



ROSE

A Phoenix Mecano Company



OPERATING AND DISPLAY ENCLOSURES

2023



In 1969 ROSE Systemtechnik GmbH was founded in Porta Westfalica, Germany. Today ROSE is one of the world's leading and innovative providers of industrial enclosure system engineering, employing over 350 people at the German headquarter.

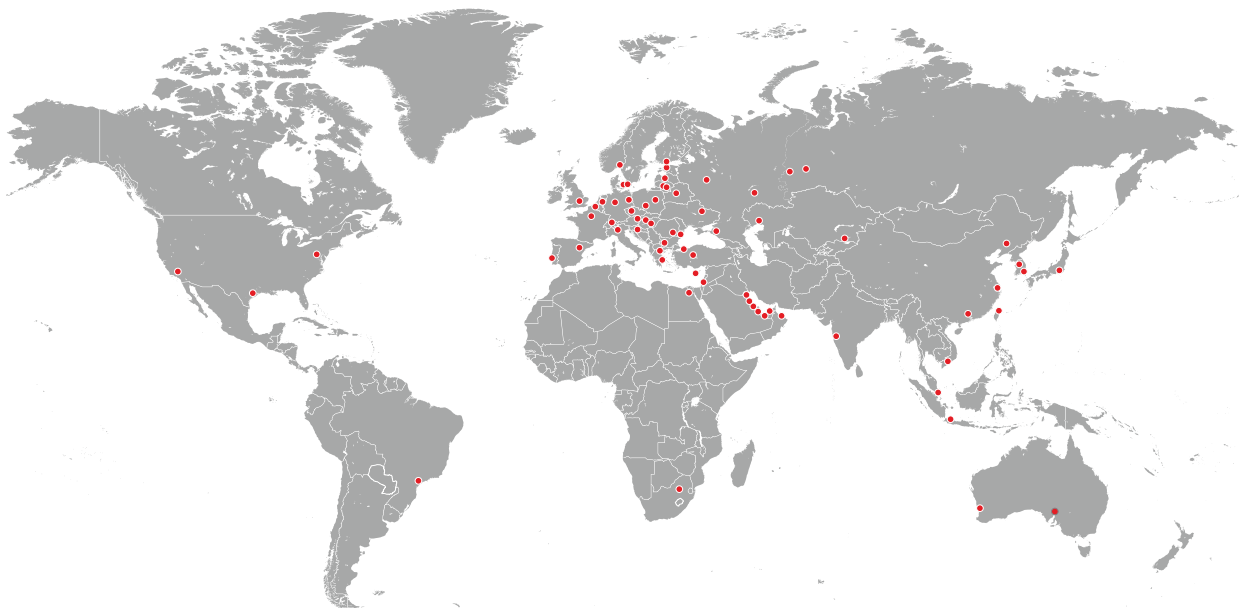
In association with Phoenix Mecano AG, Switzerland, we develop and manufacture high-quality industrial enclosures and system solutions for areas such as mechanical and plant engineering, automation engineering, potentially explosive atmospheres, instrumentation, control and automation technology, as well as the foodstuff and beverage industry.

Our product range comprises the following:

- Standard industrial enclosures made of aluminium, stainless steel and plastics for individual installations of electrical connection technology and electronic components.
- Operating and display enclosures based on aluminium profile systems and stainless steel materials for HMI applications with industrial PCs, PLC control systems and visualization units, including suspension systems.
- Components for explosion protection with junction boxes and control stations for worldwide use in potentially explosive atmospheres, as well as the petrochemical and chemical industry in both onshore and offshore environments.

Our business success is based on a wide range of products, a high quality standard, constant innovation and an exceptional level of service. You decide the condition of delivery – the un-machined enclosure, a partial assembly or a completely assembled and tested customized system solution.

Take advantage of our worldwide sales and marketing network for your international projects.



Due to their variable profile structure, ROSE operating and display enclosures are flexible in terms of height and width.

A wide selection of different profile depths offers the required space for your installations.

ROSE suspension systems made of aluminium profile offer the same flexibility.

They are available in both standard and customised lengths.

Your benefit: we provide you with your customized solution starting at 1 item - quick, cost effective and reliable.

You decide what we can do for you!

We offer you all the options – from individual components, to completely assembled and fitted combinations of operating enclosures and suspension systems.



Individual Executions based on your CI concept are no problem for us.

We would be pleased to support you - starting with the design up to the complete system, including testing and approval.

Our operating and display enclosures and suspension systems correspond to the current state of technology. Furthermore, our operating enclosures show all necessary approvals including UL approval for use in the US. Our enclosures are listed in almost all operating equipment regulations of renowned automotive manufacturers both within Germany and worldwide.



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General technical information

Enclosure selection criteria

Enclosures are generally required to protect the installed equipment from external hazards. These hazards can be varied in nature and are of decisive significance when determining the criteria for the choice of an enclosure. Essential for appraising whether an enclosure meets safety requirements is a precise definition of the hazards expected at an installation location. The most important conditions to consider are the following:

1. Protection against contact and penetration of foreign bodies
2. Protection against water penetration
3. Protection against internal and external radio interference
4. Chemical resistance
5. Temperature stability
6. Impact resistance
7. Corrosion resistance

Enclosure ratings

ROSE enclosures are classified in enclosure rating in accordance with the generally applicable guidelines contained in EN 60529 and IEC 144.

The enclosure rating is indicated by an abbreviation, which is always composed of the two letters IP and two digits relating to the protection level.

Protection class for contact and foreign bodies protection

| First digit | Designation |
|-------------|--|
| 0 | No protection |
| 1 | Protection against large foreign bodies |
| 2 | Protection against medium-sized foreign bodies |
| 3 | Protection against small foreign bodies |
| 4 | Protection against granular foreign bodies |
| 5 | Protection against dust deposits |
| 6 | Protection against dust entry |

Water protection class

| Second digit | Designation |
|--------------|---|
| 0 | No protection |
| 1 | Protection against vertical falling drip water |
| 2 | Protection against obliquely falling drip water |
| 3 | Protection against water spray |
| 4 | Protection against splashing water |
| 5 | Protection against water jets |
| 6 | Protection when flooded |
| 7 | Protection when immersed |
| 8 | Protection when submerged |

Note: The enclosure ratings given apply to unmodified enclosures as supplied. Wear and tear and temperature fluctuations may lead to a reduction in the enclosure rating.

Temperature stability

The definition of temperature stability for enclosures is based on the maximum continuous temperature at which the enclosure remains dimensionally stable and the enclosure rating remains guaranteed. The permissible brief peak temperatures are often considerably higher.

Corrosion resistance of aluminium enclosures

The corrosion resistance of aluminium enclosures is rated as good, even without special surface treatment. The use of special aluminium alloys with low copper content increases the corrosion resistance.

Additional treatments including

- chromating
 - lacquering (powder coating) and
 - the combination of chromating and lacquering
- further increase corrosion resistance.

We offer the following for critical external areas:

SWB Execution (seawater-resistant):
Purified - chromated - powder-coated
Standard colour RAL 5009, other colours on request.

For application areas with extreme UV radiation we recommend coating with a special Polyester powder.

SBG/SBGL Execution only for wet painting processes

SBG = Purified - alodine-primed

SBGL = Purified - alodine-primed - painted



Chemical resistance enclosure materials

| Chemicals | Aluminium | Stainless steel | Polycarbonate | Polyester | Polystyrene | Polyamide |
|--|-----------|-----------------|---------------|-----------|-------------|-----------|
| Acetone | + | + | - | - | - | • |
| Formic acid | • | + | 30 % | 10 % | • | - |
| Ammonia | + | + | - | - | + | 20 % |
| Petrol | + | + | • | + | • | + |
| Benzene | + | + | - | + | - | - |
| Brake fluid | / | / | - | + | / | 60° |
| Butane | + | / | + | / | - | + |
| Butanol | / | / | / | + | / | + |
| Calcium chloride | + | + | + | + | + | + |
| Chloral benzene | + | / | - | + | - | • |
| Diesel öoil | / | / | • | + | • | / |
| Vinegar | + | + | 10 % | 40 % | + max. 50 % | - |
| Formaldehyde | + | + | / | 30 % | + max. 40 % | + |
| Freon 113 | / | / | + | + | / | / |
| Fruit juice | / | + | + | + | / | + |
| Glycerine | + | + | • | + | + | + |
| Fuel oil | + | + | • | + | • | + |
| Hydraulic oil | / | / | + | + | • | + |
| Caustic potash solution | / | + | - | - | + max. 50 % | - |
| Potassium chloride | • | + | + | + | + | + |
| Potassium hydroxide | - | + | / | - | + | / |
| Linseed oil | + | + | + | + | + | + |
| Methane | + | + | - | - | + | • |
| Methylene chloride | + | + | - | - | - | - |
| Lactic acid | + | + | 10 % | + | + max. 80 % | 10 % |
| Mineral oils | / | / | + | + | + | + |
| Motor oils | / | / | + | + | + | + |
| Sodium carbonate | • | + | + | + | + | + |
| Sodium chloride | • | • | + | + | + | 10 % |
| Sodium hydroxide | + | + | / | - | / | / |
| Soda lye | / | + | - | 40 % | + max. 50 % | 10 % |
| Nitric acid | + | + | 10 % | 10 % | + max. 25 % | - |
| Hydrochloric acid | / | + | 20 % | + | + max. 10 % | - |
| Lubricating oil | + | + | + | + | / | + |
| Carbon toulphide | + | + | - | - | - | • |
| Sulphuric acid | • | + | 50 % | 70 % | + max. 50 % | - |
| Suds | / | + | • | + | / | + |
| Cleansing agent | / | + | + | / | / | / |
| Terpentine oil | / | / | / | + | - | + |
| Carbon tetrachloride | + | / | / | + | - | • |
| Toluene | + | / | - | + | - | + |
| Trichlorethylene | + | / | / | - | - | - |
| Water (dest. water, river-, / mains-, sea water) | / | + | + | + | + | + |
| Tartaric acid | / | / | 10 % | + | + | + |
| Xylene | + | / | - | + | - | + |
| Zinc sulfate | • | / | + | + | + | / |
| Citric acid | + | / | 10 % | + | + | 10 % |

The investigations, unless stated otherwise, were carried out at room temperature. Resistances can vary when two different materials come into contact with one another. We cannot therefore accept liability for this data.

Explanation of symbols

- + resistant to all concentrations
- % resistant against maximum % concentration
- C° resistant to maximum C°
- limited resistance
- not resistant
- / no information

General technical information

Chemical resistance enclosure seals and accessories

| Chemicals | Chloroprene | EPDM | NBR | Pocane | Polyurethane | PVC | Silicone |
|--|-------------|------|----------|--------|--------------|--------|----------|
| Acetone | + | + | - | + | - | - | • |
| Formic acid | + | + | - | 10 % | / | < 50 % | • |
| Ammonia | + | + | + | 10 % | / | • | + |
| Petrol | + | • | + | + | + | + | + |
| Benzene | - | - | - | + | + | - | - |
| Brake fluid | • | - | / | + | / | / | + |
| Butane | + | / | + | + | / | 50 % | - |
| Butanol | + | / | - | + | / | • | - |
| Calcium chloride | / | / | / | 10 % | / | + | / |
| Chloral benzene | - | - | - | - | - | - | - |
| Diesel oil | • | • | / | + | + | • | • |
| Vinegar | - | / | - | 10 % | / | 25 % | - |
| Formaldehyde | - | / | + | / | / | 40 % | + |
| Freon 113 | + | / | + | + | / | / | / |
| Fruit juice | + | + | / | + | + | + | + |
| Glycerine | + | + | + | + | + | + | + |
| Fuel oil | • | • | + | + | + | • | • |
| Hydraulic oil | + | / | / | + | / | / | • |
| Caustic potash solution | + | / | / | 10 % | / | + | / |
| Potassium chloride | + | + | + | 10 % | + | + | + |
| Potassium hydroxide | + | + | + | - | - | / | • |
| Linseed oil | + | + | + | + | + | + | • |
| Methane | + | / | • | + | / | / | + |
| Methylene chloride | - | / | - | - | - | - | - |
| Lactic acid | + | + | + | / | / | 10 % | / |
| Mineral oils | • | • | + | + | + | + | + |
| Motor oils | • | • | + | + | + | / | + |
| Sodium carbonate | / | / | / | 10 % | / | / | / |
| Sodium chloride | + | + | + | 10 % | + | + | + |
| Sodium hydroxide | + | + | • | - | - | • | • |
| Soda lye | 50 % | / | - | / | / | 60 % | - |
| Nitric acid | • | + | • | 10 % | - | 30 % | - |
| Hydrochloric acid | + | + | < 65 % • | 10 % | - | 30 % | / |
| Lubricating oil | • | • | + | + | + | + | + |
| Carbon toulphide | - | / | - | + | / | • | - |
| Sulphuric acid | 50 % | / | 25 % | 10 % | / | 80 % | 25 % |
| Suds | + | / | + | 10 % | • | • | + |
| Cleansing agent | + | • | / | + | • | / | + |
| Terpentine oil | - | / | + | + | / | + | - |
| Carbon tetrachloride | - | - | - | + | - | • | - |
| Toluene | - | - | - | • | - | - | - |
| Trichlorethylene | - | - | - | • | - | - | - |
| Water (dest. water, river-, mains-, sea water) | + | + | 80 C° | + | + | 40 C° | + |
| Tartaric acid | + | + | + | / | + | 10 % | + |
| Xylene | - | - | - | • | - | - | - |
| Zinc sulfate | + | + | + | / | / | 40 % | + |
| Citric acid | + | + | + | 10 % | / | 10 % | + |

The investigations, unless stated otherwise, were carried out at room temperature. Resistances can vary when two different materials come into contact with one another. We cannot therefore accept liability for this data.

Explanation of symbols

- + resistant to all concentrations
- % resistant against maximum % concentration
- C° resistant to maximum C°
- limited resistance
- not resistant
- / no information

General

In electronic engineering, enclosures are required to fulfil two tasks:

- to protect equipment against external mechanical hazards and radio interference
- to protect the environment against mechanical and electrical hazards or radio interference caused by equipment

Electromagnetic compatibility (EMC) is becoming an increasingly important factor in the choice of enclosures due to sustained advances in the development of electronic components and increased density of components on circuit boards - this being connected with increased emission of electromagnetic radio interference into the environment.

Statutory regulations

The Electromagnetic Compatibility guideline Act (EMC) had been revised on 14 December 2016 and transposes the 2014/30/EU Directive on electromagnetic compatibility into German law.

The law applies to equipment that can cause electromagnetic interference or whose operation can be impaired by electromagnetic interference.

According to § 4 - Basic requirements - these equipment must be designed and manufactured in accordance with the generally recognised rules of technology in such a way that the following two conditions are met: Firstly, the electromagnetic disturbances caused by the equipment must not render the operation of other equipment impossible. Secondly, the equipment itself must be sufficiently insensitive to interference from other equipment.

Enclosure requirements

Enclosures in themselves are not covered by the EMC legislation as they are not by definition electrical or electronic devices.

Enclosures are however largely responsible for the strength of radiation emissions and/or interference (outgoing or incoming interference) of a device. The enclosure material is also a decisive factor in the screening effect, which is the combined reflection and absorption damping properties of an enclosure.

Plastics alone have no filtering effect in the case of radio interference. Screening characteristics can be achieved with additional expensive treatments (metal vaporisation or the application of a conductive coating).

Metal enclosures on the other hand offer a highly effective basic protection against radio interference without any further treatment. Large surface area contact of individual enclosure parts (cover, enclosure sections) is an important factor in this.

Where special safety requirements exist, EMC compatibility can be increased by

- conductive seals,
- contact-uninsulated ends and
- EMC-compliant cable connections.

NEW



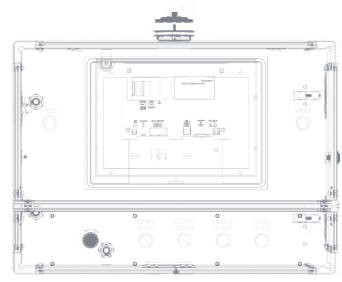
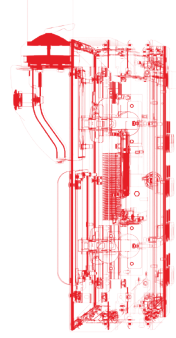
- + Individual dimensions and design in length and width
- + Lateral integration of fixtures, i.e. EKS system
- + Desk connection
- + Optional accessories, i.e. external handles or indicator lights

Due to its modern design, the SL5000 clearly stands out from previous control housings and is convincing nevertheless due to its high flexibility and modularity. Four different profiles in combination allow a wide variety of applications and profile depths - optionally as a front or rear door version. The contour of the profiles offer a very high rigidity, whereby different dimensions in height and width can be realized, also in combination with an additional desk housing.

The front can be designed as a classic front panel as well as a full-surface glass front or as a combination with dividers. The high degree of protection, individual colouring and mechanical processing round off the SL5000.

Technical Data

| | |
|-------------------------------------|--------------------------------|
| Material | Aluminium |
| Surface | powder coated |
| Colour | RAL7035 / Individual colouring |
| Dimensions | Variable in width and depth |
| Protection class | IP 54 acc. to EN 60529 |
| Gasket | CR-round cord |
| Temperature application area | -30 °C to +80 °C |



- + Individual colouring possible
- + Integration of buttons
- + 4 different profiles
- + Individual processing of the sides / front and back wall
- + Long-term availability
- + High degree of protection
- + High flexibility
- + Integration into existing suspension systems



Installation depths

| Single profile | Installation depth |
|----------------|--------------------|
| Profile 4X | 39,8 mm |
| Profile 6X | 54,5 mm |
| Profile 9X | 87,5 mm |
| Profile 13X | 131,5 mm |

Connection options

| Profile | Connection side | Carrier |
|-------------|-----------------------|---------------------------|
| Profile 4X | Backwall | FPA |
| Profile 6X | Backwall | FPA |
| Profile 9X | Side A/B and backwall | GT 48/2; GTS; FPA |
| Profile 13X | Side A/B and backwall | GT 48/2; GTS; GTN II; FPA |

The connection to our device carrier systems / third-party systems depends on the selected profiles of the SL5000. For example, the smallest profile depths (profile 4X and 6X) can only be connected via the rear wall, since the couplings of the device carrier systems do not offer enough space on side A/B. Individual processing for third-party systems/VESA is possible but must be checked!

Combinations

| Profilecombination | Installation depth | Carrier connection | Door |
|--------------------|--------------------|--------------------|------------|
| 4X + 4X | 72,4 mm | Backwall | front |
| 4X + 6X | 87,1 mm | Backwall | front |
| 4X + 9X | 120,1 mm | 9X | front |
| 4X + 13X | 164,1 mm | 13X | front |
| 6X + 4X | 87,1 mm | Backwall | front |
| 6X + 6X | 101,8 mm | Backwall | front |
| 6X + 9X | 134,8 mm | 9X | front |
| 6X + 13X | 178,8 mm | 13X | front |
| 9X + 4X | 120,1 mm | 9X | back |
| 9X + 6X | 134,8 mm | 9X | back |
| 9X + 9X | 167,8 mm | 9X | front/back |
| 9X + 13X | 211,8 mm | 13X | front |
| 13X + 4X | 164,1 mm | 13X | back |
| 13X + 6X | 178,8 mm | 13X | back |
| 13X + 9X | 211,8 mm | 13X | back |
| 13X + 13X | 255,8 mm | 13X | none |

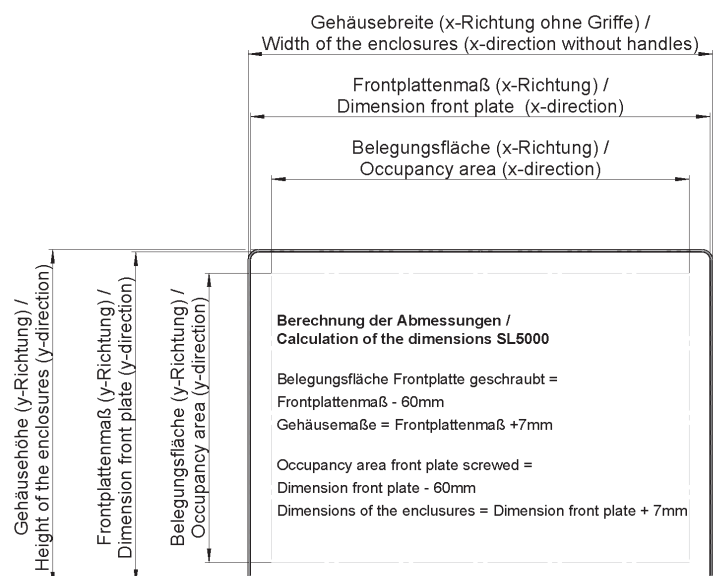
+ Front panel / Back

The front panel and the rear panel are made of aluminium with a thickness of 3 mm.

The front panel is screwed.

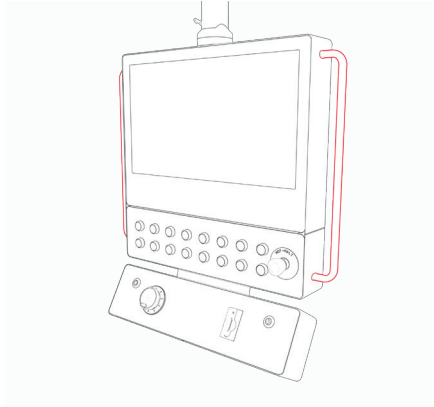
The rear panel can be screwed or hinged.

In the case of hinged profile combinations, a screwed rear wall must be used for reasons of stability to get voted!

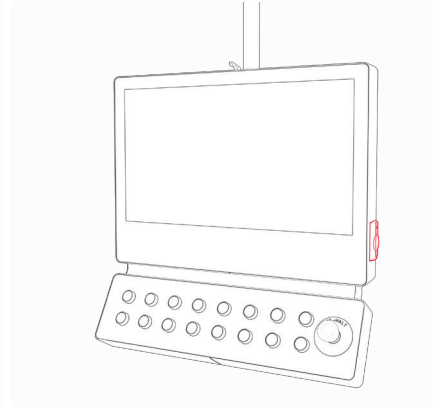


+ Highlights

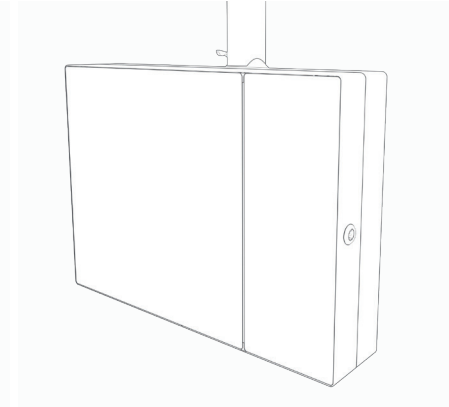
Enjoy a variable control enclosure with a variety of assembly possibilities:



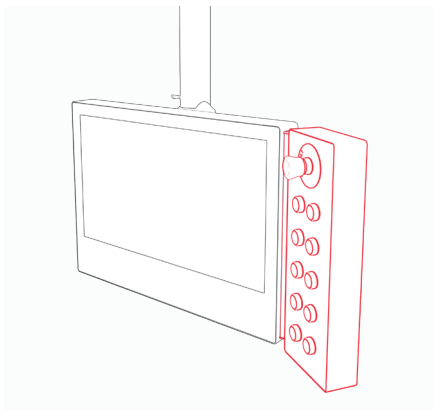
Optional accessories, i.e. external handles or indicator lights



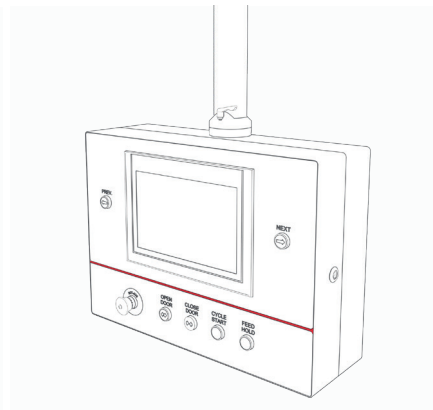
Lateral integration of fixtures, i.e. EKS system



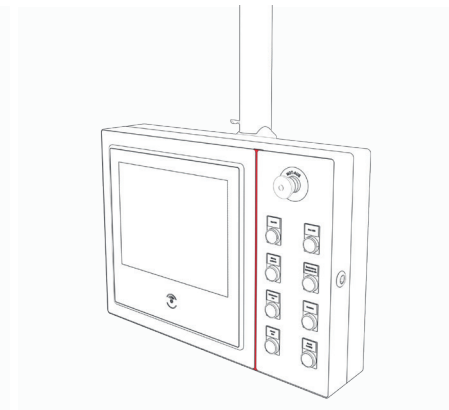
Individual dimensions and designs



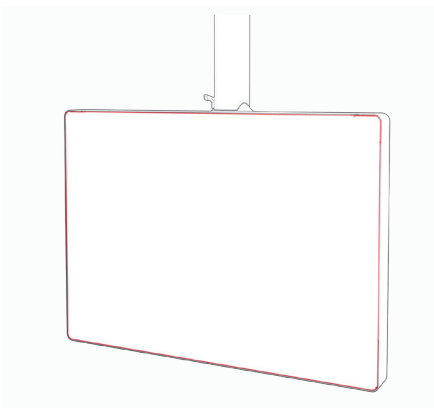
Desk connection, there are many deskversions available



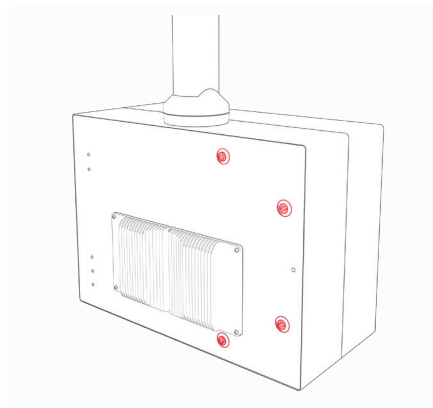
Horizontal divider



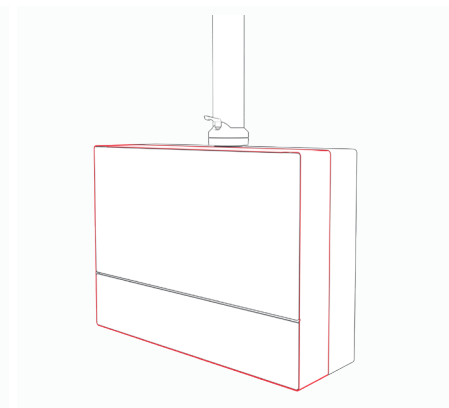
Vertical divider



Glued front panel without visible fastening screws



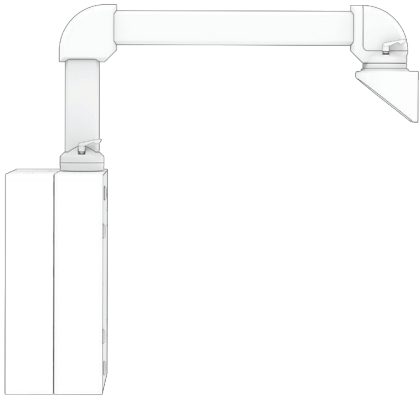
Hinged back wall



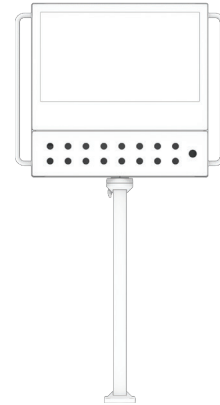
Profile combinations to increase the installation depth or as a front door

+ Connection Options

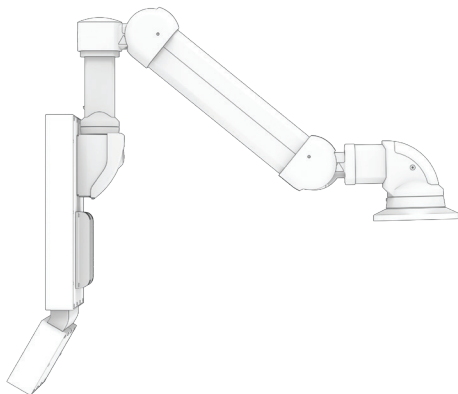
The SL 5000 system housings can be connected to the entire ROSE support arm portfolio in a variety of ways. In addition to the practical flat panel adapter, numerous rotatable, tiltable and height-adjustable adapters are available that can be combined with the support profiles to form a support arm that perfectly matches your application.



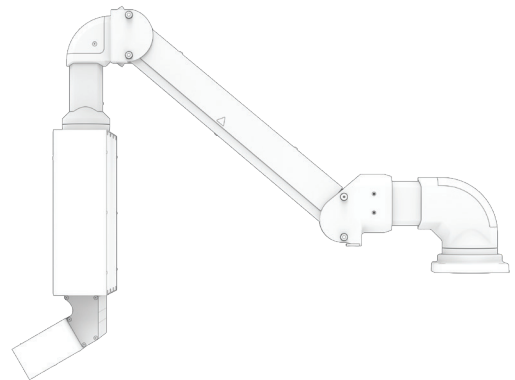
Support arm - hanging



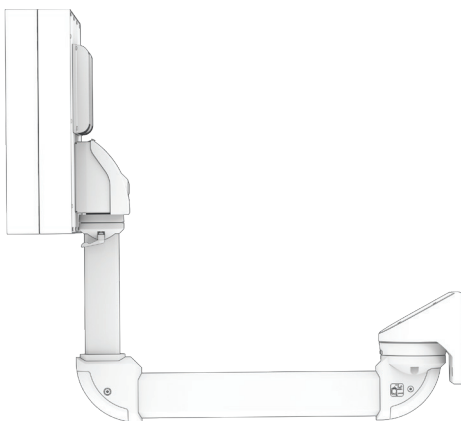
Standing pillar model



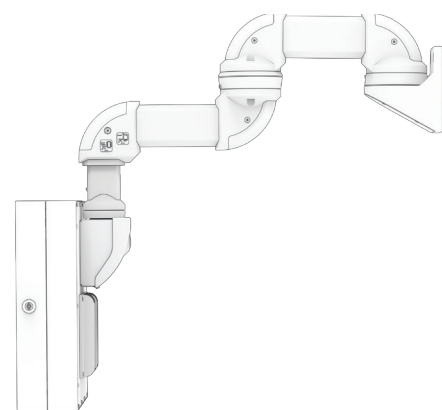
Height-adjustable support arm
(light to medium loads)
Ergonomic connection via GTV Light



Height-adjustable support arm
(heavy loads)
Ergonomic connection via GTV 2.0



Support arm - standing



Support arm - hanging
with intermediate joint

+ Application Examples

Regardless of the requirements you previously had on a control housing - with the new SL 5000, implementation is a lot easier and the result is significantly more individual. In addition to the practical divider, which can be arranged both vertically and horizontally, there are options such as front glass installation, desk attachments on each side of the housing and individual colour design for all housing components. In addition, your finished solution will benefit from the simple, timeless elegant design without classic corner pieces.



- Depth of the housing ca. 95 mm
- Full-surface glass front above with separator and aluminium front plate with integrated push-button
- Hinged back wall
- External handles on side C/D
- Console housing with integration of the EKS-system and rotary encoder
- Connection of the GTS support arm system to side A



- Depth of the housing ca. 140 mm
- Full-surface glass front above with backlit company logo / status display
- Aluminium front panel with built-in control and integration of buttons
- Hinged back wall
- Connection of the GTN II support arm system to A and B



- Depth of the housing ca. 60 mm
- Full-surface glass front
- Desk housing for button integration
- Screwed back wall
- Side integration of the EKS-system
- Connection of the flat panel adapter to the rear wall



- Depth of the housing ca. 95 mm
- Full-surface glass front
- Desk housing on the side for button integration
- Screwed back wall
- Side integration of the EKS-system
- Connection of the flat panel adapter to the rear wall



- + Modern enclosure system for control and display systems
- + Flexible size variability in height and width with 6 enclosure profiles
- + Easy mounting of door hinge
- + Integrated handle system

Included in delivery

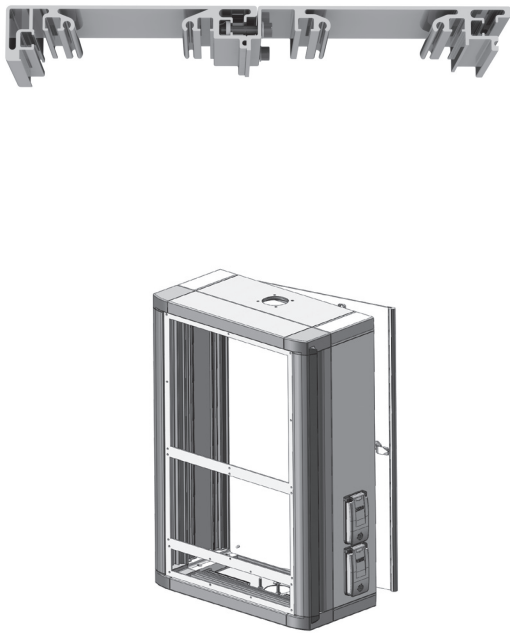
Complete enclosure system incl. corners, seals, fixing elements, rear panel or door, front panel fixing set.

Technical data

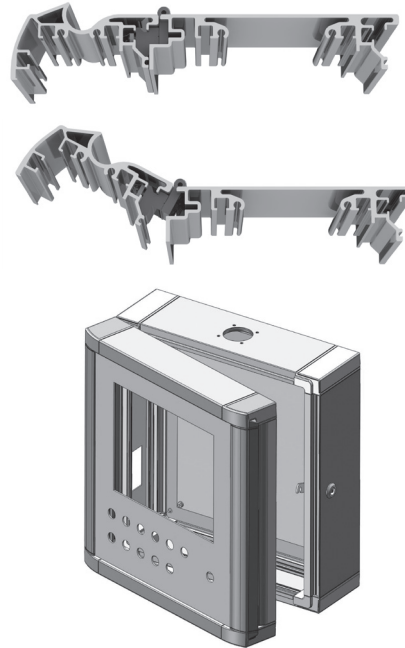
| | |
|---------------------------|--|
| Material | Profile: DIN EN 573 EN AW-AMgSi Cast corner: DIN EN AC-ALSi 12 Cu 1 (Fe) |
| Painting | Powder coating or natural anodized |
| Colour | Profile: optional RAL 7035 or natural anodized, Corner element: optional RAL 7035, light grey or RAL 9007, grey aluminium special colour on request |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -30 °C to +80 °C |

Profile connecting Executions

fixed



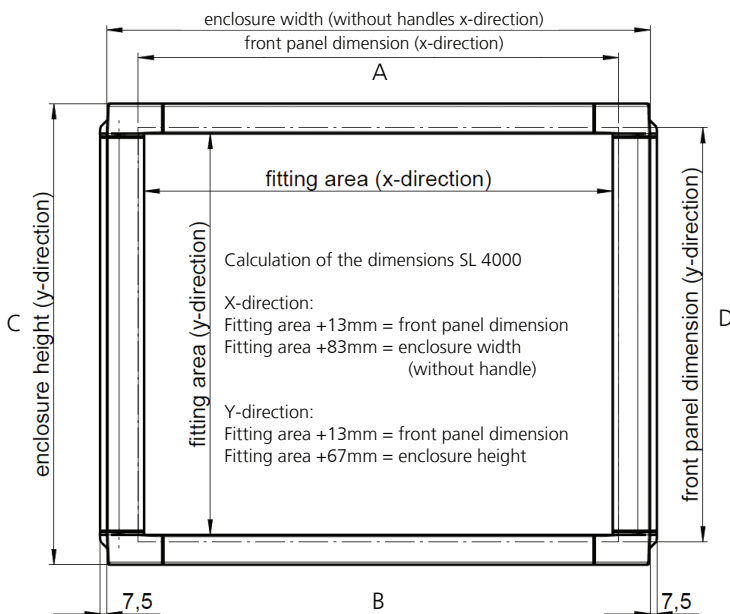
hinged



Possible combinations

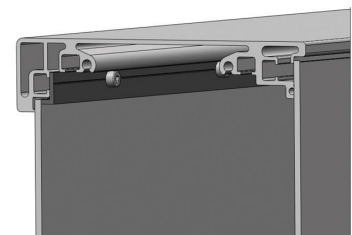
| Profile single | Combinations with hinge | Combinations fixed |
|-------------------------------------|--|-----------------------------------|
| Profile 1 (Mounting depth = 80 mm) | P 1 + 4 (Mounting depth = 220 mm) door front | P 1 + 4 (Mounting depth = 220 mm) |
| Profile 2 (Mounting depth = 130 mm) | P 2 + 4 (Mounting depth = 270 mm) door front | P 2 + 4 (Mounting depth = 270 mm) |
| Profile 3 (Mounting depth = 190 mm) | P 5 + 6 (Mounting depth = 135 mm) door front | P 5 + 6 (Mounting depth = 135 mm) |
| Profile 5 (Mounting depth = 55 mm) | P 1 + 6 (Mounting depth = 160 mm) door front | P 1 + 6 (Mounting depth = 160 mm) |
| | P 2 + 6 (Mounting depth = 210 mm) door rear | P 2 + 6 (Mounting depth = 210 mm) |
| | P 5 + 4 (Mounting depth = 195 mm) door front | P 5 + 4 (Mounting depth = 195 mm) |
| | P 3 + 6 (Mounting depth = 270 mm) door rear – on request | P 3 + 6 (Mounting depth = 270 mm) |

Front plate fitting

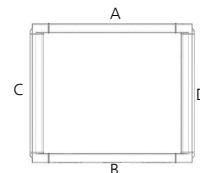


Front plate mounting

Front panel is mounted from inside. Quick and easy installation with four clamping bars.



Product range



Overview profile depth

Basic profile

Profile 5 Handle profile Side C/D

External dimensions 65/70 mm
Mounting depth 55 mm

Profile 5 Body profile Side A/B

External dimensions 65/70 mm
Mounting depth 55 mm

Profile 1 Handle profile 90 Side C/D

External dimensions 90/95 mm
Mounting depth 80 mm

Profile 1 Body profile 90 Side A/B

External dimensions 90/95 mm
Mounting depth 80 mm

Profile 2 Handle profile 140 Side C/D

External dimensions 140/145 mm
Mounting depth 130 mm

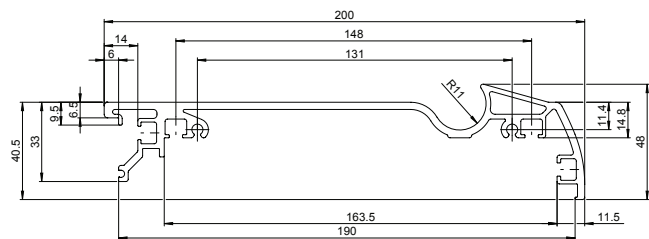
Profile 2 Body profile 140 Side A/B

External dimensions 140/145 mm
Mounting depth 130 mm

Basic profile

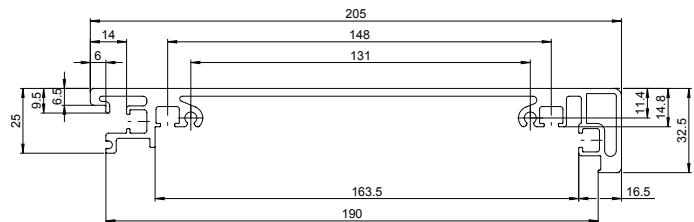
Profile 3 Handle profile 200 Side C/D

External dimensions 200/205 mm
Mounting depth 190 mm



Profile 3 Body profile 200 Side A/B

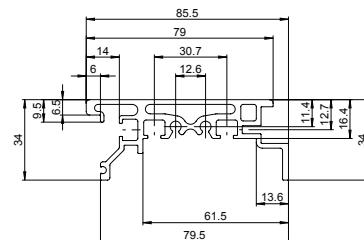
External dimensions 200/205 mm
Mounting depth 190 mm



Combination profile

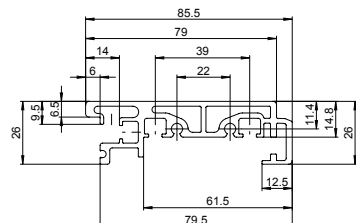
Profile 6 Side C/D

External dimensions 85,5 mm
Mounting depth 80 mm



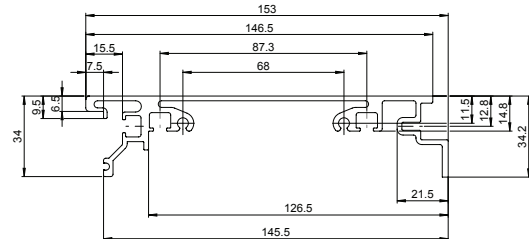
Profile 6 Side A/B

External dimensions 85,5 mm
Mounting depth 80 mm



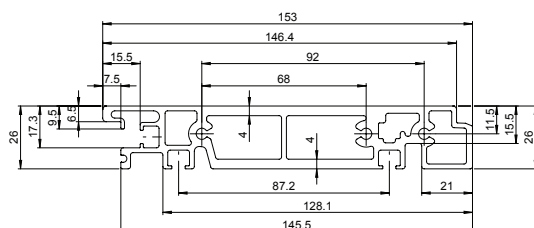
Profile 4 Side C/D

External dimensions 153 mm
Mounting depth 140 mm



Profile 4 Side A/B

External dimensions 153 mm
Mounting depth 140 mm



Overview profile combinations

Profile 1 and 4 Side C/D

Mounting depth 220 mm



Profile 1 and 4 Side A/B

Mounting depth 220 mm



Profile 2 and 4 Side C/D

Mounting depth 270 mm



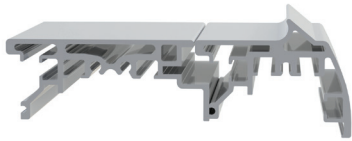
Profile 2 and 4 Side A/B

Mounting depth 270 mm



Profile 5 and 6 Side C/D

Mounting depth 135 mm



Profile 5 and 6 Side A/B

Mounting depth 135 mm



Profile 1 and 6 Side C/D

Mounting depth 160 mm



Profile 1 and 6 Side A/B

Mounting depth 160 mm



Profile 2 and 6 Side C/D

Mounting depth 210 mm



Profile 2 and 6 Side A/B

Mounting depth 210 mm



Profile 5 and 4 Side C/D

Mounting depth 195 mm



Profile 5 and 4 Side A/B

Mounting depth 195 mm

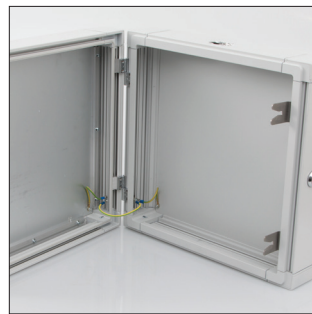


Connection to suspension system

| | GTS GTKe | GT 48/2 | GTN II | GT 50/2 | GT 60/2 | GT 80/2 | GTK 80 | GTL | Moterm |
|---------------------|-----------------------------|---------|-------------|-------------|-------------|-------------|--------|-------------|--------|
| Operating enclosure | | | | | | | | | |
| Profile 1 | • | • | | | | | | | • |
| Profile 2 | • | • | • | • | • | | | | • |
| Profile 3 | | | • | • | • | • | • | • | • |
| Profile 1+4 | | | • Profile 4 | • Profile 4 | • Profile 4 | • Profile 4 | | • Profile 4 | • |
| Profile 2+4 | | | • Profile 4 | • Profile 4 | • Profile 4 | • Profile 4 | | • Profile 4 | • |
| Profile 5+6 | • Profile 6 only GTS | | | | | | | | • |
| Profile 5 | only possible via rear wall | | | | | | | | |
| Profile 1+6 | • Profile 6 only GTS | | | | | | | | • |
| Profile 2+6 | | | • Profile 2 | • Profile 2 | • Profile 2 | | | | • |
| Profile 5+4 | | | • Profile 4 | • Profile 4 | • Profile 4 | • Profile 4 | | • Profile 4 | • |



SL 4000 with hinged rear wall



Hinged profile combination with fixed rear wall



Integrated handle profile



SL 4000 with additional fittings

Accessories

Fixing set



| Order No. | Execution |
|--------------------|-----------------|
| 10.03 60 04 | M4, set = 8 pcs |
| 10.03 60 01 | M5, set = 8 pcs |

Handle



set = 2 pcs

| Order No. | Handle length | Front plate width/height (mm) |
|--------------------|---------------|-------------------------------|
| 20.60 40 02 | 250 | 265-314 |
| 20.60 40 03 | 300 | 315-364 |
| 20.60 40 04 | 350 | 365-414 |
| 20.60 40 05 | 400 | 415-464 |
| 20.60 40 06 | 450 | 465-514 |
| 20.60 40 07 | 500 | 515-614 |
| 20.60 40 09 | 600 | 615-664 |
| 20.60 40 10 | 650 | 665-714 |
| 20.60 40 11 | 700 | 715-764 |
| 20.60 40 12 | 750 | 765-814 |
| 20.60 40 13 | 800 | 815 |

Hinge set



| Order No. | Execution |
|--------------------|---------------------|
| 20.10 90 50 | for profile 1 and 2 |
| 20.10 90 60 | for profile 3 |

Wall holder



| Order No. | Execution |
|--------------------|-----------------------------|
| 20.10 90 30 | for SL 4000 profile 2 and 3 |

Wall mounting set

| Order No. | Execution |
|--------------------|---|
| 45.80 10 99 | Locking plate GTN II with „Lütze“ cable entry and 4 spacers for wall mounting |

Aerator set



| Order No. | Execution |
|--------------------|--|
| 45.80 10 02 | Aerator consisting of 3 aerators for fixing in SL 4000 |

Further accessories see Commander system accessories

Connection - Suspension system

- Side A (top) Side B (bottom) Rear wall (on request)
 GTKe GT 48/2 GTS GTN II GT 50/2 GT 60/2 GT 80/2
 GTK 80 Moterm External system (please name drawing and manufacturer)

| | GTKe | GT 48/2 | GTS | GTN II | GT 50/2 | GT 60/2 | GT 80/2 | GTK 80 | GTL | Moterm |
|-------------|-----------------------------|---------|-----|--------|---------|---------|---------|--------|-----|--------|
| Profile 1 | x | x | x | | | | | | | x |
| Profile 2 | x | x | x | x | x | x | | | | x |
| Profile 3 | | | | x | x | x | x | x | x | x |
| Profile 5 | only possible via rear wall | | | | | | | | | |
| Profile 1+4 | | | | x | x | x | x | | x | x |
| Profile 1+6 | x | x | x | | | | | | | x |
| Profile 2+4 | | | | x | x | x | x | | x | x |
| Profile 2+6 | | | | x | x | x | | | | x |
| Profile 5+4 | | | | x | x | x | x | | x | x |
| Profile 5+6 | | | x | | | | | | | x |

Further notes

Accessories

Handles (additionally)

Number _____ Side(s) _____

- Standard (Order No.): _____
 Special length (mm) _____



Hinge set (only single profile)

Hinge side Side C (left) Side D (right)

Any further information of the position _____



Wall holder set (only single profile)

Position (side) Side C (left) Side D (right)

Any further information of the position _____



Document holder

Position (side) C (left) D (right)

Any further information of the position _____




Fixing set

- Spring nut set M4 (8 pieces) number _____
 Spring nut set M5 (8 pieces) number _____



Single interfaces (IP 65)

- USB  RJ45 

Any further information to front panel interfaces (requirements, position etc.) _____

Multiple interfaces

Interfaces and power supplies for optional mounting on the front plate, rear wall or side of the profile 2, 3 and 4.

Single flap (possible at front panel, rear wall or lateral on profile 2, 3 and 4)

Metal

- Type 1 Type 2 Type 3

Plastic with knob

- Type 4 Type 5 Type 6

Plastic with double ward lock

- Type 7 Type 8 Type 9

Double flap (possible only at front panel and rear wall)

Metal

- Type 11 Type 12 Type 13

Plastic with knob

- Type 14 Type 15 Type 16

Plastic with double ward lock

- Type 17 Type 18 Type 19

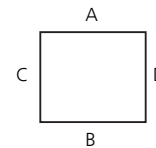
Protective contact sockets (screw terminals)

- | | |
|---|--|
| <input type="checkbox"/> USA (NEMA 5-15) | <input type="checkbox"/> Australia |
| <input type="checkbox"/> China (C C C) | <input type="checkbox"/> Denmark |
| <input type="checkbox"/> Germany (VDE) | <input type="checkbox"/> England (BS) |
| <input type="checkbox"/> Germany (VDE) orange | <input type="checkbox"/> France (UTE) |
| <input type="checkbox"/> Germany (VDE) yellow | <input type="checkbox"/> Italy (CEI 23-16) |
| <input type="checkbox"/> Switzerland | <input type="checkbox"/> India (IS 1293) |
| <input type="checkbox"/> Germany (VDE) with cutout for circuit breaker (only with double flap, plastic) | |
| <input type="checkbox"/> Other _____ | |



Data interfaces

- | | |
|--|--------------|
| <input type="checkbox"/> SUB-D9 (socket) | number _____ |
| <input type="checkbox"/> SUB-D9 (plug) | number _____ |
| <input type="checkbox"/> UB-D15 (socket) | number _____ |
| <input type="checkbox"/> RJ12, 6-pol. plastic | number _____ |
| <input type="checkbox"/> RJ45, 8-pol. Metal, CAT5e (socket/socket) | number _____ |
| <input type="checkbox"/> USB (socket/socket) | number _____ |
| <input type="checkbox"/> Other _____ | number _____ |



Combination (Specification see below)

Position

- Front plate Rear wall (door) Side profile (profile 2 / 3)

Any further information to front panel interfaces (requirements, position etc.) _____

Further accessories _____

Console attachment

Profile type

 Profile 1
(Mounting depth = 80 mm) Profile 2
(Mounting depth = 130 mm)

Front plate

 without front plate Panel direct mounting by frame / control type _____ with front plate required connector surface W x H (mm) _____ x _____

required front panel dimension W x H (mm) _____ x _____

Colour

Standard

 Profile RAL 7035, corner pieces RAL 7035 Profile natural anodized, corner pieces RAL 9007 Special colours (please specify RAL colour for each) Profile RAL _____ corner RAL _____ Profile anodized corner RAL _____

Door / Rear wall

Standard

 screwed other (on request) _____

Modification

Front plate

 Modified acc. drawing no. _____ (please enclose) Cutting W x H (mm) _____ x _____ and/or manufacturer/type of controller _____ Drill holes diameter (mm) _____ number _____

Other front plate modifications (Positionen usw.) _____

Profile

 Modified acc. drawing no. _____ (please enclose) Cutting W x H (mm) _____ x _____ Drill holes diameter (mm) _____ number _____

Other profile modifications (Positionen usw.) _____



- + Universal control enclosure for automation technology
- + Variable size in height, width and depth
- + Hinged door profile at front and rear
- + Front plate insertion from front or rear

Included in delivery

Enclosure body with rear wall, fixing elements, cover profile with corners

Technical data

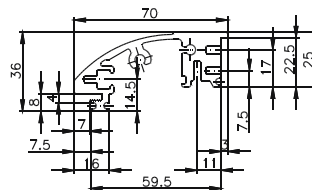
| | |
|---------------------------|--|
| Material | Profile: DIN EN 573 EN AW-ALMgSi Cast corner: DIN EN 1706 EN AC-AISI 12 Cu 1 (Fe) |
| Painting | Powder coating |
| Colour | optional RAL 7035, light grey or natural anodized special colour on request |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -30 °C to +80 °C |



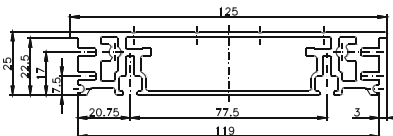
Product range

I. Profile for installation with front plate

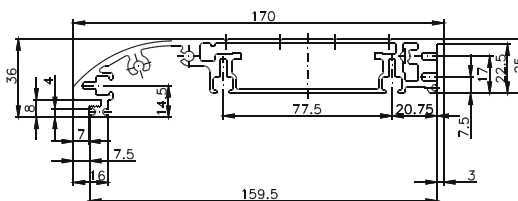
Profile 1 Hinged frame profile



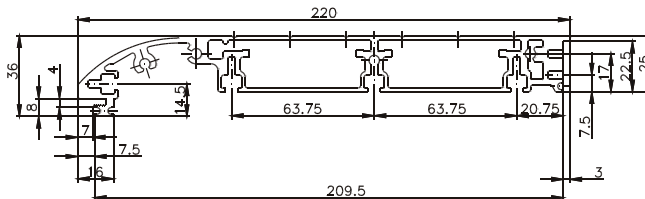
Profile 2 Intermediate frans



Profile 3 Body profile 170

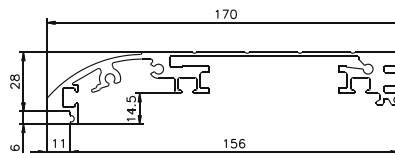
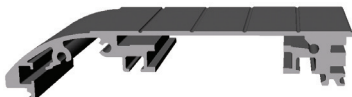


Profile 4 Body profile 220

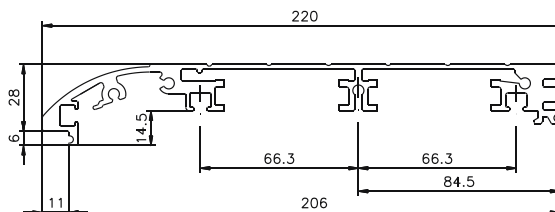


II. Profile for direct mounting of installation

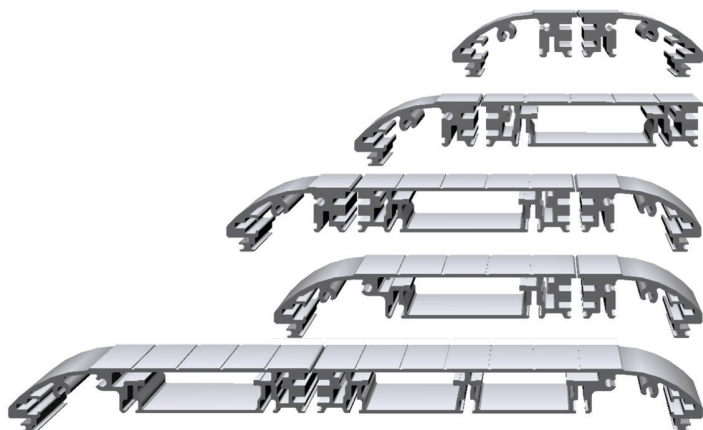
Profile 3 Direct mounting



Profile 4 Direct mounting



Example of profile combination options



Mounting depth 125 mm

Mounting depth 184 mm

Mounting depth 250 mm

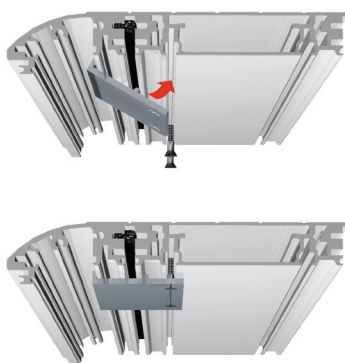
Mounting depth 225 mm

Mounting depth 375 mm

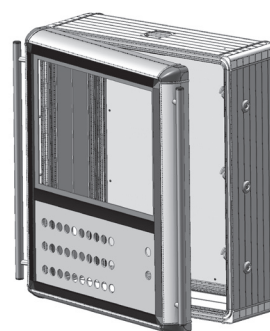
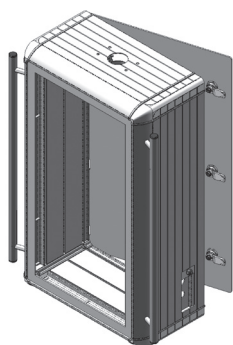
Other profile combinations on request

Profile connection options

Fixed



Hinged



Profile info:

- All profiles can be combined with one another
- Profiles can be attached with fixed or hinged connections.
- If straight profile side (see example 2) the rear panel can also be designed as a door.
- The max. mounting depth in the case of operational enclosures is 675 mm (Profile 4 + 2 + 2 + 4)
- The max. mounting depth with console attached is 425 mm (Profile 4 + 4)
- The max. enclosure size is limited by the front plate to 1000 x 1000 mm



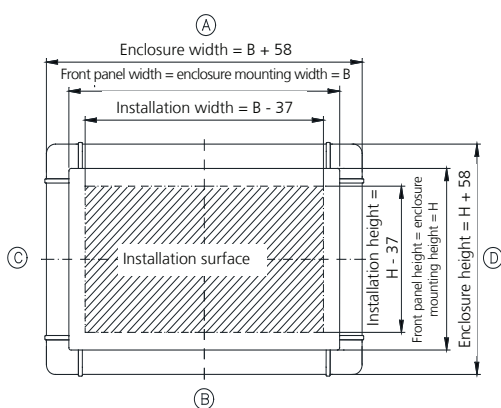
Connection to suspension system

| Profile | GTK electronic | GTS | GT 48/2 | GTN II | GT 50/2 | GT 60/2 | GT 80/2 | GTK 80 | GTL |
|-----------------------------|----------------|-----|---------|--------|---------|---------|---------|--------|-----|
| 1 | • | • | • | • | • | • | | | |
| 1 + 1 (fixed or hinged) | • | • | • | • | • | • | | | |
| 1 + 2 (hinged) | • | • | • | • | • | • | | | |
| 1 + 2 (fixed) | • | • | • | • | • | • | • | •* | |
| 1 + 2 (hinged) + 1 (hinged) | • | • | • | • | • | • | • | | |
| 1 + 2 (hinged + 1 (fixed) | • | • | • | • | • | • | • | •* | |
| 1 + 2 (fixed) + 1 (fixed) | • | • | • | • | • | • | • | • | |
| 2 | • | • | • | • | • | • | • | | |
| 3 | • | • | • | • | • | • | • | | • |
| 3 + 1 (hinged) | | | | • | • | • | • | | • |
| 3 + 1 (fixed) | | | | • | • | • | • | •** | • |
| 3 + 2 (hinged) + 1 (hinged) | | | | • | • | • | • | | • |
| 3 + 2 (fixed) + 1 (hinged) | | | | • | • | • | • | • | • |
| 4 | | | | • | • | • | • | • | • |

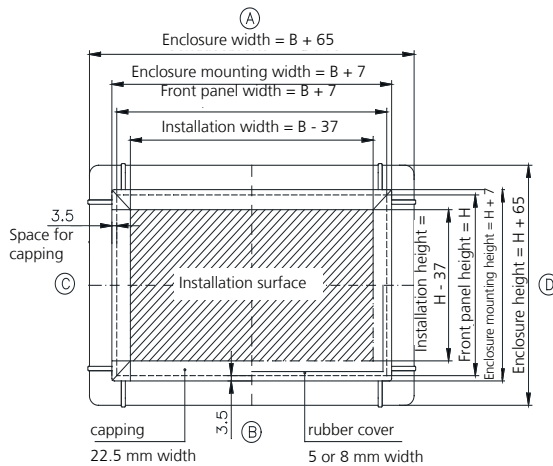
* 10 mm projection downstream of at rear
 ** every 5 mm projection to front and at rear

Front plate fitting

Execution I
 Front plate without cover profile or rubber cover



Execution II
 Front plate with cover profile or rubber cover surrounding

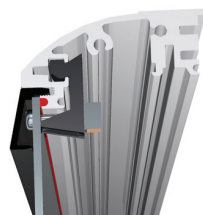


Front plate fastening

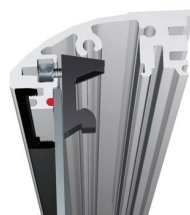
- Zinc diecast latch with slot for insertion of M4 or M5 rack connecting nuts screwed Execution
- Turn the catch round to enable the front plate to be screwed in directly from the back



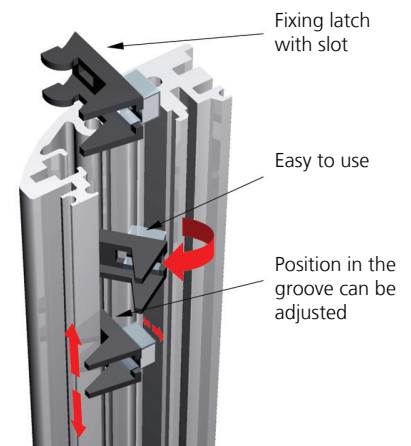
- Flush closure with profile



- With M4 or M5 rack connecting nut
- Concealed capping screw heads



- Latch reversed screwed into profile



Accessories

Fastening set



| Order No. | Execution |
|--------------------|----------------------|
| 20.60 10 01 | M4 |
| 20.60 10 02 | M5 |
| 20.60 10 03 | Set for front plates |

FCP - Foil Control Panel



| Order No. | Execution |
|--------------------|-----------|
| 20.60 10 50 | FCP 240/3 |
| 20.60 10 51 | FCP 335/6 |
| 20.60 10 52 | FCP 483/8 |

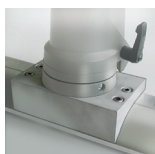
Handle



set = 2 pcs

| Order No. | Handle length (mm) | Front plate width/height (mm) |
|--------------------|--------------------|-------------------------------|
| 20.60 40 02 | 250 | 265-314 |
| 20.60 40 03 | 300 | 315-364 |
| 20.60 40 04 | 350 | 365-414 |
| 20.60 40 05 | 400 | 415-464 |
| 20.60 40 06 | 450 | 465-514 |
| 20.60 40 07 | 500 | 515-614 |
| 20.60 40 09 | 600 | 615-664 |
| 20.60 40 10 | 650 | 665-714 |
| 20.60 40 11 | 700 | 715-764 |
| 20.60 40 12 | 750 | 765-814 |
| 20.60 40 13 | 800 | 815 |

Coupling flange



| Order No. | Execution |
|--------------------|----------------------------|
| 20.60 10 07 | GT 48/2 and GTK electronic |

Mounting bracket set

| Order No. |
|--------------------|
| 10.03 31 01 |

Installation rail set



| Order No. | Execution |
|--------------------|--------------------|
| 54.00 00 16 | Rail length 80 mm |
| 54.00 00 24 | Rail length 160 mm |
| 54.00 00 32 | Rail length 240 mm |



Accessories

Adapter plate P1/P2 onto GT 80/2

Order No.

20.60 10 08

Locking plate

For closing of unneeded coupling holes

Order No.

Execution

| | |
|-------------|-------------------------------------|
| 20.60 30 01 | powdered GT 48/2 and GTK electronic |
| 20.60 30 02 | powdered GT 50/2 and GT 60/2 |
| 20.60 30 03 | powdered GT 80/2 |
| 20.60 30 04 | powdered GTK 80 |
| 20.60 30 05 | powdered GTN II |
| 20.60 30 11 | anodized GT 48/2 and GTK electronic |
| 20.60 30 12 | anodized GT 50/2 and GT 60/2 |
| 20.60 30 13 | anodized GT 80/2 |
| 20.60 30 14 | anodized GTK 80 |
| 20.60 30 15 | anodized GTN II |

Control attachment set



30° or 50° inclination possible depending on assembly. Standard length 300 mm, larger or smaller lengths on request.

Insert bay



Available for Profiles 2, 3 and 4. The ingress protection is determined by the fitted equipment. It is possible to modify the interior enclosure panel walls individually. The size of the enclosure gives the maximum connector area. In the case of profile combinations it is provided on the hinge side!

Linking bar



For installation of two or more front plates within one enclosure

Further accessories see Commander system accessories

Company _____ Telephone _____

Contact _____ Telefax _____

Address _____ E-Mail _____

Project _____ Quantity _____ Lot size _____

Dimensions Operating enclosures

For console versions, please also fill out the following page - „Console attachment enclosures“.

Mounting depth

T (mm) _____ of combination of profiles (please always specify from front to rear):

Profile no. _____ + Profile no. _____ + Profile no. . _____ + Profile no. _____

Connection: fixed hinged side _____ fixed hinged side _____ fixed hinged side _____

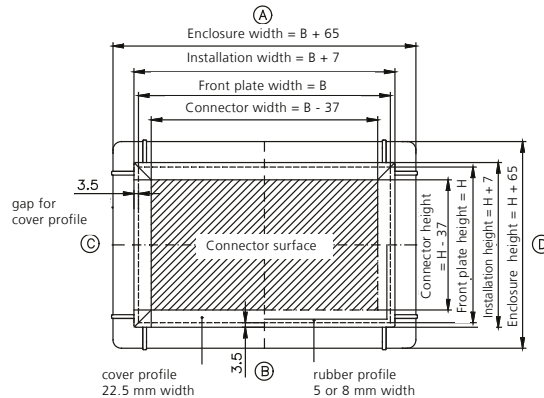
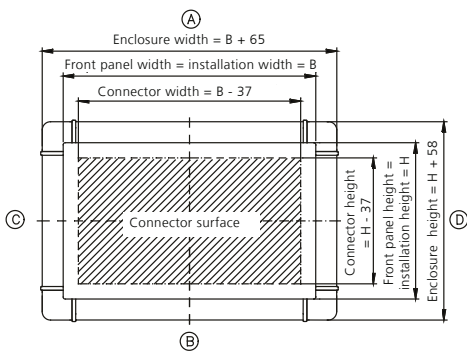
Dimensions

Please specify front panel dimensions W x H (mm) _____ x _____

and/or manufacturer/type _____

Version I
Front panel without cover profile or rubber profile

Version II
Front panel surrounding with cover profile or rubber profile



Front panel

- without front panel (direct mounting) with M4 fixing set or with M5 fixing set
- Front panel with stud bolts (flush without cover profile, dimensions, see drawing version I)
- Front panel with stud bolts (with cover profile, dimensions, see drawing version II)
- Front panel with drill holes
- Cover profile 22.5 mm (plastic black, dimensions s. version II)
- Cover profile for front panel, 5 mm rubber (Version II)
- Cover profile for front panel, 8 mm rubber (VersionII)
- other front panel _____
- Finish in accordance with drawing no.: _____ (please attach)
and/or specify manufacturer/controller type: _____
- Separation fin quantity _____ Position in accordance with drawing-no.: _____



Accessories SL 3000 for enquiry / order

Company _____

Rear wall

with straight closure screwed hinged, hinges side _____

with rounded closure screwed, flush with stud bolts, flush

Modified according to drawing-no. _____ (please enclose if available)

Lock types

Square 8 mm (Standard)

Square 7 mm Triangular 7 mm Triangular 8 mm

Double ward 3 mm Other _____

Colour

Standard: Profile RAL 7035, corner pieces RAL 9006, corner caps RAL 7035 powdered or

Natural anodized profile, corner pieces RAL 9006, corner caps RAL 9007 powdered

Special colours (please specify RAL colour for each):

Profile RAL _____ Corner pieces RAL _____ Corner caps RAL _____

Suspension system

GTK electronic, side _____ GT 48/2, side _____ GTS, side _____

GT 50/2, side _____ GT 60/2, side _____ GT 80/2, side _____

GTN II, side _____ GTK 80, side _____ GTL, side _____

Moterm Moterm with console

Connection to console connector

Connection to profile

Other _____ Drawing-no.: _____ side _____

Total weight of fittings approx. _____ kg

for profile combination: Coupling hole on profile no. _____ or optional

specify weight distribution _____

Handle set

Quantity _____ side _____ Special colour RAL _____

Other accessories

Disc drive-/interface bay with flap (as for SL 2000), side _____

Insert slot for: _____ side _____

Finish in accordance with drawing-no.: _____

Other modifications/ special versions

Further modifications _____

in accordance with drawing-no.: _____

Drawing no.: D-SL 3000 - _____ Bl. 2

stated by Rose profile length: width _____ mm height _____ mm

Dimensions

Console attachment enclosures

Company _____

Mounting depth

T (mm) _____ of combination of profiles (please always specify from front to rear):

Profile no. _____ + Profile no. _____

Connection: fixed hinged, page _____

Dimensions

Front panel total dimensions (dimension sheet s. operational enclosure)

W x H (mm) _____ x _____ Version I Version II

and/or manufacturer/type of controller _____

Front panel

without front panel (direct mounting) with M4 fixing set or with M5 fixing set

Front panel with stud bolts (flush without cover profile, dimensions, see drawing version I)

Front panel with stud bolts (with cover profile, dimensions, see drawing version II)

Front panel with drill holes

Cover profile 22.5 mm (plastic black, dimensions s. version II)

Cover profile for front panel, 5 mm rubber (Version II)

Cover profile for front panel, 8 mm rubber (Version II)

other front panel _____

Finish in accordance with drawing no.: _____ (please attach)

and/or specify manufacturer/controller type: _____

Separation fin quantity _____ Position in accordance with drawing-no.: _____

Rear wall

with straight closure screwed hinged, hinges side _____

with rounded closure screwed, flush with stud bolts, flush

Modified according to drawing-no. _____ (please enclose if available)

Lock types

square 8 mm (standard) square 7 mm double ward 3 mm

triangular 7 mm triangular 8 mm Other _____

Colour

Standard: Profile RAL 7035, corner pieces RAL 9006, corner caps RAL 7035 powdered or

Natural anodized profile, corner pieces RAL 9006, corner caps RAL 9007 powdered

Special colours (please specify RAL colour for each):

Profile RAL _____ Corner pieces RAL _____ Corner caps RAL _____

Console attachment set

Standard 30° Standard 50°

Handle set

Quantity _____ side _____ Special colour RAL _____

Other accessories

Disc drive-/interface bay with flap (as for SL 2000), page _____

Insert slot for: _____ side _____

Finish in accordance with drawing-no.: _____

Other modifications/ special versions

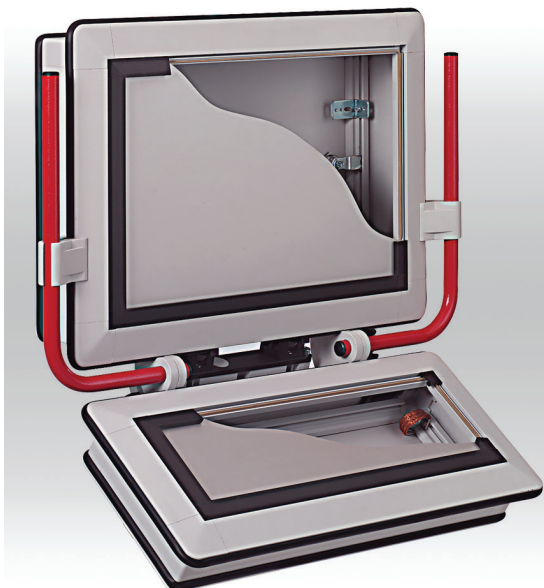
Further modifications _____

in accordance with drawing-no.: _____

Drawing no.:
stated by Rose

D-SL 3000 - _____ Bl. 3
profile length: width _____ mm height _____ mm





- + Enclosure system for control and display fittings
- + Variable size available in width and depth
- + All-round adaptation capabilities for accessories
- + Front panel insertion from front and rear

Included in delivery

Enclosure body with rear panel or door, front panel fixing set, cover profile and T-groove cover.

Technical data

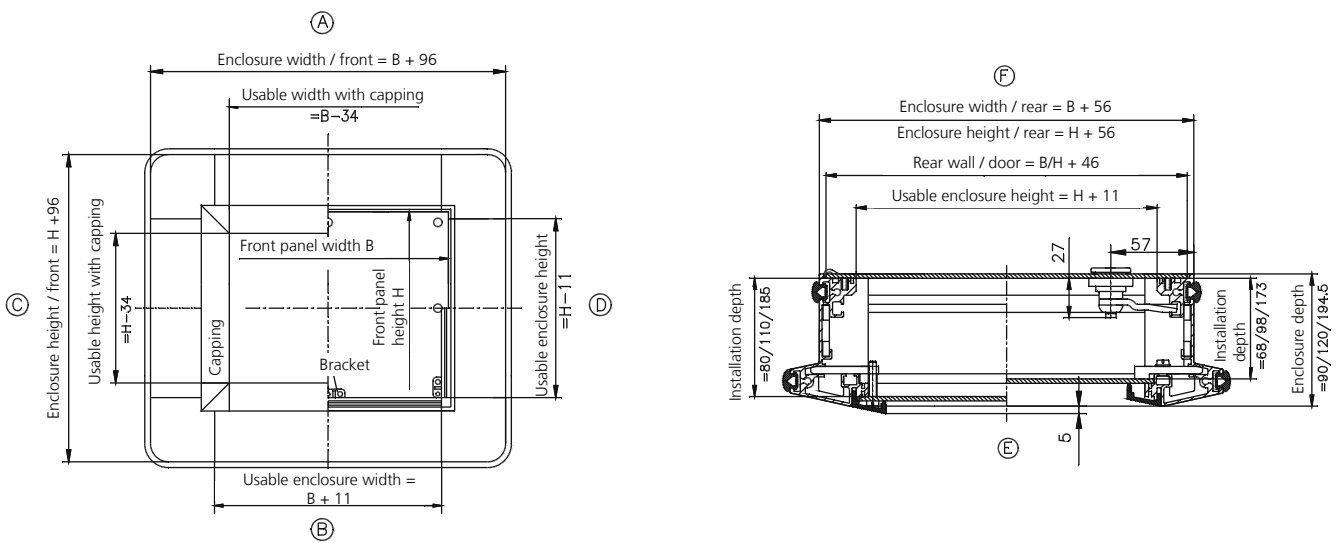
| | |
|---------------------------|---|
| Material | Profile: DIN EN 573 EN AW-AMgSi Front plate, rear wall: DIN EN 573 EN AW-AMg3 Corner pieces: DIN EN 1706 EN AC-AISI 12 (Fe) |
| Painting | Powder coating |
| Colour | RAL 7035, light grey Handle tube: powdered RAL 3003, ruby red |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -30 °C to +80 °C |

Product range

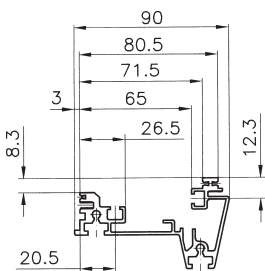
| Front plate dimensions H x W (mm) | Profile 1 Mounting depth 80,5 mm | Weight (g) | Profile 2 Mounting depth 110 mm | Weight (g) | Profile 3 Mounting depth 185 mm | Weight (g) | Front plate with drill hole (insert from front) | Weight (g) | Front plate without drill hole (insert from rear) | Weight (g) |
|--------------------------------------|--|---------------|---------------------------------------|---------------|---------------------------------------|---------------|---|---------------|---|---------------|
| Rear wall screwed | | | | | | | | | | |
| 267 x 483 | 19.50 65 01 | 4700 | 19.50 95 01 | 5500 | 19.50 19 01 | 6700 | 19.60 00 01 | 1050 | 19.60 00 11 | 1030 |
| 312 x 483 | 19.51 65 01 | 5100 | 19.51 95 01 | 5900 | 19.51 19 01 | 7100 | 19.60 01 01 | 1200 | 19.60 01 11 | 1220 |
| 356 x 483 | 19.52 65 01 | 5400 | 19.52 95 01 | 6300 | 19.52 19 01 | 7500 | 19.60 02 01 | 1400 | 19.60 02 11 | 1400 |
| 155 x 483 | 19.53 65 01 | 4100 | 19.53 95 01 | 4600 | - | - | 19.60 04 01 | 600 | 19.60 04 11 | 600 |
| Special sizes* | 19.59 65 01 | | 19.59 95 01 | | 19.59 19 01 | | 19.60 03 01 | | 19.60 03 11 | |
| Door at rear | | | | | | | | | | |
| 267 x 483 | 19.50 65 00 | 4900 | 19.50 95 00 | 5600 | 19.50 19 00 | 6600 | 19.60 00 01 | 1050 | 19.60 00 11 | 1030 |
| 312 x 483 | 19.51 65 00 | 5200 | 19.51 95 00 | 6000 | 19.51 19 00 | 7200 | 19.60 01 01 | 1200 | 19.60 01 11 | 1220 |
| 356 x 483 | 19.52 65 00 | 5500 | 19.52 95 00 | 6400 | 19.52 19 00 | 7600 | 19.60 02 01 | 1400 | 19.60 02 11 | 1400 |
| 155 x 483 | 19.53 65 00 | 4200 | 19.53 95 00 | 4700 | - | - | 19.60 04 01 | 600 | 19.60 04 11 | 600 |
| Special sizes* | 19.59 65 00 | | 19.59 95 00 | | 19.59 19 00 | | 19.60 03 01 | | 19.60 03 11 | |

* Please specify front panel dimensions

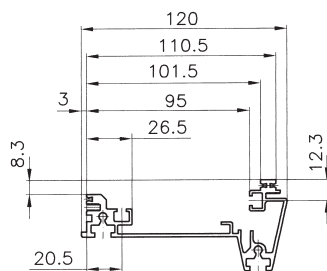
Technical details



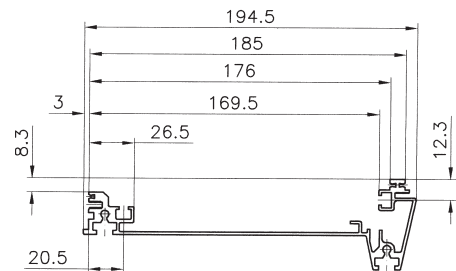
Profile



Profile 1



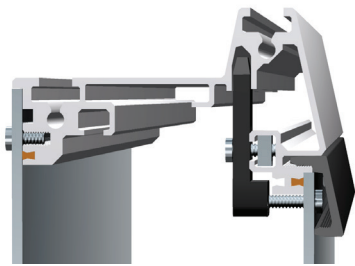
Profile 2



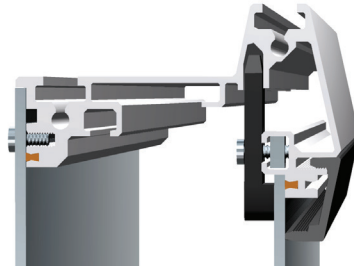
Profile 3



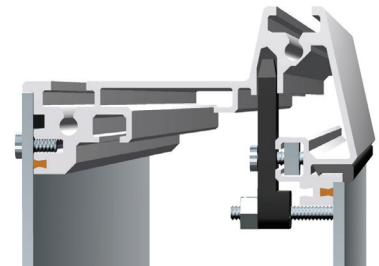
Front plate fastening



Front panel installation screwed from front



Front panel installation from rear



Front panel installation with stud bolts

Accessories

Handle set



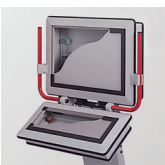
| Order No. | Execution |
|--------------------|--|
| 19.60 20 01 | Set = 2 brackets, 1 tube, L = 256 mm |
| 19.60 20 02 | Handle corner set = 3 brackets, 1 tube, L = 556/395 mm |
| 19.60 20 06 | Set = 2 brackets, 1 tube, L = 472 mm |
| 19.60 20 04 | Set = 2 brackets, 1 tube, L = 301 mm |
| 19.60 20 05 | Set = 2 brackets, 1 tube, L = 345 mm |
| 19.60 20 99 | Set = 2 brackets, 1 tube, special length |

Coupling flange



| Order No. | Execution |
|--------------------|---|
| 19.60 20 03 | Profile 1 for GT 48/2 and GTK electronic (GTK electronic only 49.45 73 00 and 49.45 75 00) |
| 19.60 20 11 | Profile 2 for GT 48/2 and GTK electronic |
| 19.60 20 12 | Profile 3 for GT 48/2 and GTK electronic |
| 19.60 20 07 | Profile 2 for GT 50/2, GT 60/2 and GTN II |
| 19.60 20 08 | Profile 3 for GT 50/2, GT 60/2 and GTN II |
| 19.60 20 13 | Profile 3 for GT 80/2 and GTK 80 |
| 19.60 20 14 | Profile 2 for GT 80/2 |
| 19.60 20 15 | Profile 1 for GTS |
| 19.60 20 16 | Profile 2 for GTS |

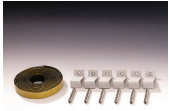
Control attachment set



| Order No. | Execution |
|--------------------|--|
| 19.59 00 11 | 15° inclination fixed |
| 19.59 00 12 | 30° inclination fixed |
| 19.59 00 13 | adjustable |
| 19.59 00 98 | Control attachment set, 15° inclination fixed, special length* |
| 19.59 00 99 | Control attachment set, 30° inclination fixed, special length* |

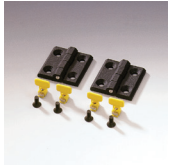
Accessories

Control panel installation set



| Order No. | Execution |
|--------------------|-----------------------------|
| 19.60 10 03 | for profile 3, (6 pcs) |
| 19.60 10 00 | for profile 1 and 2 (6 pcs) |

Hinge set



| Order No. |
|--------------------|
| 19.60 10 08 |

Quick fastener set



| Order No. | Execution |
|--------------------|-------------------------------|
| 19.60 10 07 | for frontplate (Set = 12 Stk) |

Linking bar



| Order No. | Execution |
|--------------------|----------------|
| 19.59 00 20 | 483 mm |
| 19.59 00 21 | Special length |

Spring nut set

| Order No. | Execution |
|--------------------|------------|
| 10.03 60 01 | M5 (8 pcs) |

Fixing set



| Order No. | Execution |
|--------------------|--|
| 19.60 10 01 | Fixing set 1 (12 spring nuts, brackets, screws) M5 |
| 19.60 10 02 | Fixing set 2 (30 spring nuts, brackets, screws) M5 |

Further accessories see Commander system accessories



Company _____ Telephone _____

Contact _____ Telefax _____

Address _____ E-Mail _____

Project _____ Quantity _____ Lot size _____

Operation enclosures

Execution

Door rear wall screwed

Dimensions

Profile 1 Profile 2 Profile 3

Recessed rear panel for _____ mm mounting depth

Please specify front panel dimensions or manufacturer/controller type:



W x H (mm) _____ x _____

or manufacturer/type _____



W x H (mm) _____ x _____

or manufacturer/type _____



W x H (mm) _____ x _____

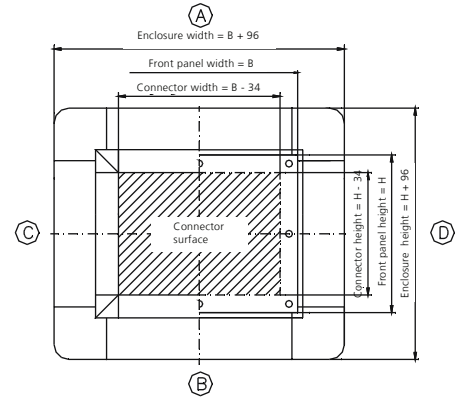
or manufacturer/type _____

Front panel

3 mm, with drill holes 3 mm, without drill holes other _____ mm

Finish in accordance with drawing (please attach)

or state manufacturer/controller type: _____



Keyboard enclosures

Execution

Door rear wall screwed

Dimensions

Profile 1 Profile 2

Please specify the number and dimensions of the front panel or the manufacturer and controller type.



W x H (mm) _____ x _____ or manufacturer/type _____



W x H (mm) _____ x _____ or manufacturer/type _____

Front panel

3 mm, with drill holes 3 mm, without drill holes other _____ mm

Finish in accordance with drawing (please attach)

or state manufacturer/controller type: _____

Console attachment set

standard _____ (Order No.) Custom length _____ mm

Suspension system

- GTK electronic / GT 48/2, on side _____
- GT 50/2 / GT 60/2, on side _____
- GT 80/2 / GTK 80, on side _____
- GTN II, on side _____
- GTS, on side _____
- other _____ on side _____
- Moterm Operational enclosure from 236 mm front panel width
Console enclosure (fixed inclination) from 440 mm front panel width
Console enclosure (fixed inclination) from 580 mm front panel width

Handle set

Standard _____ (Order No.) Mounting side _____
 Special length _____ mm Mounting side _____

Colour

Standard (RAL 7035, handle red RAL 3003) Special colour (RAL) _____

Other accessories

- Disk mounting bay, mounting side _____
- Hinge set, mounting side _____
- Keyboard holder
- Document holder
- Separating strip, number _____
- Panel mounting for profile 1
- Panel mounting for profile 2
- Panel mounting for profile 3
- Fixing set 12-piece
- Fixing set 30-piece
- Quick fixing set
- Spring nut set
- Rubber cover narrow 7 mm
- Rubber cover narrow 5 mm



- + Aluminium profile compact commander in 2 widths
- + Integrated cooling system
- + External system groove
- + Variable profile lengths

Included in delivery

Profile enclosure body, on rear side door or screwed wall; fastening elements for front panel; front panel order separately

Technical data

| | |
|---------------------------|--|
| Material | Enclosure profile: DIN EN 573 EN AW-AlMgSi Enclosure lid: DIN EN 1706 EN AC-AISI 12 (Fe) |
| Painting | Powder coating |
| Colour | Enclosure body and enclosure lid: RAL 7035, light grey Multi function profile: RAL 9005, jet black |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -30 °C to +65 °C |



Product range

| Type | Order No. | Order No. Front plate | Weight (g) |
|-----------------|--------------------|--------------------------|------------|
| CT 110-350-S | 20.80 10 10 | 20.80 91 01 | 7000 |
| CT 110-520-S | 20.80 10 20 | 20.80 91 02 | 8500 |
| CT 110-SL-S | 20.80 10 99 | 20.80 91 98 | - |
| CT 110-350-S-GT | 20.80 11 10 | 20.80 91 01 | 7000 |
| CT 110-520-S-GT | 20.80 11 20 | 20.80 91 02 | 8500 |
| CT 110-SL-S-GT | 20.80 11 99 | 20.80 91 98 | - |
| CT 145-350-S | 20.80 40 10 | 20.80 91 03 | 9600 |
| CT 145-520-S | 20.80 40 20 | 20.80 91 04 | 11400 |
| CT 145-SL-S | 20.80 40 99 | 20.80 91 99 | - |
| CT 145-350-S-GT | 20.80 42 10 | 20.80 91 03 | 9600 |
| CT 145-520-S-GT | 20.80 42 20 | 20.80 91 04 | 11400 |
| CT 145-SL-S-GT | 20.80 42 99 | 20.80 91 99 | - |

SL = special length

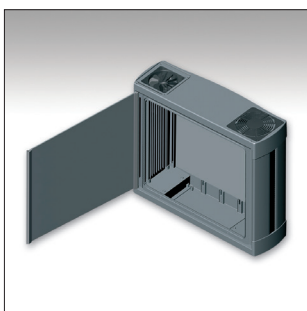
Suspension adaptation

for adaptation of ROSE suspension systems

- GT 48 and GTK electronic for ComTronic 110
- GTN II for ComTronic 145
- other machining by version "without coupling hole" available

| Type | GT 48/2 GTS | GTK electronic | GTN II | without coupling hole |
|----------------|----------------|----------------|--------|--------------------------|
| CT110-350-S | | | | • |
| CT110-520-S | | | | • |
| CT110-SL-S | | | | • |
| CT110-350-S-GT | • | • | | |
| CT110-520-S-GT | • | • | | |
| CT110-SL-S-GT | • | • | | |
| CT145-350-S | | | | • |
| CT145-520-S | | | | • |
| CT145-SL-S | | | | • |
| CT145-350-S-GT | | | • | |
| CT145-520-S-GT | | | • | |
| CT145-SL-S-GT | | | • | |

Rear wall mounting



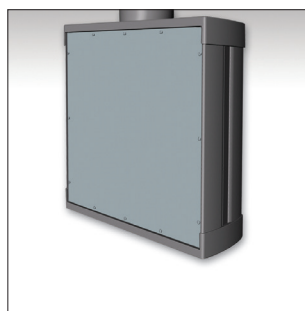
1. Door with fast lock system

- Standard version
- Hinge side is fixed by pin screw with blind plugs
- Lock side is provided only by pin screws



2. Door with turn bolt fastener

- Option available
- Hinge side is fixed by pin screw with blind plugs
- Lock side is provided with two turn bolt fasteners



3. Rear wall completely closed

- Optional available
- Rear wall fixed by screws

Accessories

Front plate

| Order No. | Execution |
|--------------------|------------------------------|
| 20.80 91 01 | for 20.80 10 10; 20.80 11 10 |
| 20.80 91 02 | for 20.80 10 20; 20.80 11 20 |
| 20.80 91 98 | for 20.80 10 98; 20.80 11 99 |
| 20.80 91 03 | for 20.80 40 10; 20.80 42 10 |
| 20.80 91 04 | for 20.80 40 20; 20.80 42 20 |
| 20.80 91 99 | for 20.80 40 99; 20.80 42 99 |

Handle set



| Order No. | Execution |
|--------------------|------------------------------|
| 20.80 90 02 | L = 350 mm (set = 2 pcs) |
| 20.80 90 03 | L = 500 mm (set = 2 pcs) |
| 20.80 90 99 | Special length (set = 2 pcs) |

Mounting set

| Order No. | Execution |
|--------------------|--|
| 10.03 31 01 | Mounting bracket set (4 brackets, spring nuts, screws) |

Cover plate

| Order No. | Execution |
|--------------------|--------------------|
| 20.80 90 04 | for CT 110 (4 pcs) |
| 20.80 90 05 | for CT 145 (4 pcs) |

Wall holder



| Order No. | Execution |
|--------------------|-----------|
| 20.80 90 01 | |

Ventilator



| Order No. | Execution |
|--------------------|--|
| 83.90 00 04 | Ventilator 60 for ComTronic 110 (1 pc) |
| 83.90 00 05 | Ventilator 92 for ComTronic 145 (1 pc) |

NoVoTronic-adapter



| Order No. | Execution |
|--------------------|-------------------------|
| 20.80 90 06 | NoVoTronic-adapter P80 |
| 20.80 90 07 | NoVoTronic-adapter P100 |
| 20.80 90 08 | NoVoTronic-adapter P160 |

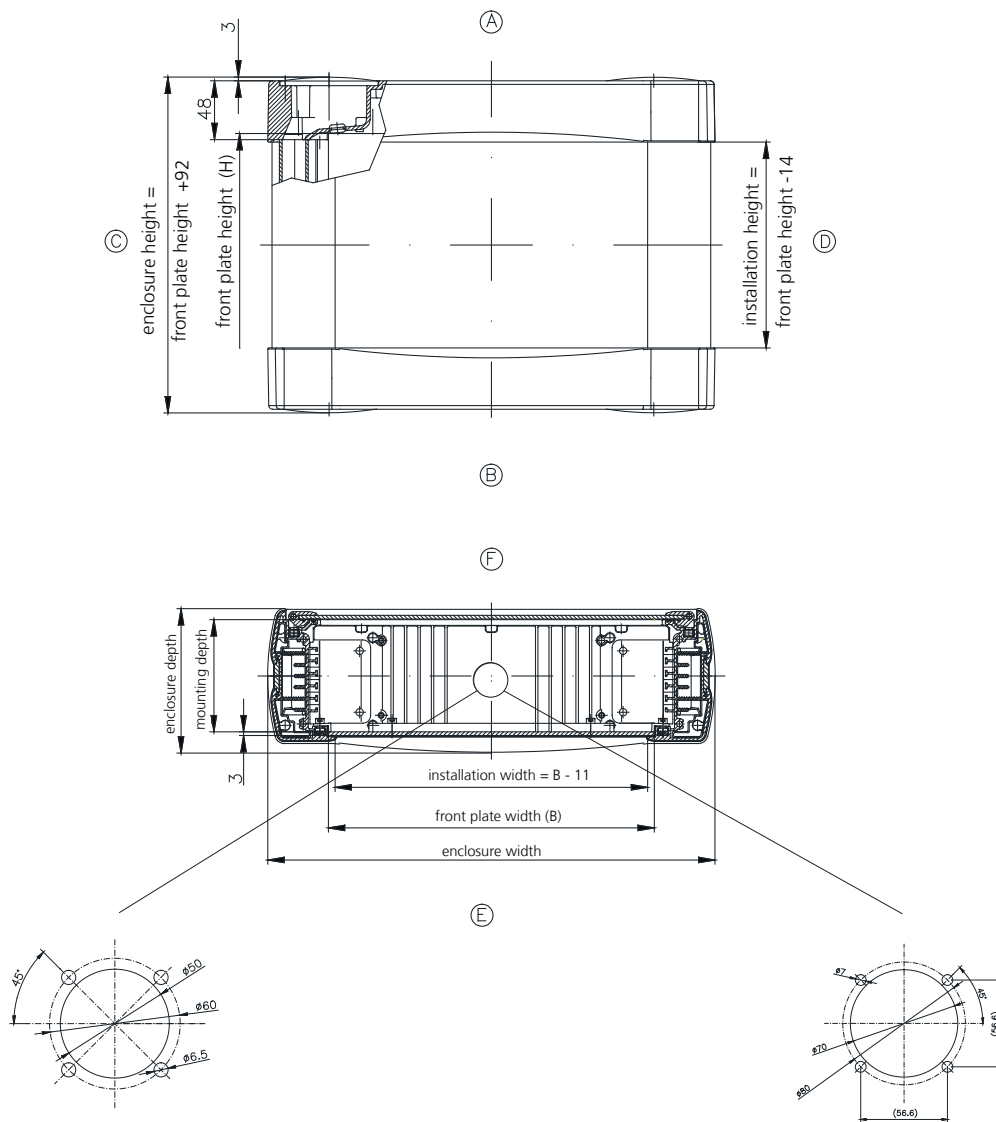
Further accessories see Commander system accessories



Technical details

| Type | Order No. | Front plate W x H (mm) | Installation W x H (mm) | Enclosure W x H (mm) | Mounting depth | Enclosure depth |
|-----------------|--------------------|---------------------------|----------------------------|-------------------------|----------------|--------------------|
| CT 110-350-S | 20.80 10 10 | 266 x 350 | 255 x 336 | 365 x 442 | 91 | 118 |
| CT 110-350-S-GT | 20.80 11 10 | 266 x 350 | 255 x 336 | 365 x 442 | 91 | 118 |
| CT 110-520-S | 20.80 10 20 | 266 x 520 | 255 x 506 | 365 x 612 | 91 | 118 |
| CT 110-520-S-GT | 20.80 11 20 | 266 x 520 | 255 x 506 | 365 x 612 | 91 | 118 |
| CT 110-SL-S | 20.80 10 99 | 266 x SL | 255 x SL | 365 x SL | 91 | 118 |
| CT 110-SL-S-GT | 20.80 11 99 | 266 x SL | 255 x SL | 365 x SL | 91 | 118 |
| CT 145-350-S | 20.80 40 10 | 351 x 350 | 340 x 336 | 453 x 442 | 127 | 153 |
| CT 145-350-S-GT | 20.80 42 10 | 351 x 350 | 340 x 336 | 453 x 442 | 127 | 153 |
| CT 145-520-S | 20.80 40 20 | 351 x 520 | 340 x 506 | 453 x 612 | 127 | 153 |
| CT 145-520-S-GT | 20.80 42 20 | 351 x 520 | 340 x 506 | 453 x 612 | 127 | 153 |
| CT 145-SL-S | 20.80 40 99 | 351 x SL | 340 x SL | 453 x SL | 127 | 153 |
| CT 145-SL-S-GT | 20.80 42 99 | 351 x SL | 340 x SL | 453 x SL | 127 | 153 |

SL = Special length



Drilling hole GT 48/2 and GTK electronic

Drilling hole GTN II

Company _____ Telephone _____
 Contact _____ Telefax _____
 Address _____ E-Mail _____
 Project _____ Quantity _____ Lot size _____

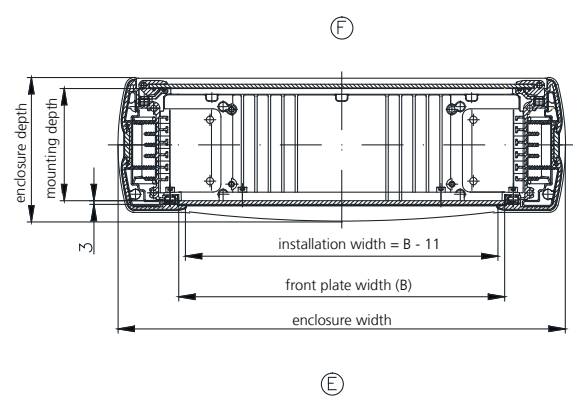
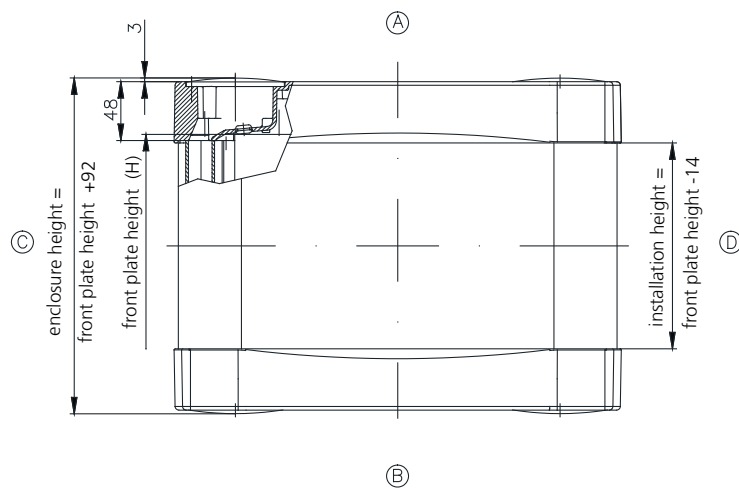
Dimensions operating enclosures

- ComTronic 110
 for front panel 266 x 350 mm (W x H) for front panel 266 x 520 mm (W x H)
 for front panel 266 x special length mm (W x H)

- ComTronic 145
 for front panel 351 x 350 mm (W x H) for front panel 351 x 520 mm (W x H)
 for front panel 351 x special length mm (W x H)

front panel dimension special length H (mm) _____ (high)

| | | |
|---------------------|-----|-----|
| | 110 | 145 |
| Mounting depth: | 91 | 127 |
| Enclosure depth: | 118 | 153 |
| Installation width: | 255 | 340 |



Front panel mounted: yes no

Modified acc. to drawing no.: _____

or specify manufacturer / control type _____

Accessory to inquiry / order

Company: _____

Rear wall

- With fast lock system (standard)
 - With turn bolt fastener
 - Square 6 mm (standard)
 - Screwed
 - Rear wall machining acc. drawing no. _____
- Hinged side _____ (standard side D)
 - Hinged side _____ (standard side D)
 - Triangular 6,5 mm
 - Slot 1,5 mm

Colour

- Standard: light grey, RAL 7035
- Special colour (please specify RAL colour single):
 Profile RAL _____ Lid RAL _____ Slot-in strip RAL _____ (standard: black)

Suspension system

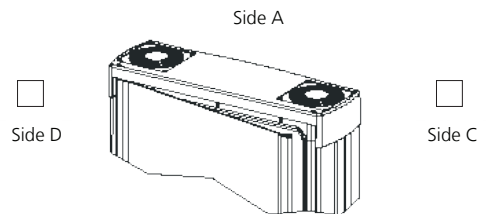
- without
 - GTK electronic or GT 48/2 Side _____ (standard side A by ComTronic 110)
 - GTS Side _____ (standard side A by ComTronic 110)
 - GTN II Side _____ (standard side A by ComTronic 110)
 - Moterm
 - other _____ Drawing no. _____ Side _____
- Total weight of mountings ca. _____ kg

Handle set

- Side C and D
- Special colour RAL _____ (standard: black)
- Special length _____ mm

Ventilator (1 pcs.)

- Standard 2 pcs.
- Side _____ (standard: side A)
 divergent by inset of only one ventilator



Cover elements (4 pcs.)

- (or hygienic areas) attention: none optimal cooling effect!

NoVoTronic adapter

- Side _____ (standard: side D)

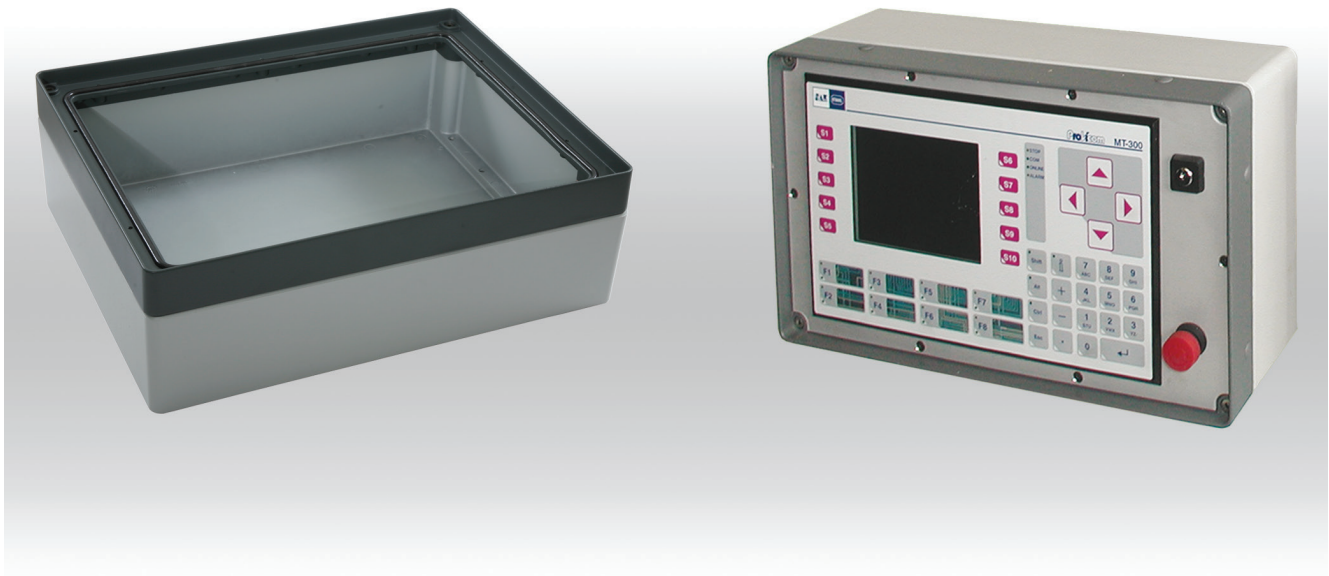
Wall holder-CT

- Side _____ (standard: Side C)

Other machining / special versions

acc. drawing no.: _____

Commander 1



- + Small control enclosure in aluminium diecast with protective bumperbars
- + Robust aluminium diecast enclosure body with front panel
- + Transparent cover and handle set (optional)
- + High protection class IP 65

Included in delivery





Enclosure body with front frame and fastening screws (2 or 4 pcs.).
Please order front panel separately

Technical data

| | |
|---------------------------|--|
| Material | DIN EN 1706 EN AC-AISI 12 (Fe) |
| Painting | Powder coating |
| Colour | Enclosure body: RAL 7038, agate grey Front frame: RAL 7043, traffic grey B Special colour on request |
| Ingress protection | IP 65 to EN 60529 with transparent cover IP 54 |



Product range

| Type | Dimensions H x W x D (mm) | Enclosure without front panel | Enclosure drilled for attachment of handle, without front panel | Weight (g) | 1 set single handle for side A + B  | 1 set single handle for side C + D  | Handling frame for side A + B  | Handling frame for side C + D  |
|-------|------------------------------|-------------------------------------|---|---------------|---|---|--|--|
| 13.05 | 230 x 100 x 128 | 13.05 00 00 | | 2170 | | | | |
| 13.07 | 260 x 160 x 108 | 13.07 00 00 | | 2450 | | | | |
| 13.08 | 360 x 160 x 108 | 13.08 00 00 | | 2730 | | | | |
| 13.09 | 560 x 160 x 108 | 13.09 00 00 | | 5390 | | | | |
| 13.10 | 230 x 200 x 128 | 13.10 00 00 | 13.10 10 00 | 3075 | 13.34 00 01 | 13.34 00 01 | | 13.34 10 01 |
| 13.11 | 230 x 200 x 198 | 13.11 00 00 | 13.11 10 00 | 4495 | 13.34 00 01 | 13.34 00 01 | | 13.34 10 01 |
| 13.12 | 230 x 330 x 128 | 13.12 00 00 | 13.12 10 00 | 4620 | 13.34 00 03 | 13.34 00 01 | 13.34 12 02 | 13.34 12 01 |
| 13.13 | 230 x 330 x 198 | 13.13 00 00 | 13.13 10 00 | 6150 | 13.34 00 03 | 13.34 00 01 | 13.34 12 02 | 13.34 12 01 |
| 13.14 | 230 x 400 x 128 | 13.14 00 00 | 13.14 10 00 | 4240 | 13.34 00 04 | 13.34 00 01 | 13.34 14 02 | 13.34 14 01 |
| 13.15 | 230 x 400 x 242 | 13.15 00 00 | 13.15 10 00 | 6840 | 13.34 00 04 | 13.34 00 01 | 13.34 14 02 | 13.34 14 01 |
| 13.17 | 230 x 280 x 130 | 13.17 00 00 | 13.17 10 00 | 4000 | 13.34 00 02 | 13.34 00 01 | | |
| 13.20 | 310 x 400 x 128 | 13.20 00 00 | 13.20 10 00 | 6100 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |
| 13.21 | 310 x 400 x 198 | 13.21 00 00 | 13.21 10 00 | 8000 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |
| 13.22 | 310 x 600 x 128 | 13.22 00 00 | 13.22 10 00 | 9720 | 13.34 00 05 | 13.34 00 02 | 13.34 22 02 | 13.34 22 01 |
| 13.23 | 310 x 600 x 198 | 13.23 00 00 | 13.23 10 00 | 10300 | 13.34 00 05 | 13.34 00 02 | 13.34 22 02 | 13.34 22 01 |
| 13.24 | 310 x 400 x 244 | 13.24 00 00 | 13.24 10 00 | 8700 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |
| 13.25 | 310 x 400 x 158 | 13.25 00 00 | 13.25 10 00 | 7085 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |

Connection to suspension system

| for type | GT 48/2 GTK electronic | GTS | GT 50/2 | GT 60/2 GTN II | GT 80/2 |
|----------|---------------------------|-----|---------|-------------------|---------|
| 13.05 | • | | | | |
| 13.07 | • | | | | |
| 13.08 | • | | | | |
| 13.09 | • | | | | |
| 13.10 | • | • | • | | |
| 13.11 | • | • | • | • | • |
| 13.12 | • | • | • | | |
| 13.13 | • | • | • | • | • |
| 13.14 | • | • | • | | |
| 13.15 | • | • | • | • | • |
| 13.17 | • | • | • | | |
| 13.20 | • | • | • | | |
| 13.21 | • | • | • | • | • |
| 13.22 | • | • | • | | |
| 13.23 | • | • | • | • | • |
| 13.24 | • | • | • | • | • |
| 13.25 | • | • | • | • | • |

Commander 1

Accessories

| Type | Front plate | Mounting plate | Transparent cover with knurled lock | DIN rail TS 35/7.5 | Silicone seal |
|-------|-------------|----------------|-------------------------------------|--------------------|---------------|
| 13.05 | 10.01 30 05 | 10.01 10 14 | | 10.06 14 29 | 10.05 10 15 |
| 13.07 | 10.01 30 07 | 10.01 10 11 | | 10.06 14 24 | 10.05 13 07 |
| 13.08 | 10.01 30 08 | 10.01 10 12 | | 10.06 14 25 | 10.05 13 08 |
| 13.09 | 10.01 30 09 | 10.01 10 13 | | 10.06 14 26 | 10.05 13 09 |
| 13.10 | 10.01 30 10 | 10.01 10 15 | 13.33 10 10 | 10.06 14 30 | 10.05 13 10 |
| 13.11 | 10.01 30 10 | 10.01 10 15 | 13.33 10 10 | 10.06 14 30 | 10.05 13 10 |
| 13.12 | 10.01 30 12 | 10.01 10 17 | 13.33 12 10 | 10.06 14 32 | 10.05 13 12 |
| 13.13 | 10.01 30 12 | 10.01 10 17 | 13.33 12 10 | 10.06 14 32 | 10.05 13 12 |
| 13.14 | 10.01 30 14 | 10.01 10 18 | 13.33 14 10 | 10.06 14 27 | 10.05 13 14 |
| 13.15 | 10.01 30 14 | 10.01 10 18 | 13.33 14 10 | 10.06 14 27 | 10.05 13 14 |
| 13.17 | 10.01 30 17 | 10.01 10 16 | | 10.06 14 31 | 10.05 13 17 |
| 13.20 | 10.01 30 20 | 10.01 10 20 | 13.33 20 10 | 10.06 14 27 | 10.05 13 20 |
| 13.21 | 10.01 30 20 | 10.01 10 20 | 13.33 20 10 | 10.06 14 27 | 10.05 13 20 |
| 13.22 | 10.01 30 22 | 10.01 10 21 | 13.33 22 10 | 10.06 14 28 | 10.05 13 22 |
| 13.23 | 10.01 30 22 | 10.01 10 21 | 13.33 22 10 | 10.06 14 28 | 10.05 13 22 |
| 13.24 | 10.01 30 20 | 10.01 10 20 | 13.33 20 10 | 10.06 14 27 | 10.05 13 20 |
| 13.25 | 10.01 30 20 | 10.01 10 20 | 13.33 20 10 | 10.06 14 27 | 10.05 13 20 |

Internal hinge



Swivel range 95°
set = 2 pcs

Order No.

10.02 20 01

External hinge

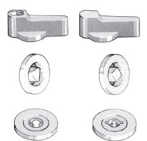


Swivel range 150°
set = 2 pcs

Order No.

10.02 70 43

Lock



Order No.

Execution

10.12 04 07

Square 7 mm

10.12 04 08

Square 8 mm

10.12 04 09

Triangular 7 mm

10.12 04 10

Triangular 8 mm

10.12 04 11

Daimler Benz

10.12 04 12

Double ward

10.12 04 13

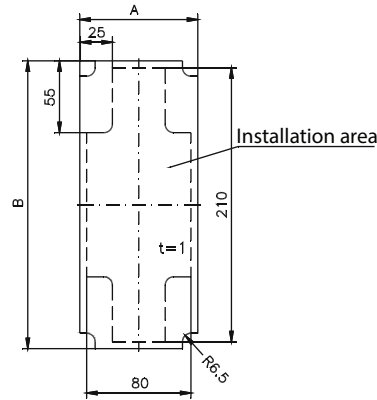
Knob with lock



Accessories

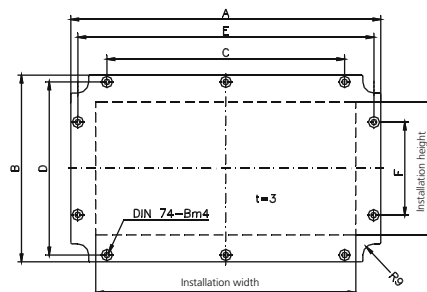
Front plate

| Type | Order No. | A | B | Installation width | Installation height |
|-------|--------------------|------|-------|--------------------|---------------------|
| 13.05 | 10.01 30 05 | 90,5 | 220,5 | 80 | 210 |



Front plate

| Type | Order No. | A | B | C | D | E | F | Installation width | Installation height |
|-------|--------------------|-------|-------|-----|-----|-----|-----|--------------------|---------------------|
| 13.07 | 10.01 30 07 | 251 | 151 | 205 | 140 | 240 | - | 220 | 120 |
| 13.08 | 10.01 30 08 | 351 | 151 | 305 | 140 | 340 | - | 320 | 120 |
| 13.10 | 10.01 30 10 | 192,5 | 223 | - | 210 | 179 | - | 154 | 184 |
| 13.11 | 10.01 30 10 | 192,5 | 223 | - | 210 | 179 | - | 154 | 184 |
| 13.12 | 10.01 30 12 | 320,5 | 220,5 | 140 | 207 | 307 | - | 284 | 184 |
| 13.13 | 10.01 30 12 | 320,5 | 220,5 | 140 | 207 | 307 | - | 284 | 184 |
| 13.14 | 10.01 30 14 | 389,5 | 219 | 140 | 207 | 377 | - | 354 | 184 |
| 13.15 | 10.01 30 14 | 389,5 | 219 | 140 | 207 | 377 | - | 354 | 184 |
| 13.17 | 10.01 30 17 | 272 | 222 | - | 208 | 258 | - | 234 | 184 |
| 13.20 | 10.01 30 20 | 390,5 | 300,5 | 300 | 287 | 377 | 150 | 354 | 264 |
| 13.21 | 10.01 30 20 | 390,5 | 300,5 | 300 | 287 | 377 | 150 | 354 | 264 |
| 13.24 | 10.01 30 20 | 390,5 | 300,5 | 300 | 287 | 377 | 150 | 354 | 264 |
| 13.25 | 10.01 30 20 | 390,5 | 300,5 | 300 | 287 | 377 | 150 | 354 | 264 |

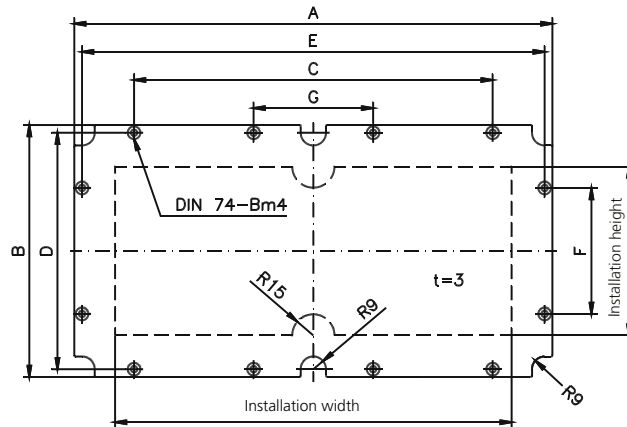


Commander 1

Accessories

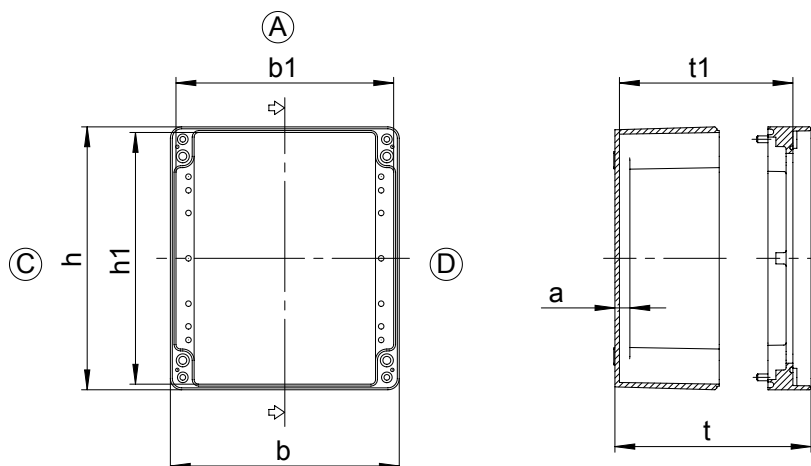
Front plate

| Type | Order No. | A | B | C | D | E | F | G | Installation width | Installation height |
|-------|--------------------|-------|-------|-----|-----|-----|-----|-----|--------------------|---------------------|
| 13.09 | 10.01 30 09 | 551 | 151 | 505 | 140 | 540 | - | 175 | 516 | 120 |
| 13.22 | 10.01 30 22 | 590,5 | 300,5 | 450 | 287 | 577 | 150 | 150 | 554 | 264 |
| 13.23 | 10.01 30 22 | 590,5 | 300,5 | 450 | 287 | 577 | 150 | 150 | 554 | 264 |



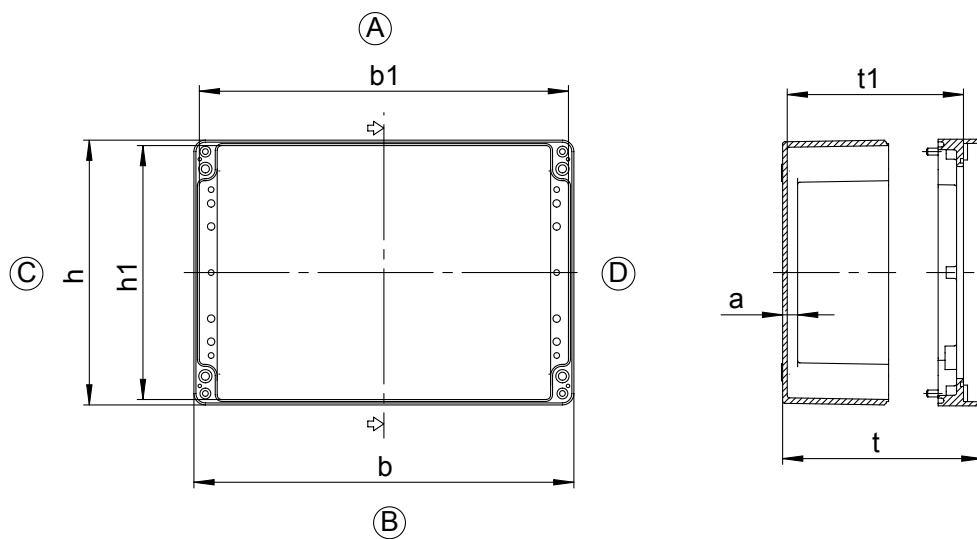
Technical details

| Order No. | b | h | t | b1 | h1 | t1 | a |
|--------------------|-----|-----|-----|-----|-----|-----|----|
| 13.05 00 00 | 100 | 230 | 129 | 88 | 218 | 101 | 14 |
| 13.10 00 00 | 202 | 232 | 129 | 189 | 219 | 108 | 13 |
| 13.11 00 00 | 202 | 232 | 198 | 190 | 220 | 176 | 14 |

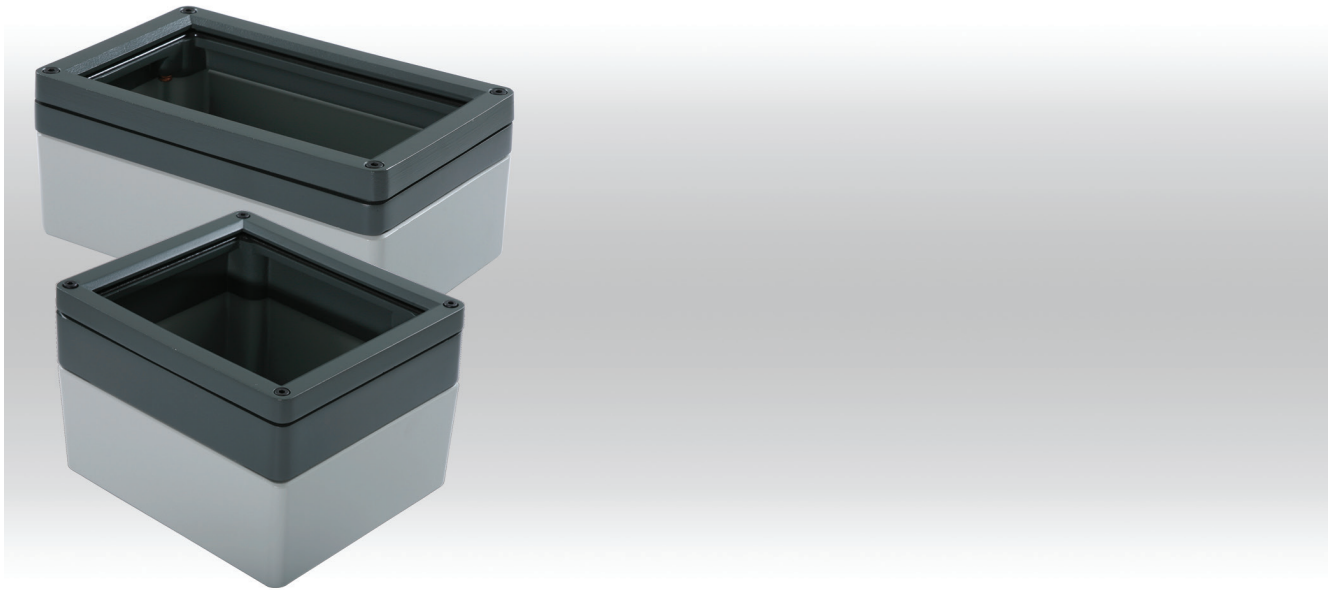


Technical details

| Order No. | b | h | t | b1 | h1 | t1 | a |
|-------------|-----|-----|-----|-------|-------|-------|----|
| 13.07 00 00 | 260 | 160 | 109 | 248,5 | 149 | 88 | 13 |
| 13.08 00 00 | 360 | 160 | 109 | 348,5 | 149 | 88 | 13 |
| 13.09 00 00 | 560 | 160 | 109 | 548,5 | 149 | 88 | 13 |
| 13.12 00 00 | 330 | 230 | 129 | 316,5 | 216,5 | 112 | 13 |
| 13.13 00 00 | 330 | 230 | 199 | 316,5 | 216,5 | 176 | 15 |
| 13.14 00 00 | 400 | 230 | 129 | 387 | 217 | 108 | 13 |
| 13.15 00 00 | 400 | 230 | 243 | 384,5 | 214,5 | 220,5 | 14 |
| 13.17 00 00 | 280 | 230 | 129 | 387 | 217 | 108 | 13 |
| 13.20 00 00 | 404 | 313 | 129 | 391 | 301 | 107,5 | 13 |
| 13.21 00 00 | 404 | 313 | 199 | 358,5 | 299 | 176 | 14 |
| 13.22 00 00 | 600 | 310 | 129 | 586 | 296 | 106 | 14 |
| 13.23 00 00 | 600 | 310 | 199 | 584 | 294 | 176 | 14 |
| 13.24 00 00 | 404 | 313 | 245 | 360,5 | 297,5 | 222 | 14 |
| 13.25 00 00 | 403 | 312 | 159 | 391 | 296,5 | 136 | 14 |



Commander 1F



- + Small control enclosure in aluminium with front frame for front panels and keypads
- + Robust aluminium diecast enclosure body
- + Handle set (optional)
- + High protection class IP 65

Included in delivery





Enclosure body with two-part front frame, enclosure and fastening screws (2 or 4 pcs.).
Please order front panel separately

Technical data

| | |
|---------------------------|---|
| Material | DIN EN 1706 EN AC-AISI 12 (Fe) |
| Painting | Powder coating |
| Colour | Enclosure body: RAL 7038, agate grey Front frame: RAL 7043, traffic grey B Special colours on request |
| Ingress protection | IP 65 to EN 60529 |



Product range

| Type | Dimensions H x W x D (mm) | Enclosure without front panel | Enclosure drilled for attachment of handle, without front panel | Weight (g) | 1 set single handle for side A + B  | 1 set single handle for side C + D  | Handling frame for side A + B  | Handling frame for side A + B  |
|--------------|------------------------------|-------------------------------------|--|---------------|---|---|--|--|
| 13.07 | 260 x 160 x 108 | 13.07 05 00 | | 3000 | | | | |
| 13.08 | 360 x 160 x 108 | 13.08 05 00 | | 3581 | | | | |
| 13.10 | 230 x 200 x 128 | 13.10 05 00 | 13.10 15 00 | 3040 | 13.34 00 01 | 13.34 00 01 | | 13.34 10 01 |
| 13.10 | 230 x 200 x 153 | 13.10 05 10 | 13.10 15 10 | 3610 | 13.34 00 01 | 13.34 00 01 | | 13.34 10 01 |
| 13.11 | 230 x 200 x 198 | 13.11 05 00 | 13.11 15 00 | 4470 | 13.34 00 01 | 13.34 00 01 | | 13.34 10 01 |
| 13.12 | 230 x 330 x 128 | 13.12 05 00 | 13.12 15 00 | 3965 | 13.34 00 03 | 13.34 00 01 | 13.34 12 02 | 13.34 12 01 |
| 13.12 | 230 x 330 x 153 | 13.12 05 10 | 13.12 15 10 | 4685 | 13.34 00 03 | 13.34 00 01 | 13.34 12 02 | 13.34 12 01 |
| 13.13 | 230 x 330 x 198 | 13.13 05 00 | 13.13 15 00 | 7500 | 13.34 00 03 | 13.34 00 01 | 13.34 12 02 | 13.34 12 01 |
| 13.14 | 230 x 400 x 128 | 13.14 05 00 | 13.14 15 00 | 4580 | 13.34 00 04 | 13.34 00 01 | 13.34 14 02 | 13.34 14 01 |
| 13.15 | 230 x 400 x 242 | 13.15 05 00 | 13.15 15 00 | 6200 | 13.34 00 04 | 13.34 00 01 | 13.34 14 02 | 13.34 14 01 |
| 13.17 | 230 x 280 x 130 | 13.17 05 00 | 13.17 15 00 | 3370 | 13.34 00 02 | 13.34 00 01 | | |
| 13.20 | 310 x 400 x 128 | 13.20 05 00 | 13.20 15 00 | 6000 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |
| 13.21 | 310 x 400 x 198 | 13.21 05 00 | 13.21 15 00 | 7500 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |
| 13.25 | 310 x 400 x 158 | 13.25 05 00 | 13.25 15 00 | 7085 | 13.34 00 04 | 13.34 00 02 | 13.34 20 02 | 13.34 20 01 |

Connection to suspension system

| for type | GTK electronic GT 48/2 | GTS | GT 50/2 | GT 50/2 | GT 60/2 GTN II | GT 80/2 |
|--------------------|---------------------------|-----|---------|---------|-------------------|---------|
| 13.07 05 00 | • | • | | | | |
| 13.08 05 00 | • | • | | | | |
| 13.10 05 00 | • | • | • | • | | |
| 13.10 05 10 | • | • | • | • | | |
| 13.11 05 00 | • | • | • | • | • | • |
| 13.12 05 00 | • | • | • | • | | |
| 13.12 05 10 | • | • | • | • | | |
| 13.13 05 00 | • | • | • | • | • | • |
| 13.14 05 00 | • | • | • | • | | |
| 13.15 05 00 | • | • | • | • | • | • |
| 13.17 05 00 | • | • | • | • | | |
| 13.20 05 00 | • | • | • | • | | |
| 13.21 05 00 | • | • | • | • | • | • |
| 13.25 05 00 | • | • | • | • | • | • |

Commander 1F

Accessories

| Type | Front plate | Mounting plate | DIN rail TS 35/7.5 | Silicone seal |
|-------|--------------------|--------------------|-----------------------|--------------------|
| 13.07 | 10.01 32 07 | 10.01 10 11 | 10.06 14 24 | 10.05 13 07 |
| 13.08 | 10.01 32 08 | 10.01 10 12 | 10.06 14 25 | 10.05 13 08 |
| 13.10 | 10.01 32 10 | 10.01 10 15 | 10.06 14 30 | 10.05 13 10 |
| 13.11 | 10.01 32 10 | 10.01 10 15 | 10.06 14 30 | 10.05 13 10 |
| 13.12 | 10.01 32 12 | 10.01 10 17 | 10.06 14 32 | 10.05 13 12 |
| 13.13 | 10.01 32 12 | 10.01 10 17 | 10.06 14 32 | 10.05 13 12 |
| 13.14 | 10.01 32 14 | 10.01 10 18 | 10.06 14 27 | 10.05 13 14 |
| 13.15 | 10.01 32 14 | 10.01 10 18 | 10.06 14 27 | 10.05 13 14 |
| 13.17 | 10.01 32 17 | 10.01 10 16 | 10.06 14 31 | 10.05 13 17 |
| 13.20 | 10.01 32 20 | 10.01 10 20 | 10.06 14 27 | 10.05 13 20 |
| 13.21 | 10.01 32 20 | 10.01 10 20 | 10.06 14 27 | 10.05 13 20 |
| 13.25 | 10.01 32 20 | 10.01 10 20 | 10.06 14 27 | 10.05 13 20 |

Internal hinge



Swivel range 95°
set = 2 pcs

Order No.

10.02 20 01

Execution

only for type 13.07 to 13.15

External hinge



Swivel range 150°
set = 2 pcs

Order No.

10.02 70 43

Lock



Order No.

10.12 04 07

Execution

Square 7 mm

10.12 04 08

Square 8 mm

10.12 04 09

Triangular 7 mm

10.12 04 10

Triangular 8 mm

10.12 04 11

Daimler Benz

10.12 04 12

Double ward

10.12 04 13

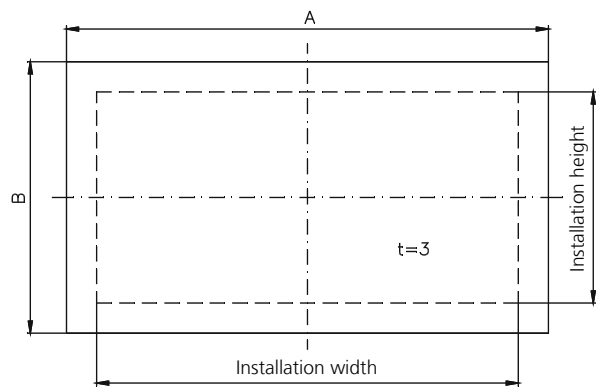
Knob with lock



Accessories

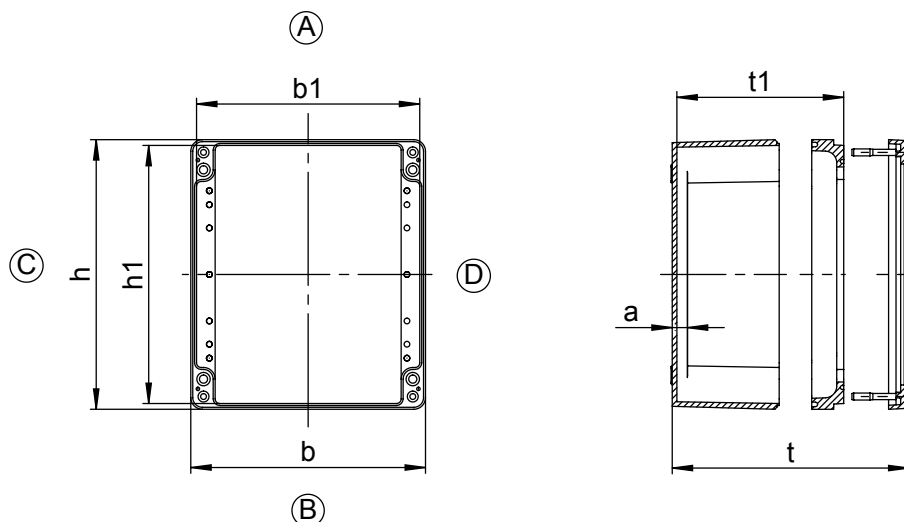
Front plate

| Type | Order No. | A | B | Installation width | Installation height |
|--------|--------------------|-----|-----|--------------------|---------------------|
| 13.07F | 10.01 32 07 | 230 | 130 | 215 | 115 |
| 13.08F | 10.01 32 08 | 330 | 130 | 315 | 115 |
| 13.10F | 10.01 32 10 | 170 | 200 | 155 | 185 |
| 13.11F | 10.01 32 10 | 170 | 200 | 155 | 185 |
| 13.12F | 10.01 32 12 | 300 | 200 | 285 | 185 |
| 13.13F | 10.01 32 12 | 300 | 200 | 285 | 185 |
| 13.14F | 10.01 32 14 | 370 | 200 | 355 | 185 |
| 13.15F | 10.01 32 14 | 370 | 200 | 355 | 185 |
| 13.17F | 10.01 32 17 | 251 | 201 | 235 | 185 |
| 13.20F | 10.01 32 20 | 375 | 284 | 359 | 268 |
| 13.21F | 10.01 32 20 | 375 | 284 | 359 | 268 |
| 13.25F | 10.01 32 20 | 375 | 284 | 359 | 268 |



Technical details

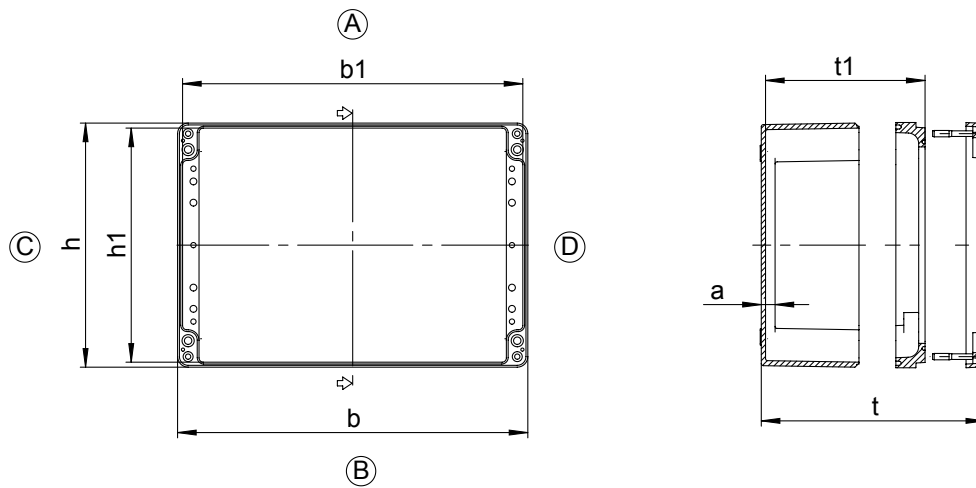
| Order No. | b | h | t | b1 | h1 | t1 | a |
|--------------------|-----|-----|-------|-----|-----|-------|----|
| 13.10 05 00 | 202 | 232 | 129,5 | 189 | 219 | 113,5 | 13 |
| 13.10 05 10 | 202 | 232 | 153 | 189 | 219 | 137 | 13 |
| 13.11 05 00 | 202 | 232 | 198,5 | 190 | 220 | 181,5 | 14 |



Commander 1F

Technical details

| Order No. | b | h | t | b1 | h1 | t1 | a |
|--------------------|-----|-----|-------|-------|-------|-------|----|
| 13.07 05 00 | 260 | 160 | 109,5 | 248,5 | 149 | 93,5 | 13 |
| 13.08 05 00 | 360 | 160 | 109,5 | 348,5 | 149 | 93,5 | 13 |
| 13.12 05 00 | 330 | 230 | 129,5 | 320,5 | 220,5 | 113,5 | 13 |
| 13.12 05 10 | 330 | 230 | 153 | 320,5 | 220,5 | 137 | 13 |
| 13.13 05 00 | 330 | 230 | 199,5 | 320,5 | 220,5 | 181,5 | 15 |
| 13.14 05 00 | 400 | 230 | 129,5 | 384,5 | 214,5 | 113,5 | 13 |
| 13.15 05 00 | 400 | 230 | 243,5 | 384,5 | 214,5 | 226 | 14 |
| 13.17 05 00 | 280 | 230 | 129,5 | 268 | 218 | 113,5 | 13 |
| 13.20 05 00 | 404 | 313 | 129,5 | 390 | 299 | 113 | 13 |
| 13.21 05 00 | 404 | 313 | 199,5 | 390 | 299 | 181,5 | 14 |
| 13.25 05 00 | 403 | 312 | 159,5 | 388,5 | 296,5 | 141,5 | 14 |





- + Stainless steel control enclosure based on switch gear cabinet KSS
- + Including reinforcement plate and drill hole for ROSE GTH suspension system
- + Optional individual sizes and Executions from 25 off

Included in delivery

Enclosure system including amplifier plate and GTH coupling hole with door, double ward lock.

Technical data

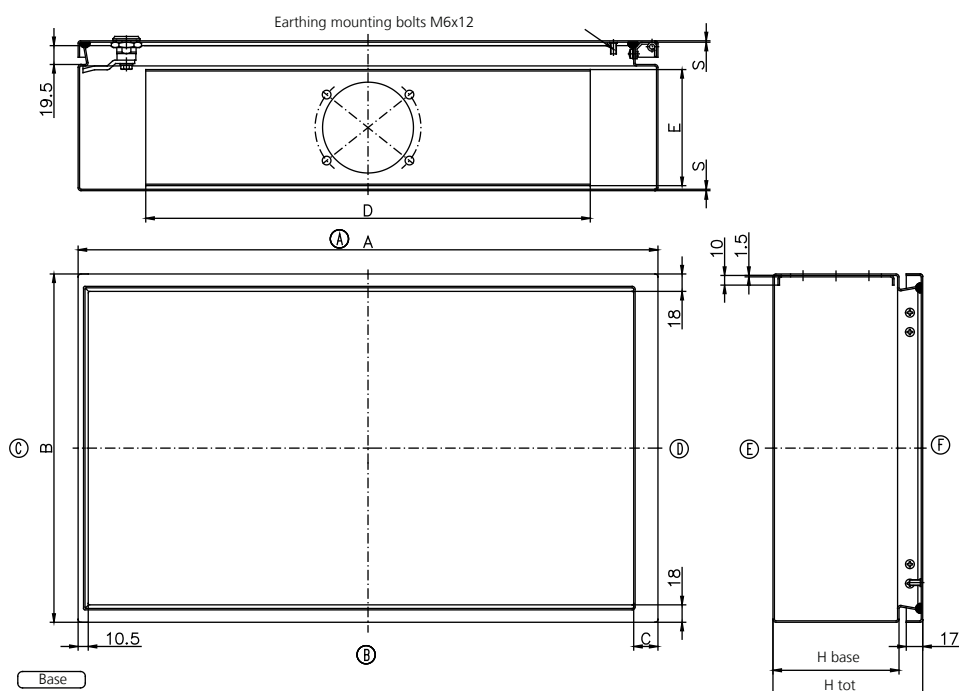
| | |
|---------------------------|---|
| Material | Stainless steel 1.25 mm or 1.5 mm; 1.4301 / 304 |
| Surface | grinded, grain 240 |
| Seal | VMQ (silicone) EMC on request |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -40 °C to +80 °C |

Commander KSSC

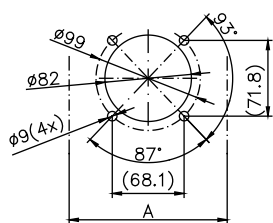
Product range

| Order No. | Weight (g) | Dimensions (mm) | | | | | | | | Drillings for suspension system (side A) |
|--------------------|------------|-----------------------------------|-----|------|-----|-----|------|----------------|------------------|--|
| | | A | B | C | D | E | S | H _U | H _{Ges} | |
| 37.02 23 15 | 3300 | 200 | 300 | 24,6 | 160 | 100 | 1.25 | 130,7 | 155 | GTH 48 (Bild 1) |
| 37.02 34 21 | 6120 | 300 | 380 | 24,6 | 260 | 175 | 1.25 | 185,7 | 210 | GTH 48 (Bild 1) |
| 37.02 43 15 | 5510 | 400 | 300 | 24,6 | 360 | 100 | 1.25 | 130,7 | 155 | GTH 48 (Bild 1) |
| 37.02 46 21 | 12000 | 380 | 600 | 25,1 | 340 | 175 | 1.5 | 185,7 | 210 | GTH 60 (Bild 2) |
| 37.02 55 21 | 11000 | 500 | 500 | 24,6 | 460 | 175 | 1.25 | 185,7 | 210 | GTH 60 (Bild 2) |
| 37.02 64 15 | 11000 | 600 | 400 | 25,1 | 460 | 120 | 1.5 | 130,7 | 155 | GTH 60 (Bild 2) |
| 37.02 68 21 | 20000 | 600 | 760 | 25,1 | 560 | 175 | 1.5 | 185,7 | 210 | GTH 60 (Bild 2) |
| 37.02 99 00 | | special size (acc. specification) | | | | | | | | |

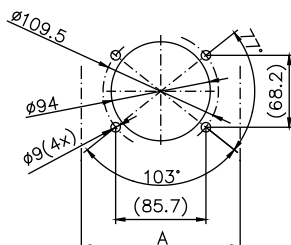
Cutout of size, state by order
Special size: from 25 pcs/order

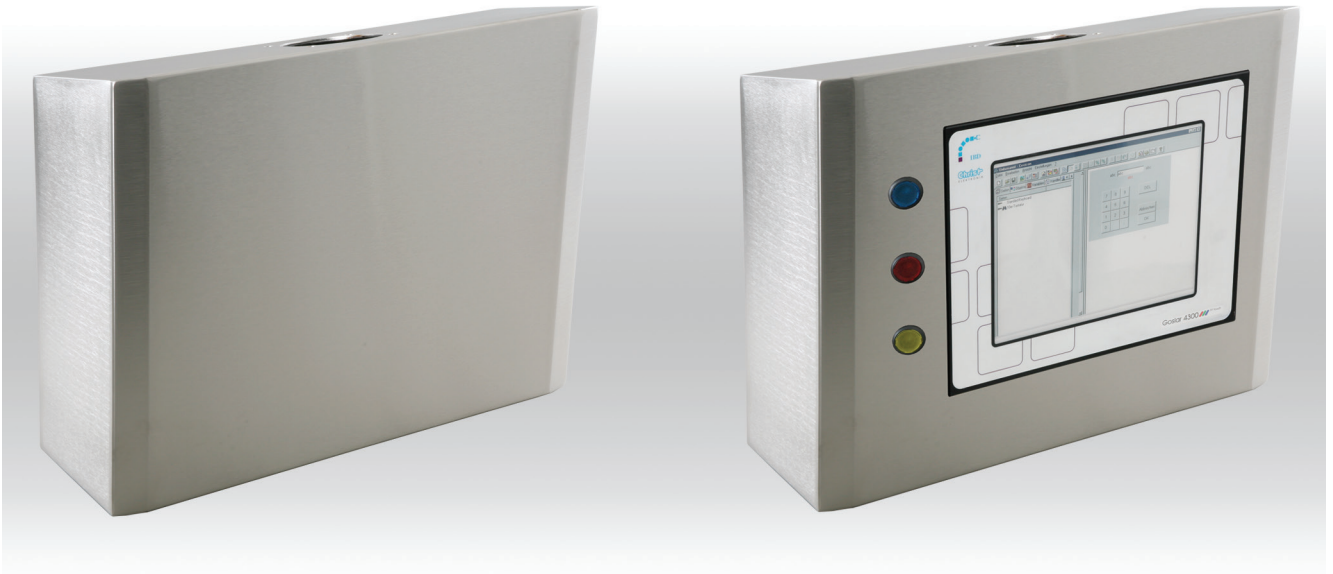


Picture 1:
Coupling drilling hole (GTH 48)



Picture 2:
Coupling drilling hole (GTH 60)





- + Stainless steel Commander with screwed rear wall
- + Sloped top acc. to hygienic design regulations
- + High material quality

Included in delivery

Enclosure with screwed rear wall, silicone seal - depending on Execution with closed or individual manufactured front, internal fixing and coupling hole for suspension system GTH 48

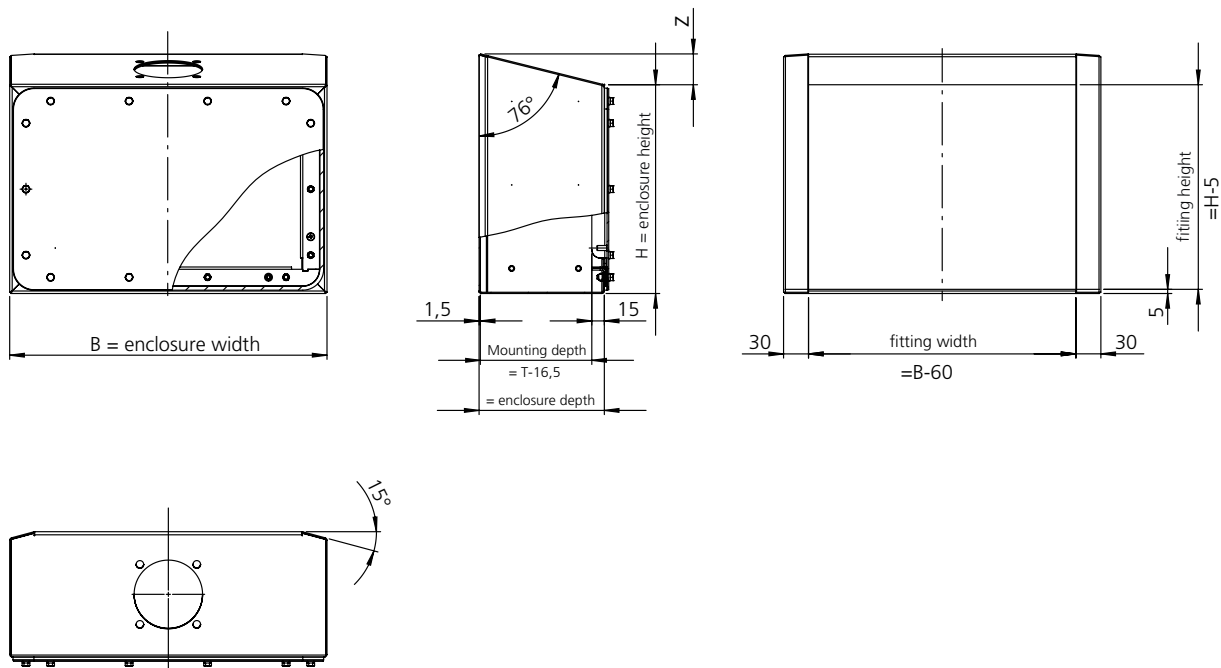
Technical data

| | |
|---------------------------|-----------------------------|
| Material | Stainless steel 1.4404/316L |
| Surface | grinded, grain 240 |
| Seal | Silicone |
| Ingress protection | IP 66 / IP 69K to EN 60529 |
| Temperature range | -40 °C to +80 °C |

Commander 410

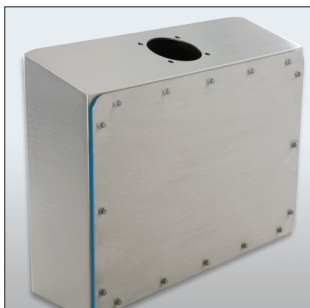
Product range

| Order No. | Dimensions (mm) W x H x D | Z | Fitting width | Fitting height | Drillings for suspension system (Side A) | Weight (g) |
|-------------|------------------------------|----|------------------|-------------------|---|------------|
| 56.10 02 01 | 380 x 250 x 150 | 37 | 320 | 245 | GTH 48 | 6830 |
| 56.10 02 02 | 380 x 250 x 220 | 55 | 320 | 245 | GTH 48 | 8010 |
| 56.10 02 03 | 500 x 350 x 150 | 37 | 440 | 345 | GTH 48 | 10000 |
| 56.10 02 04 | 500 x 350 x 220 | 55 | 440 | 345 | GTH 48 | 12000 |
| 56.10 02 05 | 500 x 450 x 150 | 37 | 440 | 445 | GTH 48 | 12000 |
| 56.10 02 06 | 500 x 450 x 220 | 55 | 440 | 445 | GTH 48 | 14000 |



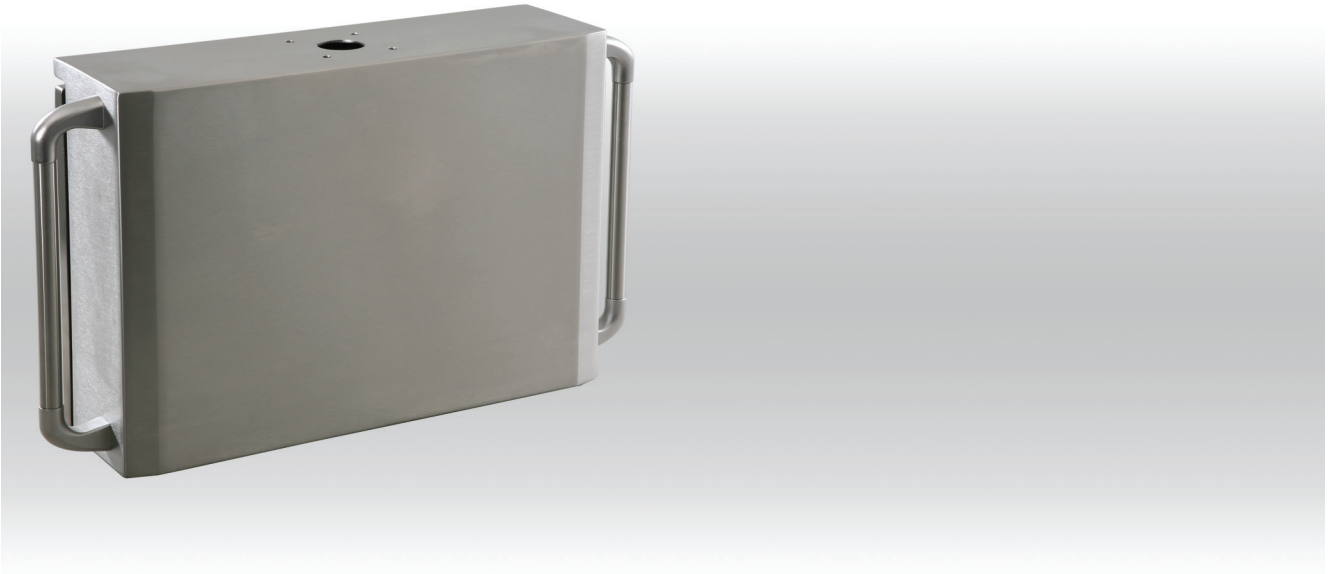
Accessories

Mounting angle set



| Order No. | Execution |
|-------------|------------------------------------|
| 56.20 99 01 | for internal fitting of components |





- + Stainless steel Commander with door for industrial applications
- + High material quality
- + Handle set optional

Included in delivery

Enclosure with door, rect angle, silicone seal - depending on Execution with closed or individual manufactured front, internal fixing and coupling hole for suspension system GTH 48

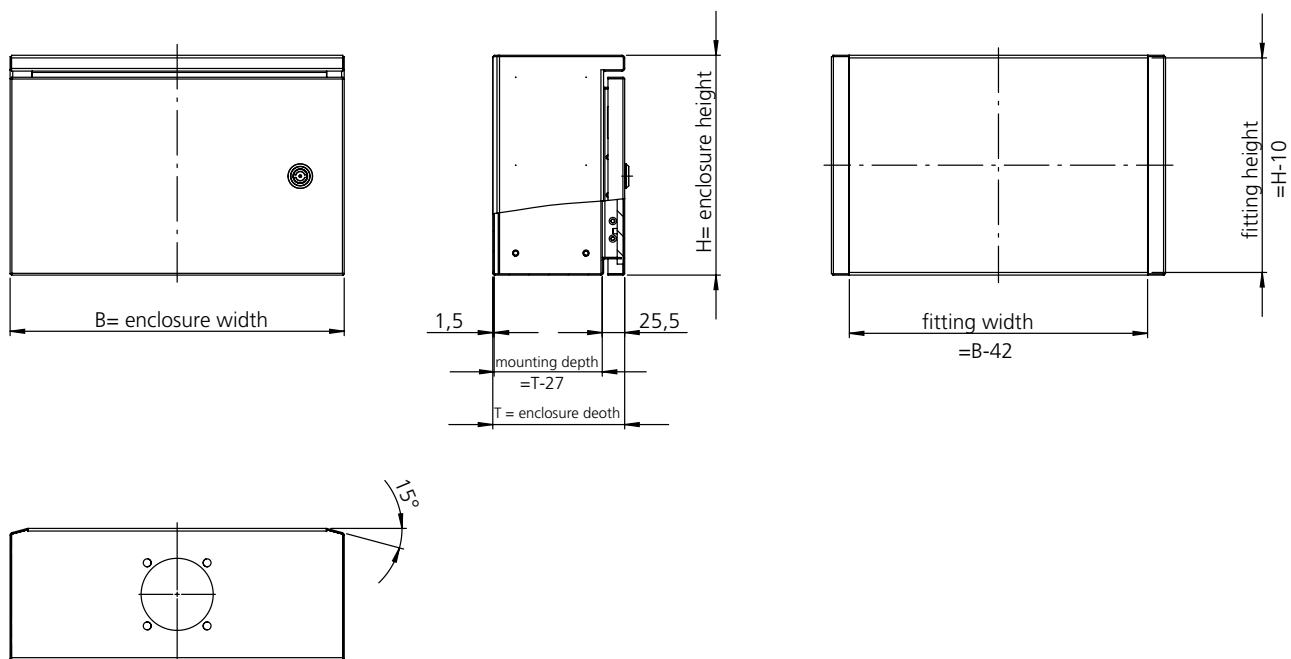
Technical data

| | |
|---------------------------|--|
| Material | Stainless steel 1.4301/304 other materials on request |
| Surface | grinded, grain 240 |
| Seal | Silicone |
| Ingress protection | IP 65 to EN 60529 |
| Temperature range | -40 °C to +80 °C |

Commander 420

Product range

| Order No. | Dimensions (mm) W x H x D | Fitting width | Fitting height | Drillings for suspension system (Side A) | Weight (g) |
|--------------------|------------------------------|------------------|-------------------|---|------------|
| 56.20 01 01 | 380 x 250 x 150 | 338 | 240 | GTH 48 | 5790 |
| 56.20 01 02 | 380 x 250 x 220 | 338 | 240 | GTH 48 | 6660 |
| 56.20 01 03 | 500 x 350 x 150 | 458 | 340 | GTH 48 | 8470 |
| 56.20 01 04 | 500 x 350 x 220 | 458 | 340 | GTH 48 | 9850 |
| 56.20 01 05 | 500 x 450 x 150 | 458 | 440 | GTH 48 | 10000 |
| 56.20 01 06 | 500 x 450 x 220 | 458 | 440 | GTH 48 | 12000 |



Accessories

Mounting bracket set

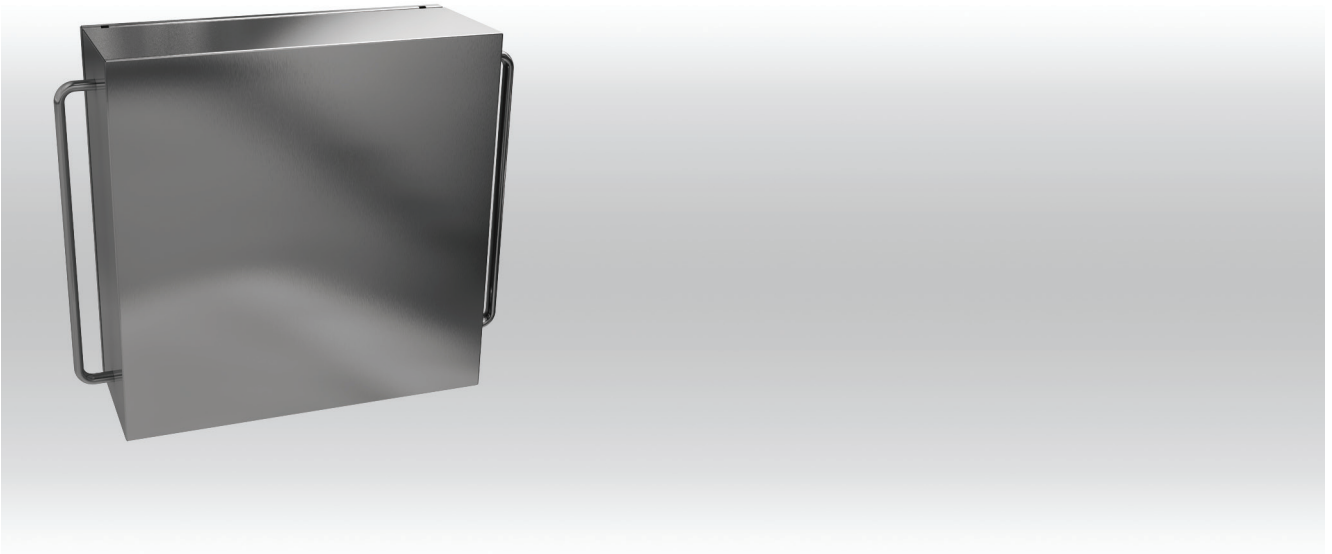
| Order No. | Execution |
|--------------------|------------------------------------|
| 56.20 99 01 | for internal fitting of components |

Handle set



| Order No. | Execution |
|--------------------|--|
| 56.20 01 93 | Handle set ECO for Commander 420, L = 220 mm |
| 56.20 01 94 | Handle set ECO for Commander 420, L = 320 mm |
| 56.20 01 95 | Handle set ECO for Commander 420, L = 420 mm |





- + Control enclosure in stainless steel 1.4301 (304)
- + Different handle design versions
- + High protection class IP 66
- + Integrated grounding lugs
- + Customized laser processing possible
- + Optional further locking systems made of different materials available (e.g. plastic or zinc die-cast)

Included in delivery

Enclosure including reinforcing plate, couplings hole and handles.

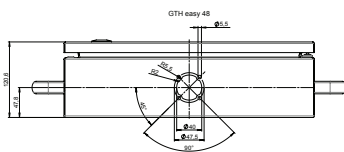
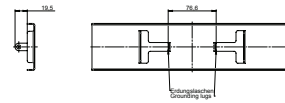
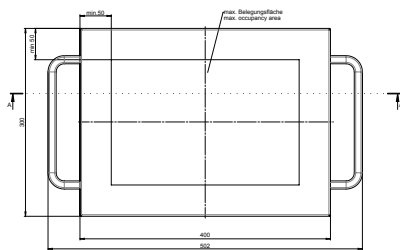
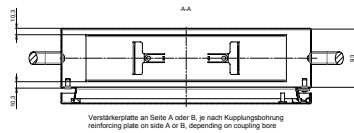
Technical data

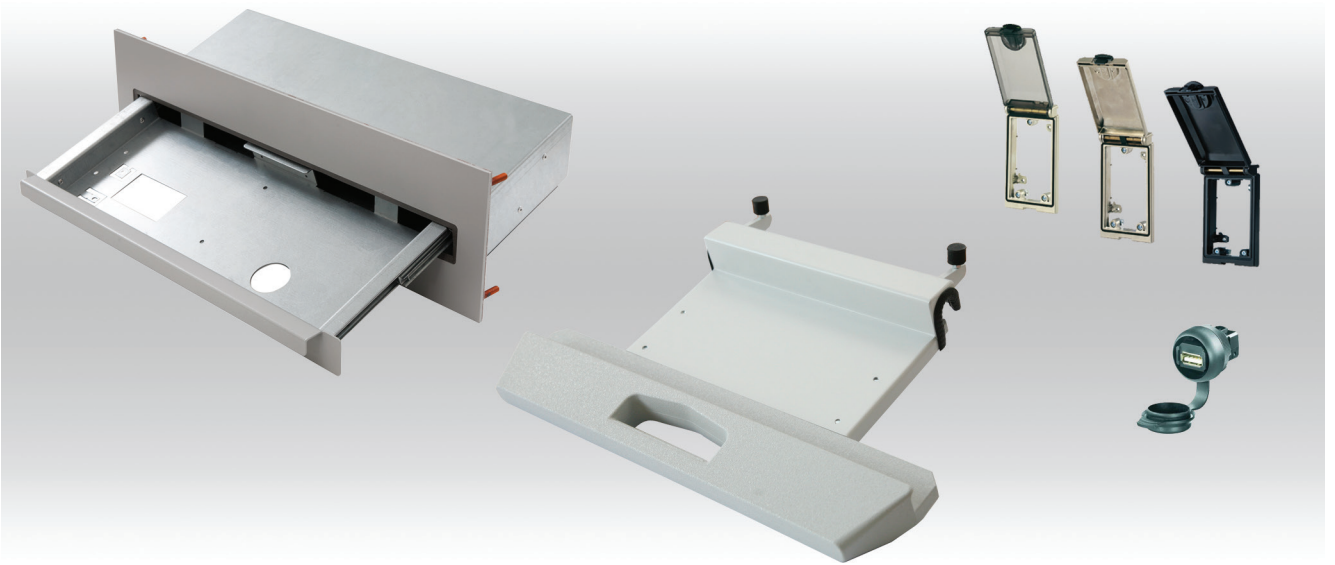
| | |
|---------------------------|----------------------------|
| Material | Stainless steel 1.4301/304 |
| Surface | grinded, grain 320 |
| Seal | Silicone |
| Ingress protection | IP 66 |
| Temperature range | -20 °C to +80 °C |

Commander 450

Product range

| Order No. | Dimensions (mm) W x H x D | Fitting (mm) W x H | Variation | Weight (kg) |
|-------------|------------------------------|-----------------------|----------------------------------|-------------|
| 56.45 01 01 | 400 x 300 x 120 | 300 x 200 | with two edge handles (side C/D) | 4.21 |
| 56.45 01 02 | 400 x 300 x 120 | 300 x 200 | with two bow handles (side C/D) | 5.68 |
| 56.45 01 03 | 400 x 300 x 120 | 300 x 200 | with one bow handle (side B) | 5.40 |
| 56.45 02 01 | 400 x 300 x 160 | 300 x 200 | with two edge handles (side C/D) | 4.90 |
| 56.45 02 02 | 400 x 300 x 160 | 300 x 200 | with two bow handles (side C/D) | 6.37 |
| 56.45 02 03 | 400 x 300 x 160 | 300 x 200 | with one bow handle (side B) | 6.09 |
| 56.45 03 01 | 400 x 400 x 160 | 300 x 300 | with two edge handles (side C/D) | 7.13 |
| 56.45 03 02 | 400 x 400 x 160 | 300 x 300 | with two bow handles (side C/D) | 7.84 |
| 56.45 03 03 | 400 x 400 x 160 | 300 x 300 | with one bow handle (side B) | 7.24 |
| 56.45 04 01 | 500 x 300 x 200 | 400 x 200 | with two edge handles (side C/D) | 7.49 |
| 56.45 04 02 | 500 x 300 x 200 | 400 x 200 | with two bow handles (side C/D) | 8.38 |
| 56.45 04 03 | 500 x 300 x 200 | 400 x 200 | with one bow handle (side B) | 8.26 |
| 56.45 05 01 | 500 x 500 x 200 | 400 x 400 | with two edge handles (side C/D) | 9.00 |
| 56.45 05 02 | 500 x 500 x 200 | 400 x 400 | with two bow handles (side C/D) | 12.00 |
| 56.45 05 03 | 500 x 500 x 200 | 400 x 400 | with one bow handle (side B) | 11.00 |





- + Keyboard drawer and keyboard tray
 - + Keyboard holder
 - + Single and multi interface flaps and flap inserts
-
-

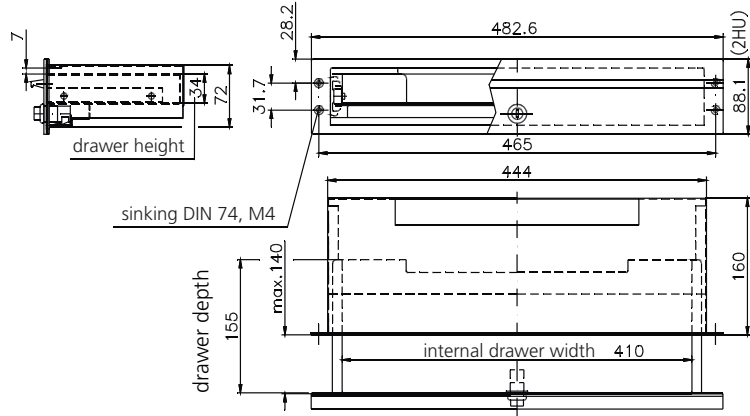
Commander system accessories

Keyboard drawer



Installation into command systems:
 SL 2000, Profile 3
 SL 3000, Profile 3 and 4
 SL 4000 Profile 3
 optional with keyboard

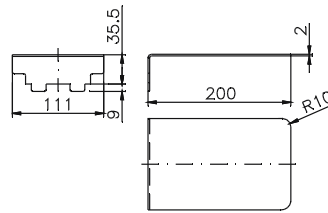
| Order No. | Execution |
|--------------------|---|
| 10.99 20 01 | Drawer for keyboards, IP 40 to front side |



Mousepad rack



| Order No. | Execution |
|--------------------|---------------------------------|
| 10.99 20 02 | for keyboard drawer 10.99 20 01 |

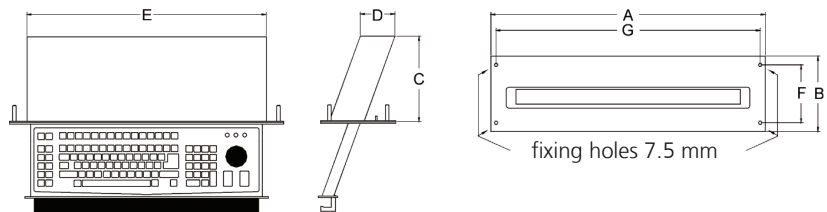


Keyboard drawer RTS3 with 20° inclination



Built-in drawer for keyboards,
 IP 65 for the front side
 Dimensions: 483 x 132.5 x 150 mm
 for keyboards with maximum dimensions 340 x 170 x 20 mm
 Drawer with 20° slope with magnetic latch
 for installing from the front with front panel
 (RAL 9006, white aluminium) or for installing
 from the inside of the enclosure
 Related keyboard on request

| Order No. | Execution |
|--------------------|---|
| 10.99 20 03 | Keyboard drawer RTS3-F (inclination 20° with front plate) |
| 10.99 20 04 | Keyboard drawer RTS3 (inclination 20° with front plate) |



Dimensions (mm)

| A | B | C | D | E | F | G |
|-----|-------|-----|----|-----|-------|-----|
| 483 | 132,5 | 150 | 61 | 421 | 101,5 | 465 |



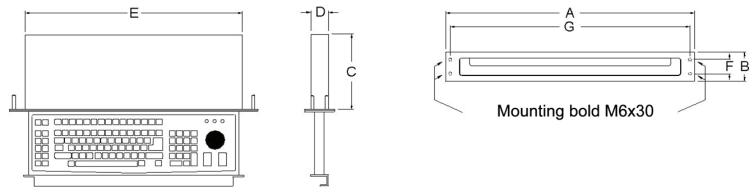
Keyboard drawer RTS 1 (1 HE)



Built-in drawer for keyboards, IP 65 for the front side
 Dimensions: 483 x 44 x 160 mm
 for keyboards with maximum dimensions 370 x 140 x 20 mm
 Drawer without slope with magnetic latch for installing from the front with front panel (RAL 9006, white aluminium)

Suitable keyboard Cherry G84-4400LUBDE

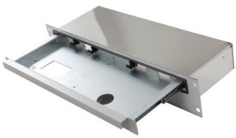
| Order No. | Execution |
|-------------|------------------|
| 10.99 20 11 | with front plate |



Dimensions (mm)

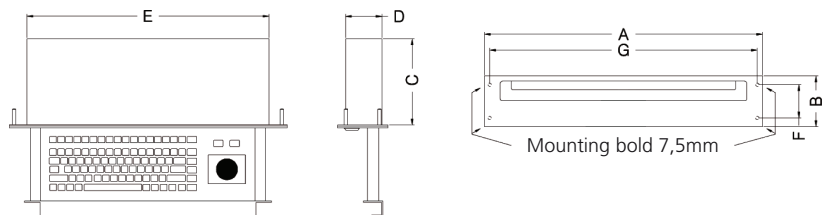
| A | B | C | D | E | F | G |
|-----|----|-----|----|-----|----|-----|
| 483 | 44 | 160 | 35 | 421 | 25 | 465 |

Keyboard drawer RTS 2 (2 HE)



Built-in drawer for keyboards, IP 65 for the front side
 Dimensions: 483 x 88 x 150 mm
 for keyboards with maximum dimensions 370 x 140 x 20 mm
 Drawer without slope with magnetic latch for installing from the front with front panel (RAL 9006, white aluminium) or for installing from the inside of the enclosure
 Related keyboard on request

| Order No. | Execution |
|-------------|------------------|
| 10.99 20 13 | with front plate |



Dimensions (mm)

| A | B | C | D | E | F | G |
|-----|----|-----|----|-----|----|-----|
| 483 | 88 | 150 | 64 | 421 | 58 | 465 |

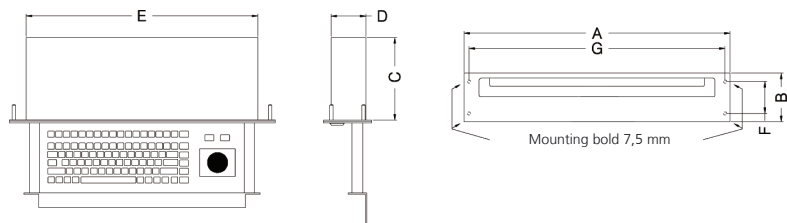
Keyboard drawer RTS4



Built-in drawer for keyboards, IP 65 for the front side
 Dimensions: 560 x 123 x 203 mm
 for keyboards with maximum dimensions 465 x 170 x 25 mm
 Drawer with magnetic latch
 Mouse pad tray can be extended to the right or left
 for installing from the front with front panel (RAL 7035, light grey)
 incl. mouse Cherry M5450 and integrated USB port

suitable keyboard Cherry G-85-23100 DE-2 (German) or Cherry G-85-23100 EU (English) on request

| Order No. | Execution |
|-------------|------------------|
| 45.80 10 00 | with front plate |



Dimensions (mm)

| A | B | C | D | E | F | G |
|-----|-----|-----|----|-----|-----|-----|
| 560 | 123 | 203 | 86 | 512 | 103 | 543 |

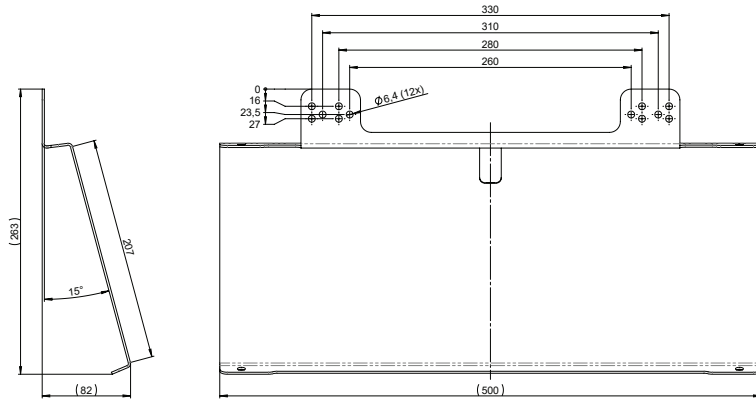
Commander system accessories

Keyboard tray, sheet steel, inclination 15°



Order No. Execution

10.99 20 06 For mounting between suspension system GTN II and GTS onto commander from bottom side (side B)

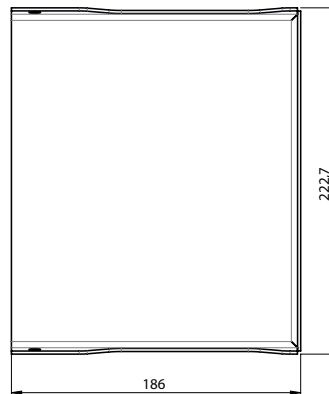


Mousepad rack, for keyboard tray 10.99 20 xx



Order No. Execution

10.99 20 07 for side mounting onto keyboard tray (right side or left side)



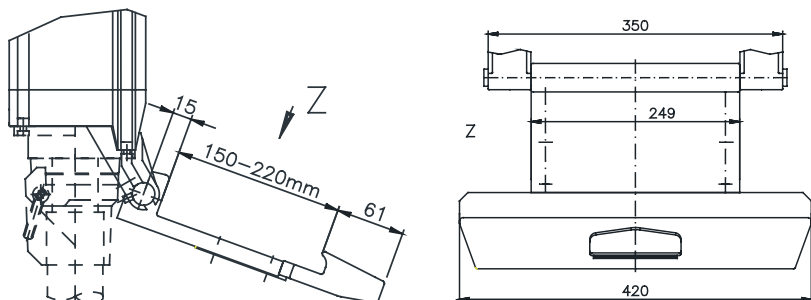
Keyboard holder for SL 2000



Mounting onto SL 2000 with front panel width ≥ 370 mm. With combination onto suspension system at Side B, please note profile depth and swivel range.

Order No. Execution

19.60 10 04 For standard PC keyboards, consisting of mounting elements and keyboard holder

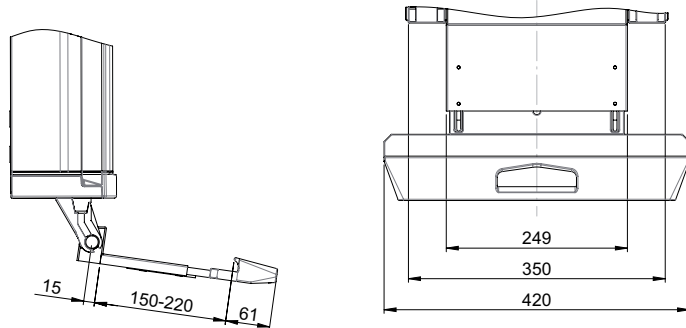


Keyboard holder SL 4000

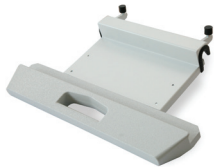


Mounting onto SL 4000 profile 2 and profile 3; profile 1 only side A (front plate width > 400 mm); keyboard optionally

| Order No. | Execution |
|--------------------|---------------------------|
| 20.10 90 20 | for standard PC keyboards |

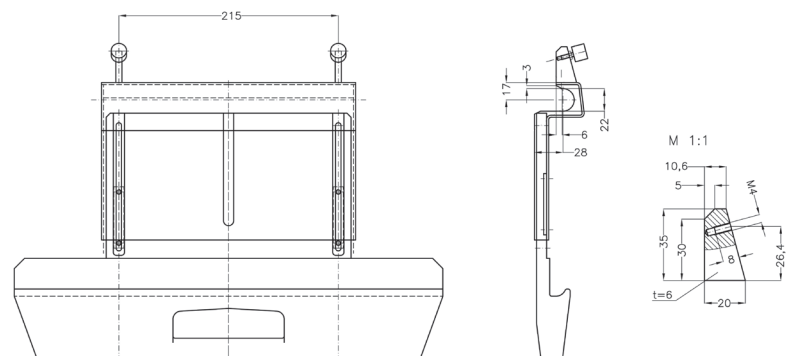


Keyboard holder SL 3000



Mounting onto SL 3000;
Note: only possible with handle mounting on side B

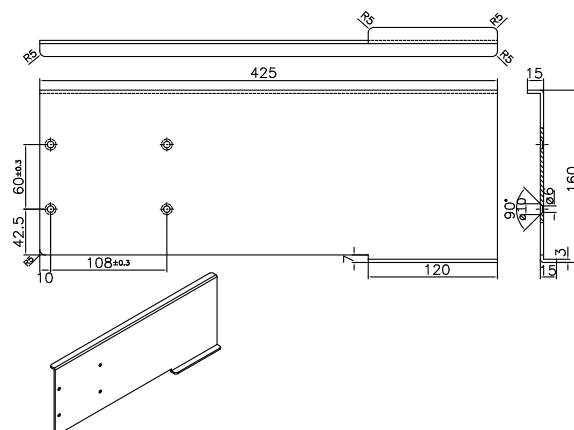
| Order No. | Execution |
|--------------------|---------------------------|
| 20.10 90 21 | for standard PC keyboards |



Mousepad support for keyboard holder



| Order No. | Execution |
|--------------------|---|
| 20.10 90 22 | for side mounting onto keyboard holder 19.60 10 04, 20.10 90 20 and 20.10 90 21 |

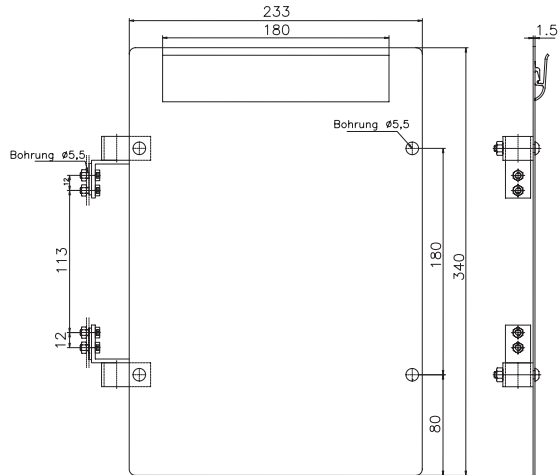


Commander system accessories

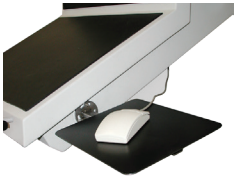
Document holder



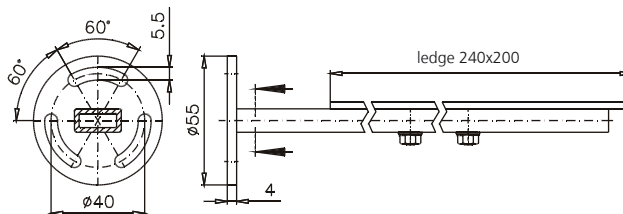
| Order No. | Execution |
|--------------------|--|
| 20.60 10 05 | Clipboard for side mounting for Commander systems SL 2000, SL 3000, SL 4000, Comtronic onto side |
| 20.60 10 04 | Clipboard for fixing onto tube handle at Commander systems |



SL 3000 Mousepad rack



| Order No. | Execution |
|--------------------|-------------------------------------|
| 19.60 10 06 | For side mounting - colour RAL 9005 |

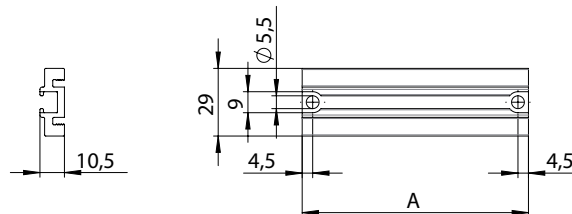


Fixing plates



for mounting components in Commander

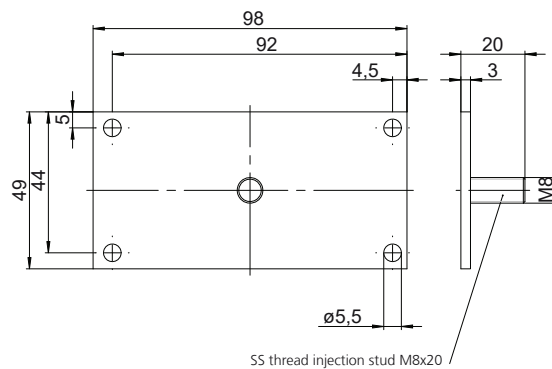
| Bestell-Nr | Type | Dimensions A |
|--------------------|-----------------------|--------------|
| 20.10 91 01 | for SL 4000 profile 2 | 97 |
| 20.10 91 02 | for SL 4000 profile 3 | 157 |
| 20.10 91 03 | for SL 4000 profile 4 | 96,3 |
| 20.10 91 99 | individual length | |



Grounding plate Commander



| Order No. | Execution |
|--------------------|---|
| 20.99 00 01 | for installation in Commander SL 4000 (profile 1 and 4) |



Wall holder set



| Order No. | Execution |
|--------------------|---|
| 20.80 90 01 | for Comtronic |
| 20.10 90 30 | for SL 3000 and SL 4000 profile 2 , 3 and 4 |

Hinge set



for directly mounting onto wall or machine.
2 hinge incl. screws, colour black

| Order No. | Execution |
|-------------|--|
| 19.60 10 08 | for Commander system SL 2000 |
| 20.10 90 50 | for Commander system SL 4000 profile 1 and 2 |
| 20.10 90 60 | for Commander system SL 4000 profile 3 |

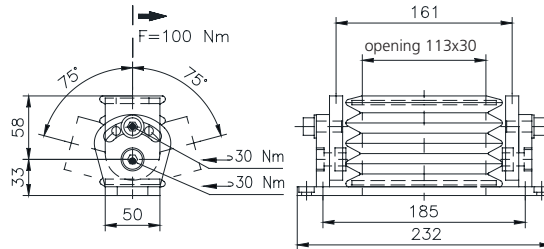
Commander system accessories

Inclining system



Continuously variable inclining system (+/- 75°) for Commander systems.
System consisting of aluminium elements with bellow.
Scope of supply: base unit without adaptation plate

Order No.
50.02 01 01



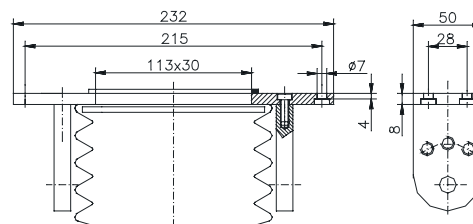
Adapter plate



for connection of inclining system with Commander systems



| Order No. | Execution |
|--------------------|---|
| 50.01 02 03 | Adapter plate SL 2000 profile 1 |
| 50.01 02 04 | Adapter plate SL 2000 profile 2 |
| 50.01 02 05 | Adapter plate SL 2000 profile 3 |
| 50.01 02 06 | Adapter plate SL 3000 profile 1 |
| 50.01 02 07 | Adapter plate SL 3000 profile 2 to 4 |
| 50.01 02 08 | Adapter plate SL 3000 console version |
| 50.01 02 09 | Adapter plate universal (s. drawing) |
| 50.01 02 10 | Beckhoff CP 7032 adapter plate |
| 50.01 02 11 | ComTronic adapter plate |
| 50.01 02 12 | Adapter plate SL 3000 profile 4 (direct mounting) |
| 50.01 02 13 | Flat panel adapter |
| 50.01 02 14 | Adapter plate SL 4000 profile 1 - 3 |
| 50.01 02 15 | Adapter plate SL 4000 console version |



Single interfaces (IP 65) incl. connection cable and plug



Mounting on profile, front plate
or rear wall

| Order No. | Execution |
|--------------------|--|
| 20.90 10 01 | USB-Interface with cable 0,6 m and 1 connector |
| 20.90 10 02 | RJ45-Interface with 1 connector |
| 20.90 11 03 | USB-Interface without cable |
| 20.90 11 04 | RJ45-Interface without cable |

Single interface flaps, metal



For data interfaces and electrical socket.
Profile 1/2/3: Rear wall or frontplate
Profile 2/3/4: Sidewise onto profile (Side C/D)

| Order No. | Execution |
|--------------------|---|
| 20.90 10 10 | Version 1 Frame: Metal, dim nickel plated Lid: Plastic, transparent |
| 20.90 10 11 | Version 2 Frame: Metal, dim nickel plated Lid: Metal, dim nickel plated |
| 20.90 10 12 | Version 3 Frame: Metal, black Lid: Metal, black |

Single interface flaps, plastic



For data interfaces and electrical socket.
Profile 1/2/3: Rear wall or frontplate
Profile 2/3/4: Sidewise onto profile (Side C/D)

| Order No. | Execution |
|--------------------|---|
| 20.90 10 14 | Version 7 Frame: Plastic, black Lid: Plastic, transparent Lock: 3 mm double ward |
| 20.90 10 15 | Version 4 Frame: Plastic, schwarz Lid: Plastic, transparent Lock: Knob |
| 20.90 10 16 | Version 8 Frame: Plastic, black Lid: Plastic, metallic silver Lock: 3 mm double ward |
| 20.90 10 17 | Version 5 Frame: Plastic, black Lid: Plastic, metallic silver Lock: Knob |
| 20.90 10 18 | Version 9 Frame: Plastic, black Lid: Plastic, light grey Lock: 3 mm double ward |
| 20.90 10 19 | Version 6 Frame: Plastic, black Lid: Plastic, light grey Lock: Knob |

Commander system accessories

Double interface flaps, metal



For data interfaces and electrical socket.
 Profil 1/2/3: Rear wall or front panel
 Profil 2/3/4: sidewise onto profile (Side C/D)

| Order No. | Execution |
|--------------------|--|
| 20.90 11 10 | Version 11 Frame: Metal, dim nickel plated Lid: Plastic transparent |
| 20.90 11 11 | Version 12 Frame: Metal, dim nickel plated Lid: Metal, dim nickel plated |
| 20.90 11 12 | Version 13 Frame: Metal, black Lid: Metal, black |

Double interface flaps, plastic



For data interfaces and electrical socket.
 Profil 1/2/3: Rear wall oder front panel
 Profil 2/3/4: Sidewise onto profile (Side C/D)

| Order No. | Execution |
|--------------------|--|
| 20.90 11 14 | Version 17 Frame: Plastic, black Lid: Plastic, transparent Lock: 3 mm double ward |
| 20.90 11 15 | Version 14 Frame: Plastic, black Lid: Plastic, transparent Lock: Knob |
| 20.90 11 16 | Version 18 Frame: Plastic, black Lid: Plastic, metallic silver Lock: 3 mm double ward |
| 20.90 11 17 | Version 15 Frame: Plastic, black Lid: Plastic, metallic silver Lock: Knob |
| 20.90 11 18 | Version 9 Frame: Plastic, black Lid: Plastic, light grey Lock: 3 mm double ward |
| 20.90 11 19 | Version 6 Frame: Plastic, black Lid: Plastic, light grey Lock: Knob |

Installation components for interface flaps



| Order No. | Execution |
|--------------------|--|
| 20.90 11 05 | Schuko/FI Germany (VDE) with additional cut-out for earth leakage circuit breaker (can only be used onto double flaps) |



Data interfaces



RJ45; USB; SUB-D9; SUB-D9
1 × RJ45, 8-pole. Metal, CAT5e (socket/socket)
1 × USB (socket/socket) Type A
2 × SUB-D9 (socket/socket)

Order No. **20.90 10 66**



RJ45; USB; USB (type A)
1 × RJ45, 8-pole. metal, CAT5e (socket/socket)
2 × USB (socket/socket) Type A

Order No. **20.90 10 59**



RJ45; RJ45
2 × RJ45, 8-pole. Metal, CAT5e (socket/socket)

Order No. **20.90 10 69**



RJ45
1 × RJ45, 8-pole. Metal, CAT5e (socket/socket)
1 × blank cover for SUB-D9

Order No. **20.90 10 70**



RJ45; RJ45; RJ45; RJ45
4 × RJ45, 8-pole. Metal, CAT5e (socket/socket)

Order No. **20.90 10 71**



USB (type A); RJ45
1 × USB (socket/socket) Type A
1 × RJ45, 8-pole. metal, CAT5e (socket/socket)

Order No. **20.90 10 72**



1 × RJ45
8-pole. metal, CAT5e (socket/socket)
1 × USB (socket/socket) Type A
1 × SUB-D9 (socket/pin)

Order No. **20.90 10 74**



RJ45; USB (type A); SUB-D9
1 × RJ45, 8-pole. metal, CAT5e (socket/socket)
1 × USB (socket/socket) Type A
1 × SUB-D9 (socket/socket)

Order No. **20.90 10 75**



USB (type A); USB (type A)
2 × USB (socket/socket) Type A

Order No. **20.90 10 86**



USB; USB; USB; USB (type A)
4 × USB (socket/socket) Type A

Order No. **20.90 10 88**



RJ45; USB; USB (type A)
1 × RJ45, 8-pole. Metal, CAT5e (socket/socket)
2 × USB (socket/socket)/0.7 m Kabel) Type A

Order No. **20.90 10 89**



USB (type A); RJ45
1 × USB (Buchse/Buchse/0.7 m Kabel) Type A
1 × RJ45, 8-pole. metal, CAT5e (socket/socket)

Order No. **20.90 10 95**

Commander system accessories

Flap insert: Plug insert



Germany (VDE)
grey, screw clamps, LED (yellow)

Order No. **20.90 10 24**



France (UTE)
screw clamps

Order No. **20.90 10 26**



Italy (CEI 23-16)
with electric shock protection,
screw clamps

Order No. **20.90 10 28**



USA (NEMA 5-15)
screw clamps

Order No. **20.90 10 20**



UK (BS)
with electric shock protection,
screw clamps

Order No. **20.90 10 25**



China (CCC)
with electric shock protection,
screw clamps

Order No. **20.90 10 22**



Denmark
spring clamps

Order No. **20.90 10 23**



Switzerland
spring clamps

Order No. **20.90 10 29**



Australia
screw clamps

Order No. **20.90 10 21**



India (IS 1293)
with electric shock protection,
screw clamps

Order No. **20.90 10 27**



Germany (VDE)
yellow, spring clamps

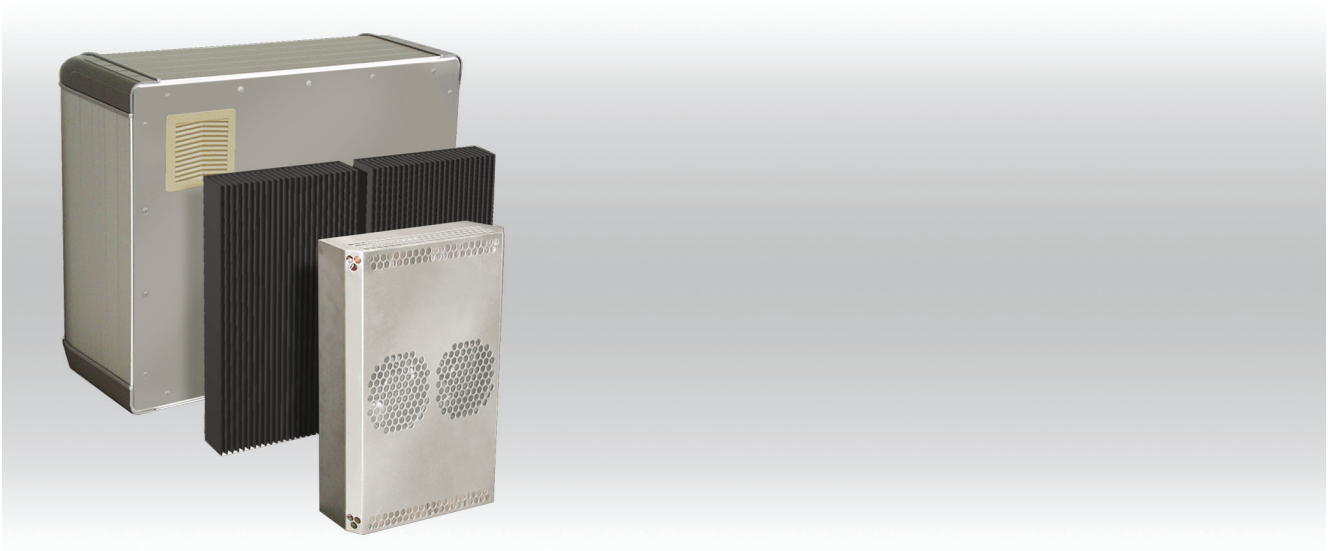
Order No. **20.90 11 20**



Germany (VDE)
orange, spring clamps

Order No. **20.90 11 21**

Heat management

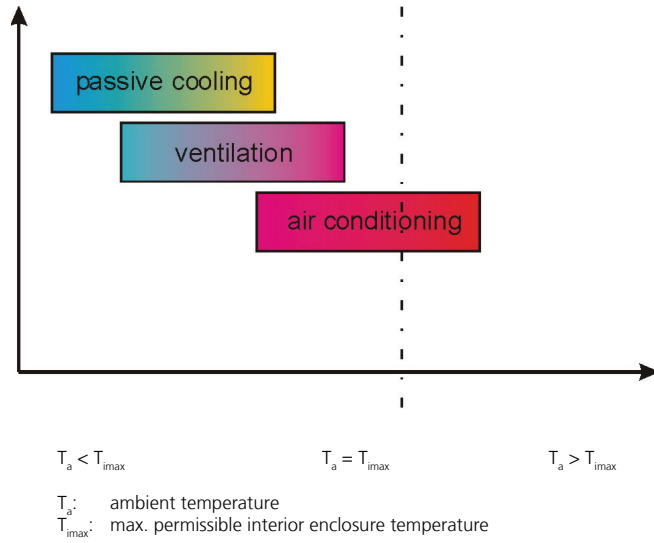


- + Climatic systems for ROSE Commander systems, co-ordinated with the application
- + Filter ventilators upto 25 m³/h discharge flow
- + Compressor cooling systems upto 430 W cooling capacity
- + Peltier cooling elements upto 150 W cooling capacity

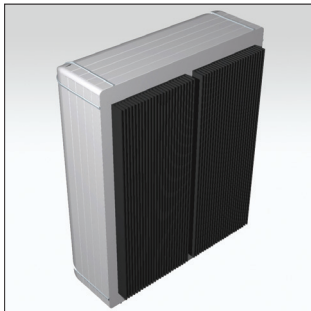
Included in delivery

Climatic system depending upon execution completely Commander system

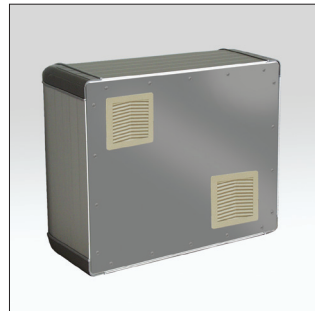
Operating and control systems need an enclosure system, which makes an optimal handling possible for the accommodation at the machine in the production process. ROSE offers for this special commander systems. These operating and control systems, usually realized on PC basis, produce a thermal power loss. For the avoidance of the loss of the devices or components and for the securing of the production process air conditioning is necessary. Rose offers here a complete aligned cooling system. With additional heat sinks up to the modern Peltier cooling systems - all options are possible.



For all our Commander systems we offer particularly devised cooling systems to you:



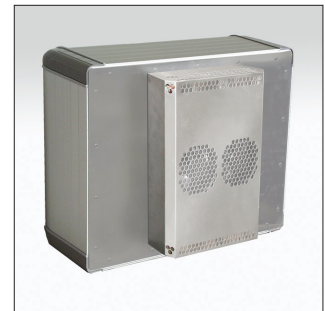
Passive cooling with heat sink rear walls



Active cooling with filter ventilator systems



Active cooling with compressor cooling systems



Active cooling with peltier cooling elements



Heat management

Filter ventilators with snatching assembly



| Order No. | Type | Name | Nominal voltage | Discharge flow | Weight (g) |
|--------------------|---------------|-------------------|-----------------|----------------|------------|
| 83.10 01 01 | RLV 100 230 D | Filter ventilator | 230 V AC | 25 m³/h | 520 |
| 83.10 01 02 | RLV 100 24 D | Filter ventilator | 24 V DC | 25 m³/h | 300 |
| 83.10 01 11 | RGV 100 D | Exhaust filter | | 15 m³/h | 60 |

Application and function

for the ventilation of cabinets, operating and control enclosures.
 Two versions: for the electrical connection at 24 V DC and to 230 V AC.
 The simple assembly takes place by cutout in door, side wall, rear wall or roof of the enclosure.

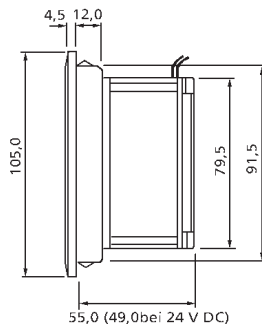
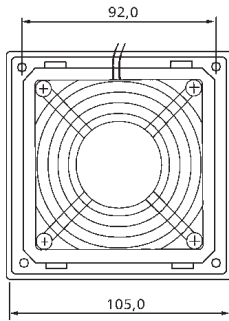
Advantages

Generally high protection classification (IP 54) by fin mounting.
 Short assembly time by simple snatching assembly.
 The ventilator used has UL-, CSA-, VDE- and CE-approvals.

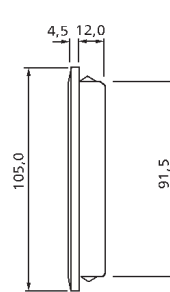
Technical data

| | |
|--------------------|--------------------|
| Material | Enclosure: Plastic |
| Ingress protection | IP 54 |
| Nominal voltage | 24 V DC / 230 V AC |

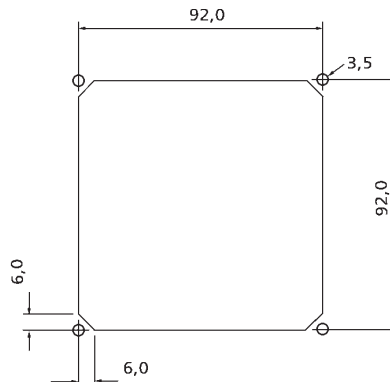
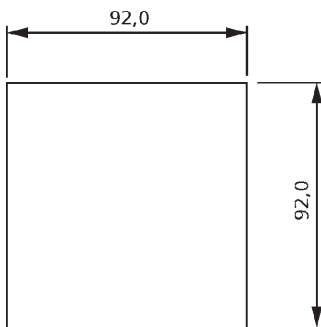
RLV 100 230 D / RLV 100 24 D



RGV 100 D



Mounting cutout



Octagonal cutout and drillings only by screw fastener

Mini cooling systems in Peltier technology



| Order No. | Type | Cooling capacity | Nominal voltage | Nominal current | Weight (g) |
|--------------------|---------|------------------|-----------------|-----------------|------------|
| 83.10 03 01 | RPK 50 | 50 W | 24 V DC | 2,5 A | 3280 |
| 83.10 03 02 | RPK 100 | 100 W | 24 V DC | 4,8 A | 6800 |
| 83.10 03 03 | RPK 150 | 150 W | 24 V DC | 6,5 A | 3280 |

Application and function:

for the active cooling of cabinets, operating and control enclosures, industrial PC's, monitor and flat screen monitor.

3 types in 50, 100 and 150 W cooling capacity are available.

For the electrical connection at 24 V DC. The simple assembly takes place by cutout in door, side wall, rear wall or roof of the enclosure.

Advantages of

Peltier cooling units:

- compact design
- assembly in each position, because the units work without refrigerants
- high efficiency

The Peltier effect

The Peltier effect is a thermoelectrical procedure, where a semiconductor material is used which is caused with appropriate doting by current guidance the change of the energy state by charge carriers and thus used to the transport of heat.

Technical data

| | |
|-----------------------------------|------------------|
| Operating temperature | -10 °C to +60 °C |
| Nominal current | 24 V +6%/-10% |
| Ingress protection inside/outside | IP 54 |

Computation of the necessary cooling performance:

$$P_k = P_v - k \times A \times T$$

P_k = Necessary cooling performance (W)

P_v = Dissipation loss of built in devices (W)

$k \times A \times T$ = Inner convection of device

k = Thermal transmission coefficient (eg: sheet metal = 5.5 W / m² K)

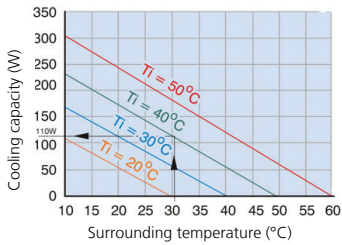
A = Usable enclosure area (m²)

$\Delta T = T_i - T_a$ = Temperature difference between inner and surrounding temperature

Heat management

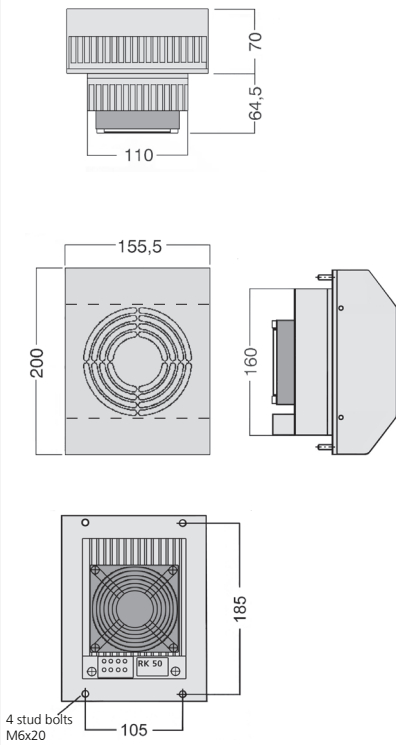
RPK 50

Diagram

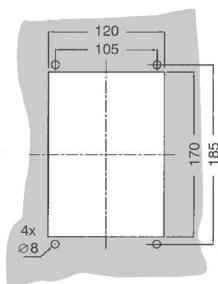


Chose: $P_K = 6 \text{ W/K} \times \Delta T + 50 \text{ W}$
 Example: $T_a = 30^\circ\text{C}$, $T_i = 40^\circ\text{C}$ d.h.: $P_K = 110 \text{ W}$

Dimensions

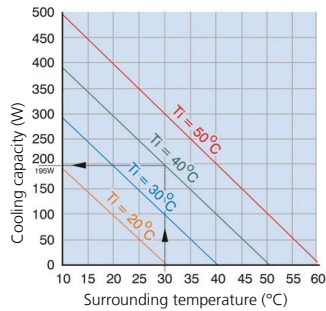


Mounting cutout



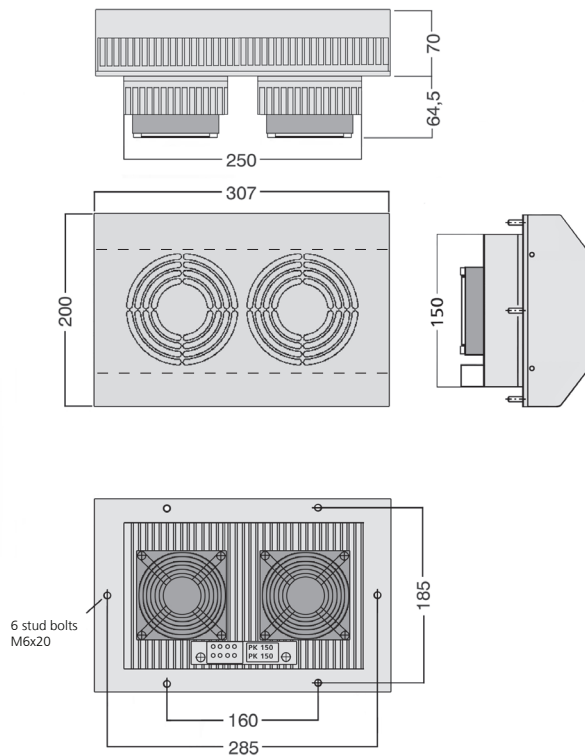
RPK 100

Diagram

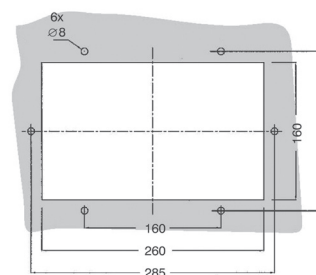


Chose: $P_K = 9,5 \text{ W/K} \times \Delta T + 100 \text{ W}$
 Example: $T_a = 30^\circ\text{C}$, $T_i = 40^\circ\text{C}$ d.h.: $P_K = 195 \text{ W}$

Dimensions

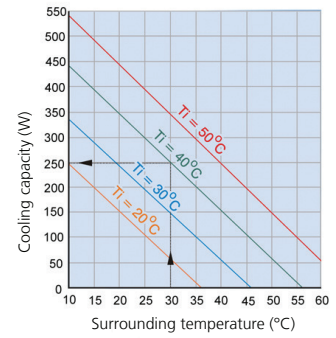


Mounting cutout

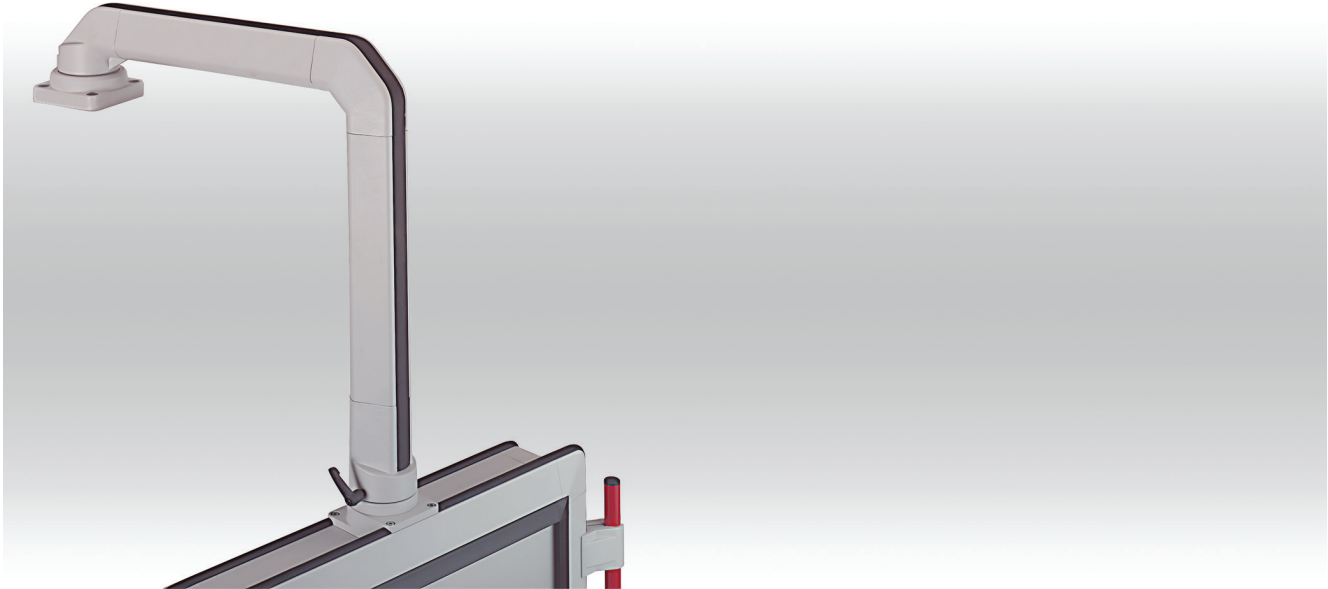


RPK 150

Diagram



Chose: $P_K = 9,5 \text{ W/K} \times \Delta T + 150 \text{ W}$
 Example: $T_a = 30^\circ\text{C}$, $T_i = 40^\circ\text{C}$ d.h.: $P_K = 245 \text{ W}$



- + Industrial suspension system for control enclosures
- + Modular construction with free accessible cable channel
- + Wall, top-mounting or floor fixing

Included in delivery

Individual system components incl. cable channel covering and assembly materials

Technical data

| | |
|---------------------------|--|
| Material | Connecting tube: DIN EN 573 EN AW-ALMgSi Components: DIN EN 1706 EN AC-AISI 12 (Fe) Cover profile: TPE |
| Painting | Powder coating |
| Colour | Tube and components in RAL 7035, lightgrey Cover profile: RAL 9005, jet black |
| Ingress protection | IP 54 to EN 60529 |



Product range

| Type | Order No. | Weight (g) |
|---------------------------|--------------------|------------|
| Top-mounted joint | 49.45 66 00 | 1430 |
| Foot stand | 49.45 72 00 | 538 |
| Wall hinge W | 49.45 70 00 | 2250 |
| Angle | 49.45 71 00 | 533 |
| Coupling | 49.45 73 00 | 521 |
| Coupling GTKe-PRO | 49.45 73 02 | 1010 |
| Flange coupling | 49.45 77 00 | 957 |
| Angle coupling | 49.45 75 00 | 882 |
| Angle coupling GTKe-PRO | 49.45 75 02 | 1270 |
| Flange angle coupling | 49.45 78 00 | 1017 |
| Spare cover profile 2.5 m | 49.45 69 00 | 206 |
| Adapter plate GTKe-PRO | 49.45 00 01 | 175 |

Aluminium profile, max. outreach 1.5 m

| Connecting tube | Order No. | Weight (g) |
|----------------------------------|--------------------|------------|
| Standard length: 0,5 m | 49.45 10 01 | 1625 |
| Standard length: 1 m | 49.45 10 02 | 3250 |
| Standard length: 2 m* | 49.45 10 03 | 6500 |
| Variable length (please specify) | | |

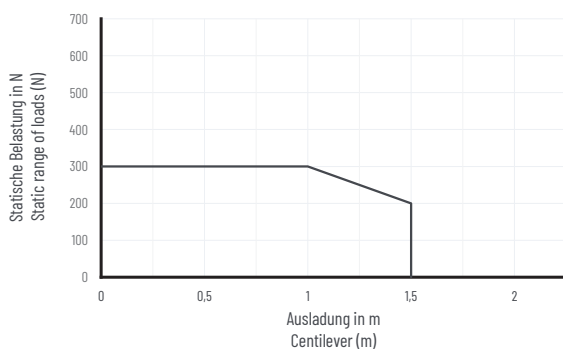
without threaded hole

Adaptation capability, using elements from GT 48/2 range*

| | Order No. | Weight (g) |
|---------------------|--------------------|------------|
| Console flange 30° | 49.49 76 00 | 400 |
| Adapter flange | 49.49 79 00 | 1500 |
| Inclination adapter | 49.49 80 00 | 800 |

* Special colour RAL 7035 please specify when ordering.

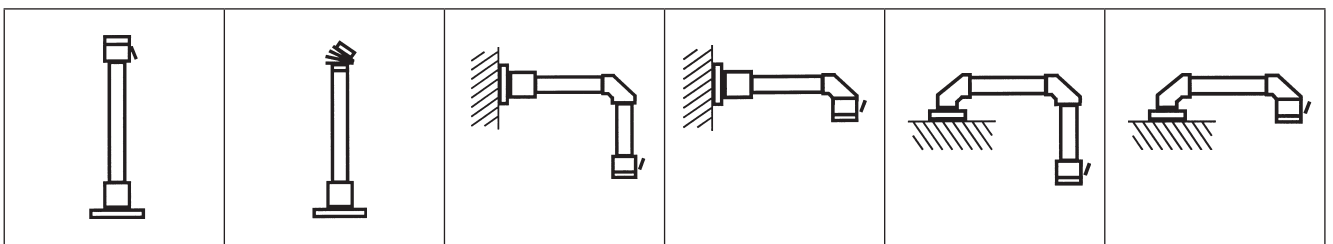
Load diagram



Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!). Further information for this on request. The values in the above load diagram are gulty to an execution hanging or standing. The declarations of weight are a summary from

- installation weight,
- Commander weight
- and all components and tubes between Commander and angle.

System structure

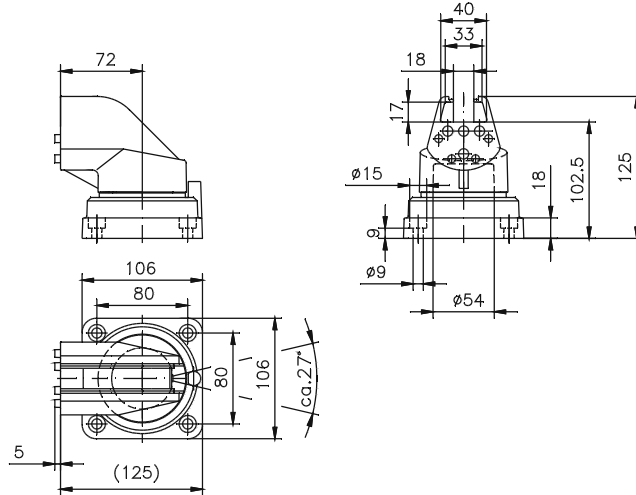


Components

Top-mounted joint



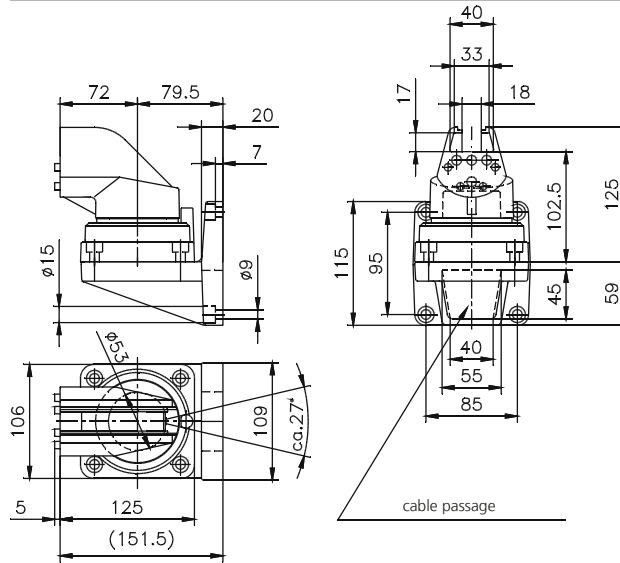
| Order No. | Execution |
|--------------------|---|
| 49.45 66 00 | Cast aluminium with steel inner tube and flange mounting. Swivelling range 330° (cannot be limited or stopped) |



Wall hinge



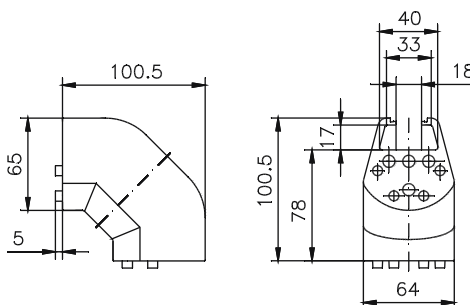
| Order No. | Execution |
|--------------------|--|
| 49.45 70 00 | Cast aluminium with steel inner tube and plain bearing Swivelling range 330° (cannot be limited or stopped) |



Angle



| Order No. | Execution |
|--------------------|---------------------------|
| 49.45 71 00 | Cast aluminium, angle 90° |

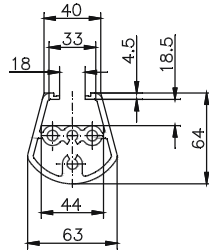


Components

Connecting tube



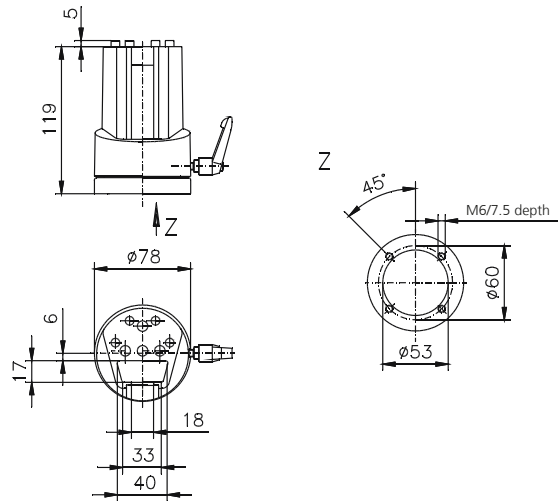
| Order No. | Execution |
|--------------------|--|
| 49.45 10 01 | 0,5 m Aluminium extruded profile incl. plastic cover profile |
| 49.45 10 02 | 1 m Aluminium extruded profile incl. plastic cover profile |
| 49.45 10 03 | 2 m Aluminium extruded profile incl. plastic cover profile |



Coupling



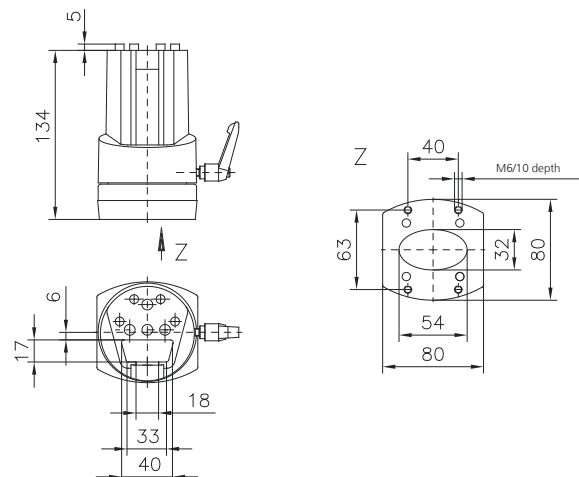
| Order No. | Execution |
|--------------------|--|
| 49.45 73 00 | Cast aluminium with internal steel tube. Swivelling range 290° |



Coupling für Siemens Pro



| Order No. | Execution |
|--------------------|---|
| 49.45 73 02 | for direct connection to Siemens Pro devices. Swivelling range 290° |



Components

Angle coupling

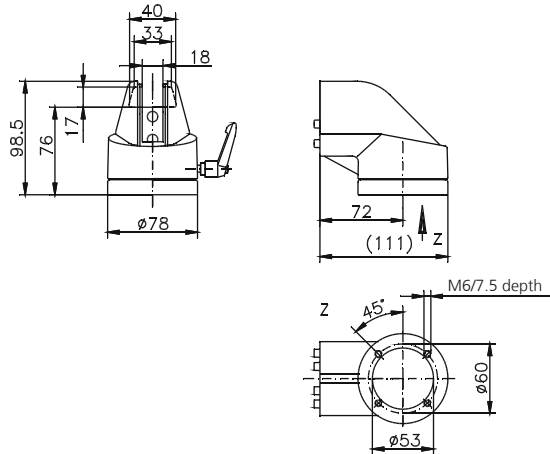


Order No.

Execution

49.45 75 00

Combination of angle and coupling for horizontal tube exit. Cast aluminium with steel inner tube. Swivelling range 290°



Angle coupling for Siemens Pro

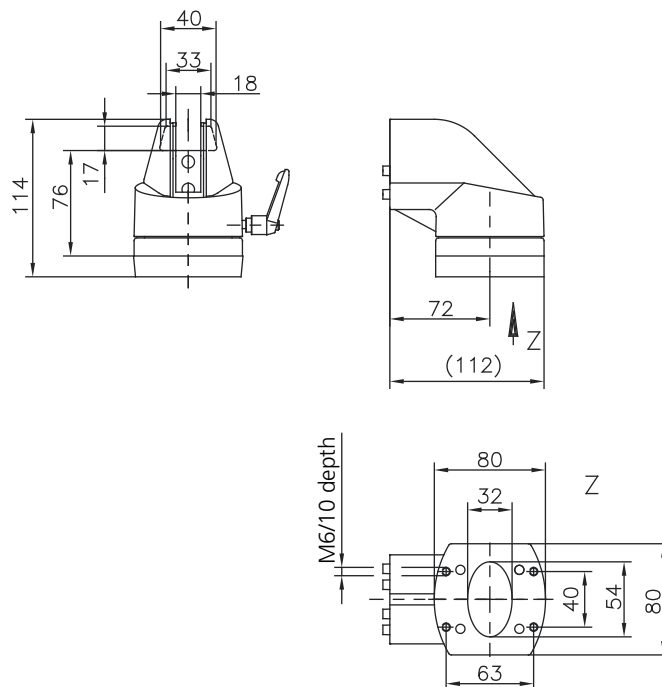


Order No.

Execution

49.45 75 02

for direct connection to Siemens Pro commander units
Combination of angle and coupling for horizontal tube exit. Cast aluminium with steel inner tube. Swivelling range 290°



Components

Flange coupling

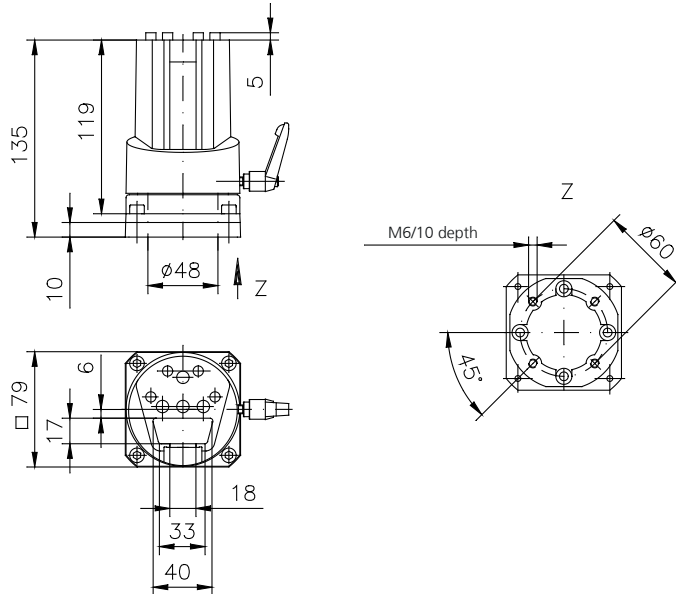


Order No.

Execution

49.45 77 00

Cast aluminium with internal steel tube.
Swivelling range 290°



Flange angle coupling

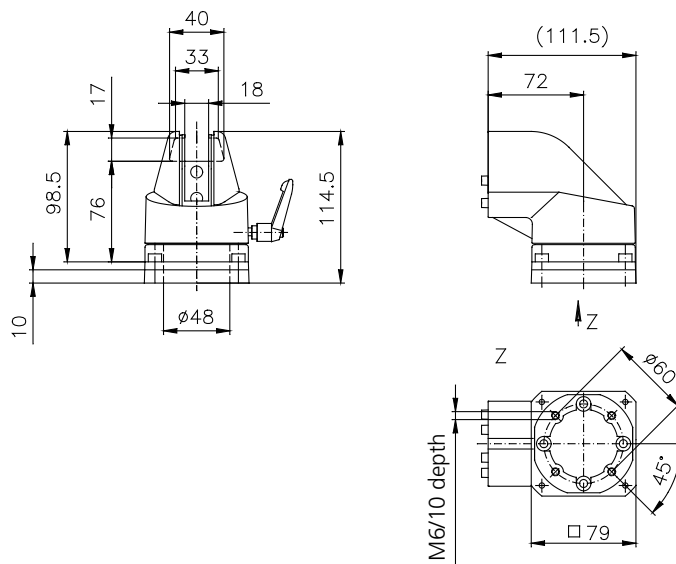


Order No.

Execution

49.45 78 00

Combination of angle and coupling for horizontal tube exit. Cast aluminium with internal steel tube. Swivelling range 290°

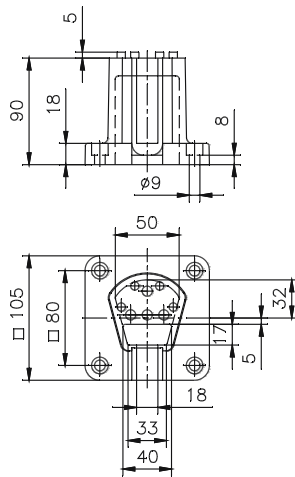


Components

Foot stand



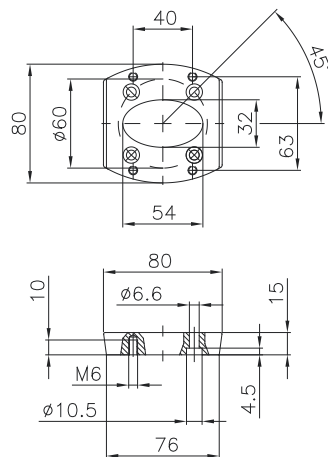
| Order No. | Execution |
|--------------------|-------------------------------|
| 49.45 72 00 | Cast aluminium, fixed version |



Adapter plate GTKe-Pro



| Order No. | Execution |
|--------------------|---|
| 49.45 00 01 | Adapter plate for connecting GTK electronic elements with Siemens Pro-command units (not necessary for coupling GTKe Pro and angle coupling GTKe Pro) |





- + Aluminium profile suspension system for light/medium loads up to 30 kg
- + Product family GTS / GTN / GTL
- + Can be combined with all Commander systems
- + Standardly adjustable solution for individual loads

Included in delivery

System individual components incl. cable duct cover and assembly material.

Technical data

| | |
|---------------------------|---|
| Material | Connecting tube: DIN EN 573 EN AW-AMgSi Components: DIN EN 1706 EN AC-ALSi 12 (Fe) |
| Painting | Powder coating |
| Colour | Tube, components: RAL 7035, light grey |
| Ingress protection | IP 54 to EN 60529 |

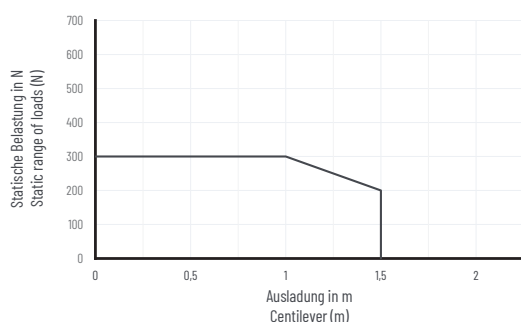
Product range

| Type | Order No. | Weight (g) |
|--|--------------------|------------|
| Top-mounted joint | 49.44 66 00 | 1560 |
| Foot stand | 49.44 72 00 | 300 |
| Foot stand turnable | 49.44 72 21 | 872 |
| Wall hinge W | 49.44 70 00 | 2400 |
| Wall hinge S | 49.44 70 30 | 1720 |
| Angle | 49.44 71 00 | 783 |
| Angle GTS / GT 48/2 | 49.44 71 49 | 1100 |
| Coupling | 49.44 73 00 | 569 |
| Coupling 15°, combination of coupling and console flange 15° | 49.44 73 76 | 891 |
| Flange coupling | 49.44 77 00 | 901 |
| Angle coupling | 49.44 75 00 | 1260 |
| Angle coupling, combination of angle coupling and console flange 15° | 49.44 75 76 | 1550 |
| Inclining adapter | 49.44 80 00 | 950 |
| Coupling Siemens PRO | 49.44 73 02 | 820 |
| Angle coupling Siemens PRO | 49.44 75 02 | 1480 |
| Adapter plate Siemens Pro | 49.44 00 01 | 198 |
| Coupling DN, combination of coupling and inclining adapter | 49.44 62 00 | 1600 |

| Aluminium profile, max. outreach 1.5 m | Order No. | Weight (g) |
|--|--------------------|------------|
| GTS Profile, painted RAL 7035, 0.5 m | 49.44 10 01 | 1570 |
| GTS Profile, painted RAL 7035, 1 m | 49.44 10 02 | 3110 |
| GTS Profile, painted RAL 7035, 2 m* | 49.44 10 03 | 6210 |
| Variable length (please specify) | 49.44 10 99 | |
| Aluminium profile, max. outreach 1.5 m | | |
| GTS Profile anodized 0,5 m | 49.44 11 01 | 1570 |
| GTS Profile anodized 1 m | 49.44 11 02 | 3110 |
| GTS Profile anodized 2 m* | 49.44 11 03 | 6210 |
| GTS Profile anodized, variable length (please specify) | 49.44 99 99 | |

* without threaded hole

Load diagram

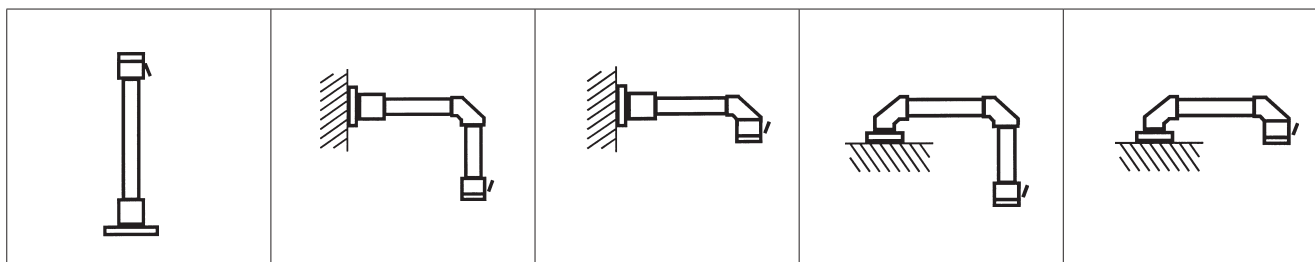


Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!).

Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing.

The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.

System structure



Components

Top-mounted joint

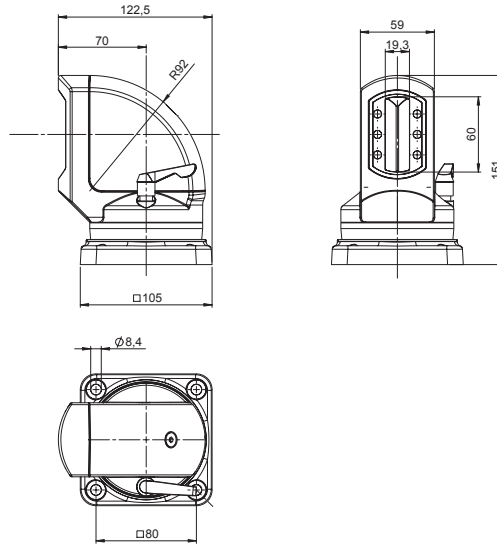


Order No.

Execution

49.44 66 00

Cast aluminium with flange mounting. Swivelling range to 330°



Wall hinge

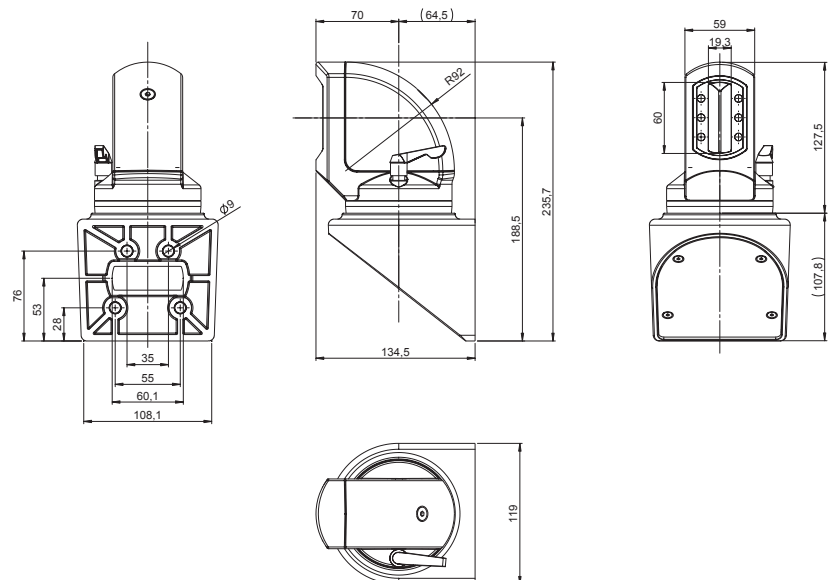


Order No.

Execution

49.44 70 00

Cast aluminium with plain bearing. Lockable via clamping lever. Swivelling range 330°



Components

Angle

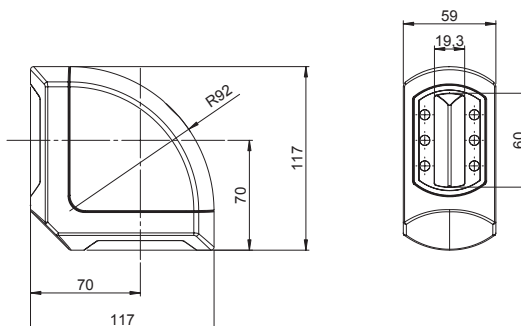


Order No.

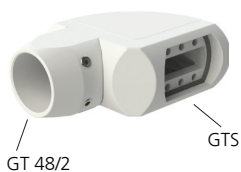
Execution

49.44 71 00

Cast aluminium, angle 90°, incl. lid



Angle GTN II / GTS

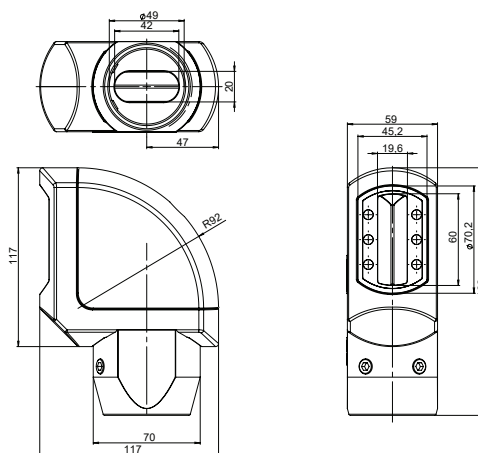


GT 48/2

GTS

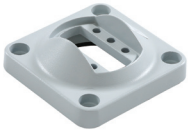
Order No.

Execution

49.44 71 49for combination GTS and $\varnothing 48$ Round tube system

Components

Foot stand

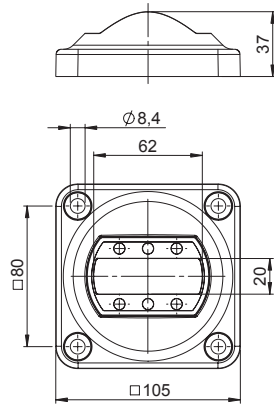


Order No.

Execution

49.44 72 00

Cast aluminium, fixed version, for floor mounting or wall mounting with rigid outlet



Foot stand turnable

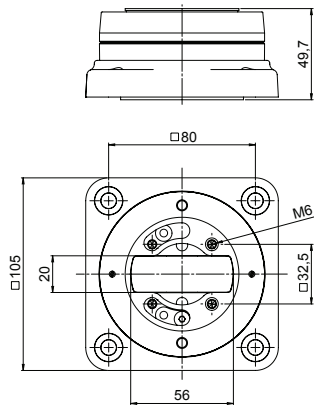


Order No.

Execution

49.44 72 21

Cast aluminium with adjustable stop for direct connection onto machine and command unit

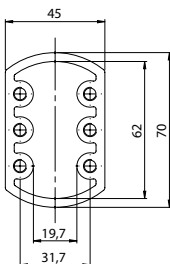


Components

Profile, RAL 7035



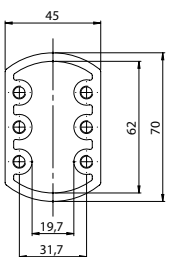
| Order No. | Execution |
|--------------------|---|
| 49.44 10 01 | 0.5 m Aluminium extrusion profile |
| 49.44 10 02 | 1 m Aluminium extrusion profile |
| 49.44 10 03 | 2 m Aluminium extrusion profile |
| 49.44 10 99 | Aluminium extrusion profile, variable length (please specify) |



Profile, anodized



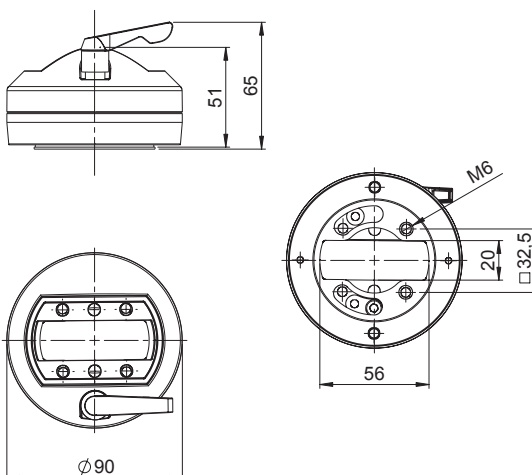
| Order No. | Execution |
|--------------------|--|
| 49.44 11 01 | 0.5 m Cast aluminium extrusion profile |
| 49.44 11 02 | 1 m Cast aluminium extrusion profile |
| 49.44 11 03 | 2 m Cast aluminium extrusion profile |
| 49.44 11 99 | Cast aluminium extrusion profile, variable length (please specify) |



Coupling



| Order No. | Execution |
|--------------------|--|
| 49.44 73 00 | Cast aluminium, Swivelling range 330°. Lockable with clamping lever. |



Components

Coupling Siemens Pro

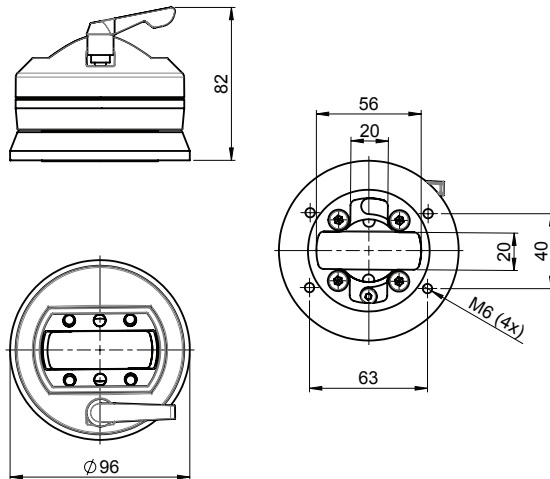


Order No.

Execution

49.44 73 02

For direct connecting of Siemens PRO command units. Diecast aluminium, coupling mounting onto Siemens base adaption; Swivelling range 330°. Lockable with clamping lever.



Flange coupling

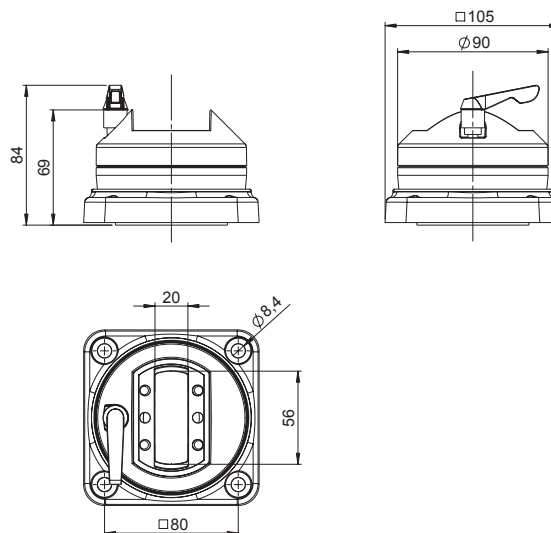


Order No.

Execution

49.44 72 00

Diecast aluminium with adjustable stop position between machine and control panel. Lockable with clamping lever.



Components

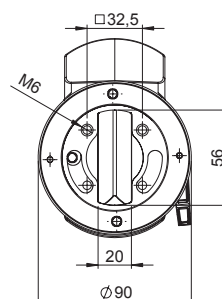
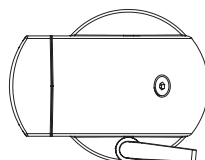
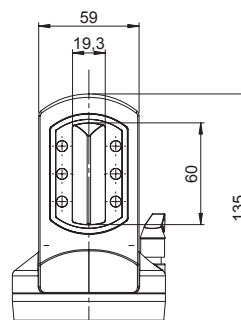
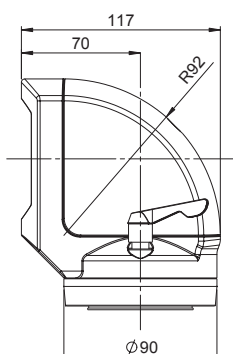
Angle coupling



Order No. Execution

49.44 75 00

Combination of angle und coupling for horizontal tube exit. Diecast aluminium, Swivelling range 330°. Lockable with clamping lever.



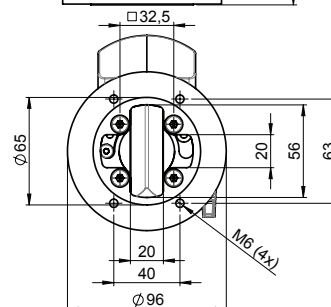
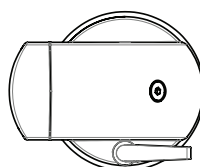
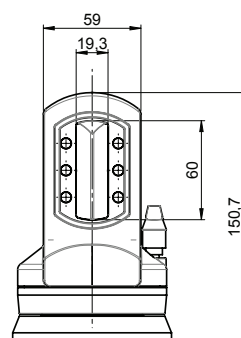
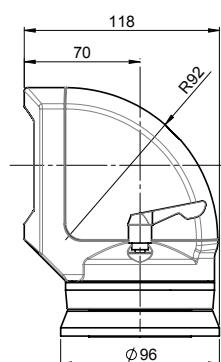
Angle coupling Siemens Pro



Order No. Execution

49.44 75 02

For direct connecting of Siemens PRO command units. Diecast aluminium, coupling mounting onto Siemens baseadaption; Swivelling range 330°. Lockable with clamping lever.

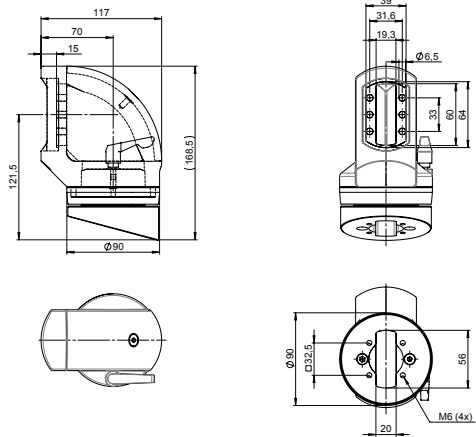


Components

Angle coupling, combination of angle coupling and console flange 15°



| Order No. | Execution |
|--------------------|--|
| 49.44 75 76 | Combination of angle und coupling for horizontal tube exit. Diecast aluminium, Swivelling range 330°, Lockable with clamping lever, including 15° Inclining. |



Adapter plate Siemens Pro



| Order No. | Execution |
|--------------------|---|
| 49.44 00 01 | For connecting GTS system components (e.g. inclining adapter) with Siemens PRO command units (with GTS coupling Siemens PRO and GTS angle coupling Siemens Pro not necessary) |

Inclining adapter



| Order No. | Execution |
|--------------------|---|
| 49.44 80 00 | Diecast aluminium element with bellows and gasket. Inclining range from 0° to 45° continuously adjustable. Fixing with screws between enclosure and coupling. |

Components

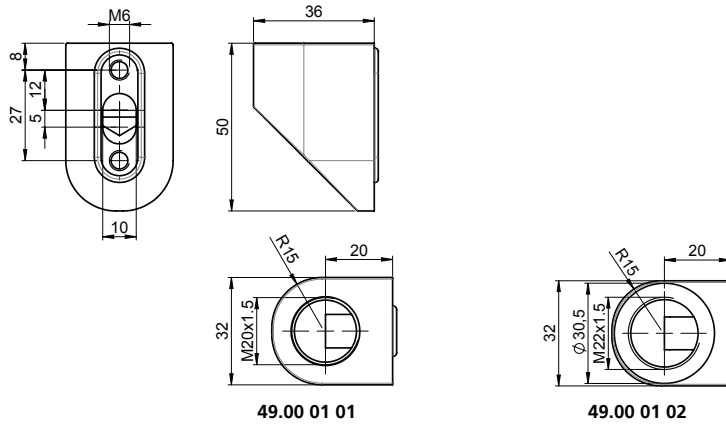
Base connection element for suspension systems, command units and cabinets



Order No. Execution

49.00 01 01 Signal light adaptation with thread M20x1.5 mm

49.00 01 02 Signal light adaptation with thread M22x1.5 mm



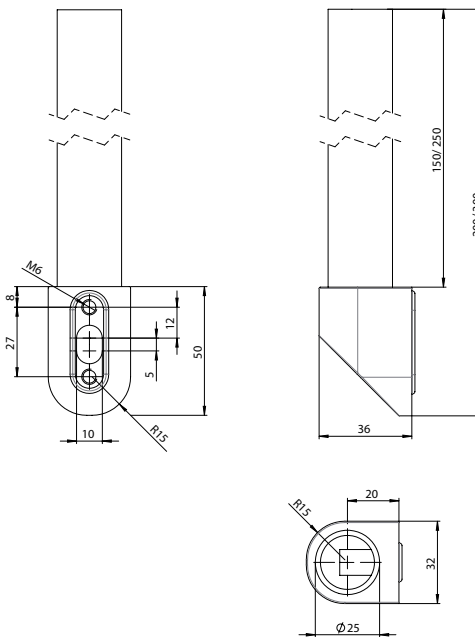
Base connection element for suspension systems, command units and cabinets



Order No. Execution

49.00 01 03 Signal light adaption with tube \varnothing 25 mm, length = 250 mm

49.00 01 04 Signal light adaption with tube \varnothing 25 mm, length = 150 mm





- + Design aluminium suspension system
- + Closed profile system
- + profile with free accessible cable duct
- + Can be combined with all control enclosures
- + Optionally with continuous potential equalization

Included in delivery

System individual components incl. cable duct cover and assembly material.

Technical data

| | |
|---------------------------|---|
| Material | Tube: DIN EN 573 EN AW-ALMgSi Components: DIN EN 1706 EN AC-AISI 12 (Fe) Cover profile: TPE |
| Painting | Powder coating |
| Colour | Tube, components: RAL 7035, light grey Cover profile: RAL 9005, jet black |
| Ingress protection | IP 54 to EN 60529 |

Product range

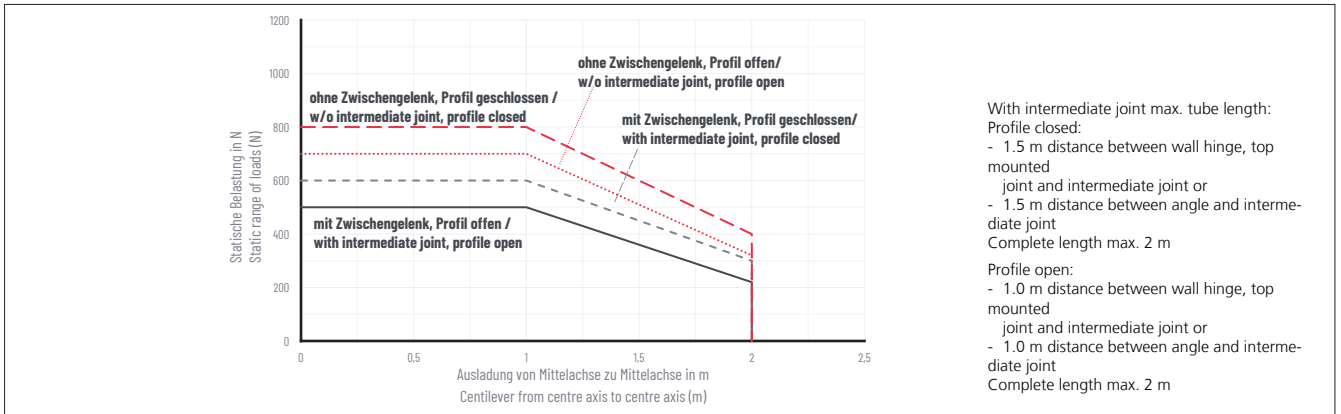
| Type | Order No. | Weight (g) |
|--|--------------------|----------------|
| Top-mounted joint | 49.47 66 00 | 5300 |
| Top-mounted joint light* | 49.47 66 01 | 5300 |
| Top-mounted joint (ceiling mounting) | 49.47 66 20 | 5300 |
| Wall hinge | 49.47 70 00 | 6150 |
| Wall hinge light* | 49.47 70 01 | 6150 |
| Wall hinge hanging | 49.47 70 20 | 6150 |
| Vertical Wall hinge | 49.47 70 30 | 6060 |
| Angle | 49.47 71 00 | 1130 |
| Angle GTN II / GTK electronic | 49.47 71 45 | 1760 |
| Angle GTN II / GTS | 49.47 71 44 | 1860 |
| Angle GTN II / GT 48/2 | 49.47 71 49 | 2030 |
| Coupling | 49.47 73 00 | 1780 |
| Coupling GTN II-PRO | 49.47 73 02 | 2190 |
| Coupling fixed | 49.47 73 03 | 1220 |
| Angle coupling | 49.47 75 00 | 2740 |
| Angle coupling GTN II-PRO | 49.47 75 02 | 3500 |
| Angle coupling | 49.47 75 49 | 5300 |
| Intermediate joint "Z" | 49.47 67 00 | 6520 |
| Intermediate joint "Z" light* | 49.47 67 01 | 6520 |
| Intermediate joint "S" | 49.47 67 02 | 6520 |
| Intermediate joint "S" light* | 49.47 67 03 | 6520 |
| Foot stand fixed | 49.47 72 00 | 1220 |
| Foot stand turnable with adapter plate | 49.47 72 20 | 3630 |
| Foot stand turnable | 49.47 72 21 | 2320 |
| Foot stand turnable with adapter plate light* | 49.47 72 22 | 3590 |
| Console flange 15° | 49.47 76 00 | 708 |
| Column, length max. 2.0 m (please specify individual length) | 49.47 00 04 | special length |
| Spare cover profile 2,5 m | 49.45 69 00 | 206 |
| Adjustment set | 49.47 00 06 | 58 |
| Inclining adapter | 49.47 80 00 | 2320 |
| Adapter plate GTN II-PRO | 49.47 00 01 | 469 |
| Height adjustment unit GTN II / GT 48/2 | 49.47 30 01 | |
| Height adjustment slide hanging | 49.47 30 02 | 14000 |
| Height adjustment slide standing | 49.47 30 03 | 13000 |

* light: can be used for control units with low load (up to 30 kg/2 m) with lower swivel force.

| Aluminium profile | Profile open | Weight (g) | Profile closed | Weight (g) |
|----------------------------------|--------------------|------------|--------------------|------------|
| Standard length: 0,5 m | 49.47 10 01 | 3060 | 49.47 20 01 | 2710 |
| Standard length: 1 m | 49.47 10 02 | 6140 | 49.47 20 02 | 5420 |
| Standard length: 2 m | 49.47 10 03 | 12000 | 49.47 20 03 | 11000 |
| Variable length (please specify) | 49.47 10 99 | | 49.47 20 99 | |
| Profile anodized | | | | |
| Standard length: 0,5 m | 49.47 11 01 | 3070 | 49.47 21 01 | 2710 |
| Standard length: 1 m | 49.47 11 02 | 6140 | 49.47 21 02 | 5420 |
| Standard length: 2 m | 49.47 11 03 | 12000 | 49.47 21 03 | 11000 |
| Variable length (please specify) | 49.47 11 99 | | 49.47 21 99 | |

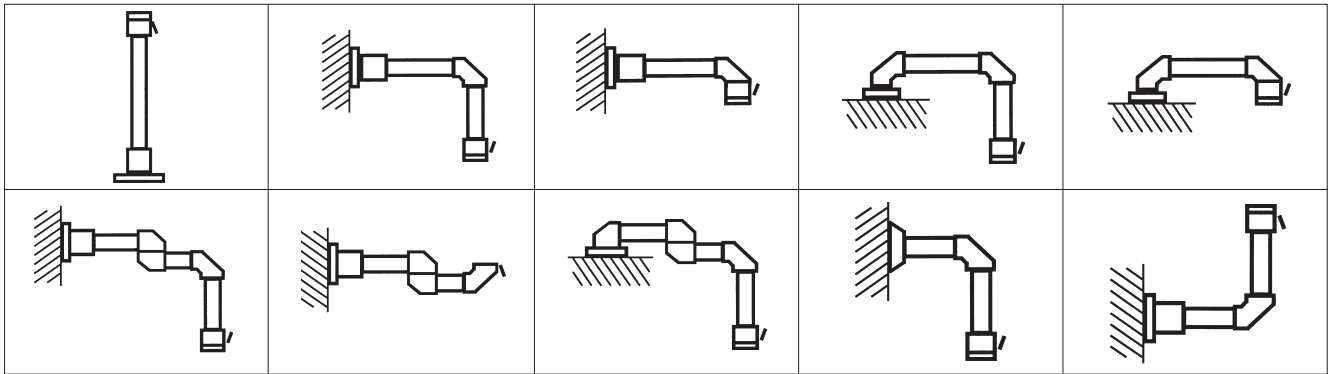


Load diagram



Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!). Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing. The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.

System structure

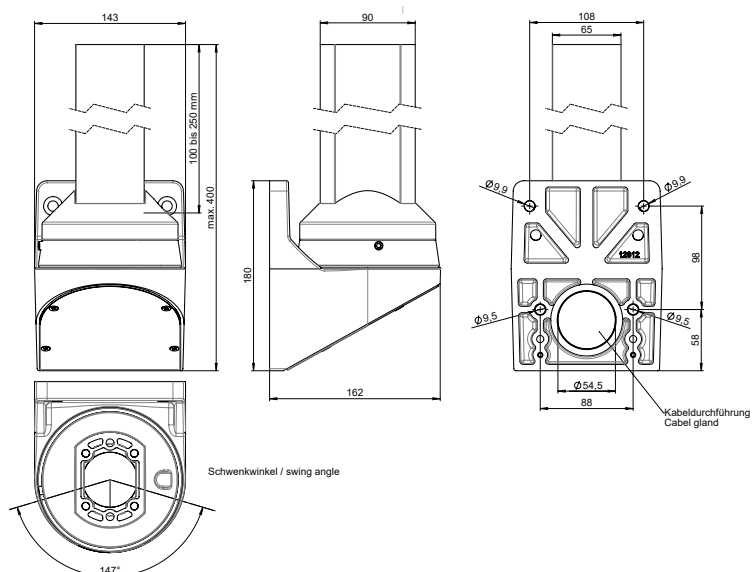


Komponenten

Vertical wall hinge



| Order No. | Execution |
|-------------|-----------------------------|
| 49.47 70 30 | GTN II, vertical wall hinge |

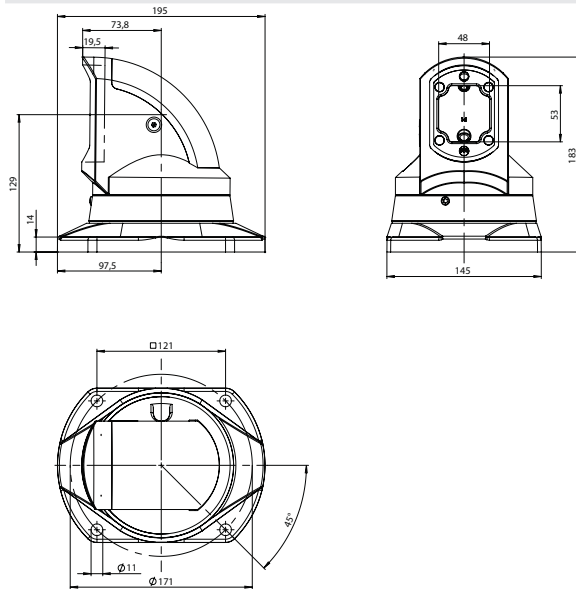


Components

Top-mounted joint



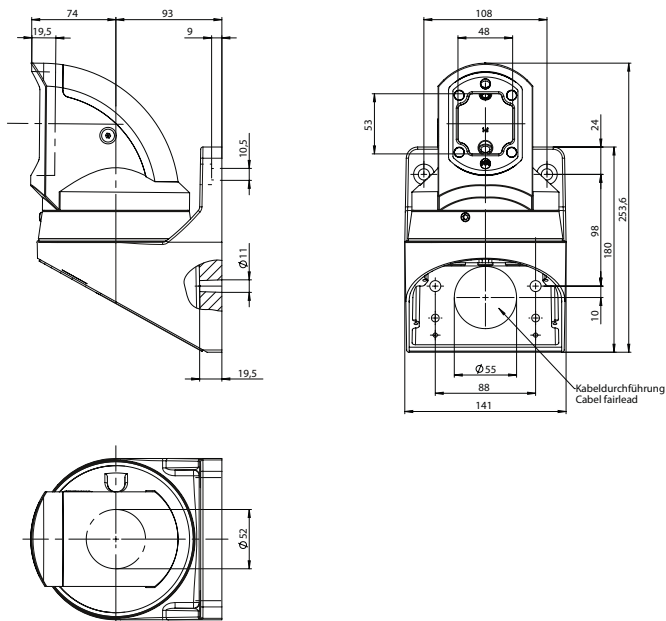
| Order No. | Execution |
|--------------------|---|
| 49.47 66 00 | GTN II, diecast aluminium, swivelling range 310°. Lockable with adjustment screw. |
| 49.47 66 01 | GTN II light, diecast aluminium, swivelling range 310° |



Wall hinge



| Order No. | Execution |
|--------------------|---|
| 49.47 70 00 | GTN II, diecast aluminium, swivelling range 230°. Lockable with adjustment screw. |
| 49.47 70 01 | GTN II light, diecast aluminium, swivelling range 230°. Lockable with adjustment screw. |
| 49.47 70 20 | GTN II hanging, diecast aluminium, swivelling range 230°. Lockable with adjustment screw. |



GTN II

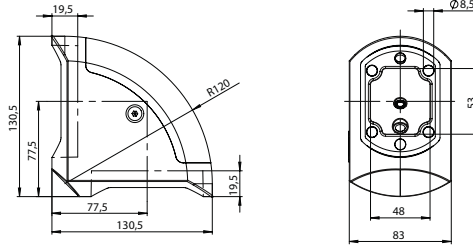
Components

Angle



Order No. Execution

49.47 71 00 Diecast aluminium, angle 90°

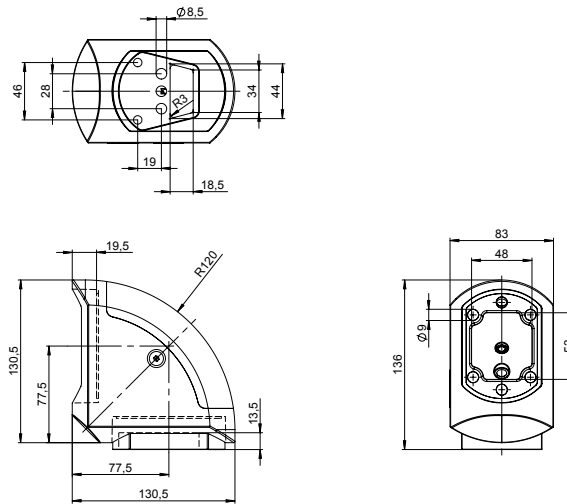


Angle GTN II / GTK electronic

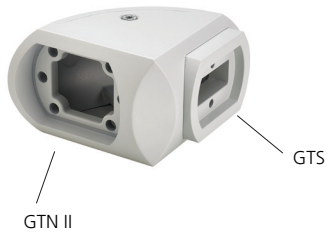


Order No. Execution

49.47 71 45 For combination GTN II and GTK electronic

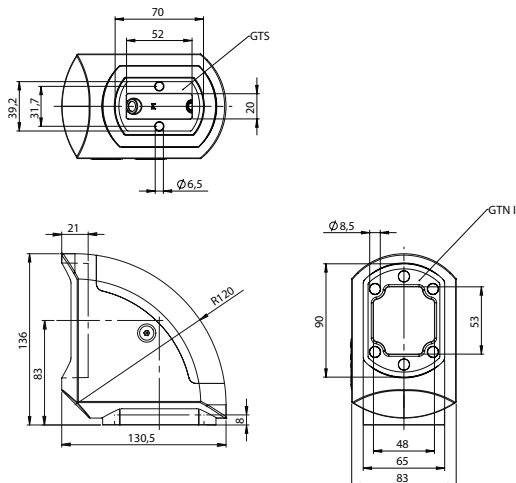


Angle GTN II / GTS



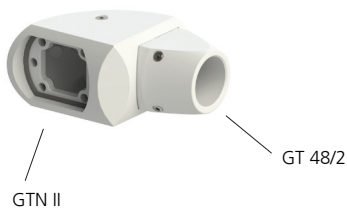
Order No. Execution

49.47 71 44 For combination GTN II and GTS

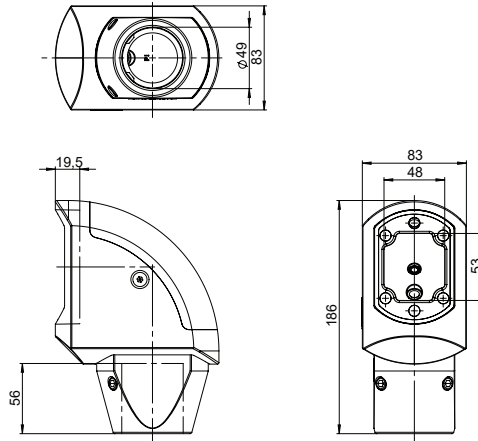


Components

Angle GTN II / GT 48/2



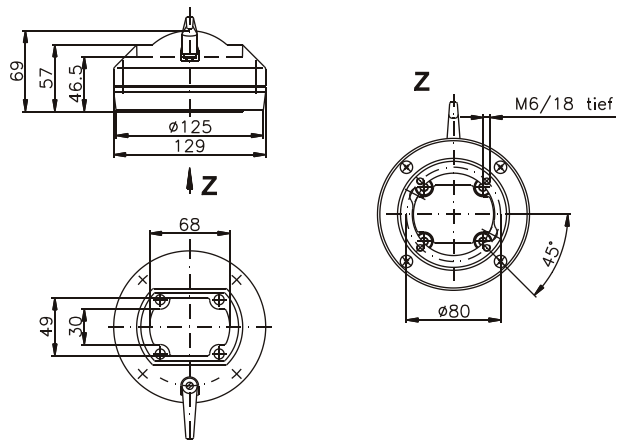
| Order No. | Execution |
|--------------------|--|
| 49.47 71 49 | For combination GTN II and $\varnothing 48\text{mm}$ round tube system |



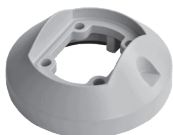
Coupling



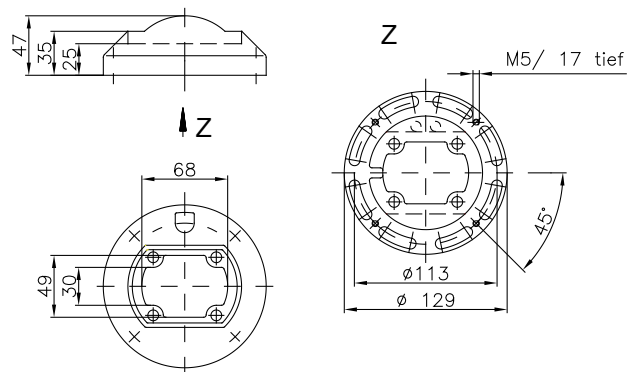
| Order No. | Execution |
|--------------------|---|
| 49.47 73 00 | Diecast aluminium, swivelling range 330°. Lockable with clamping lever. |



Coupling fixed



| Order No. | Execution |
|--------------------|----------------------------------|
| 49.47 73 03 | Diecast aluminium, fixed version |



GTN II

Components

Angle coupling

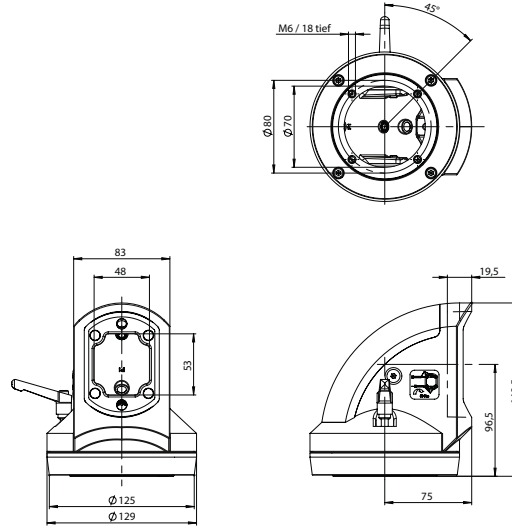


Order No.

Execution

49.47 75 00

Diecast aluminium, swivelling range 320°. Lockable with clamping lever.



Coupling GTN II-PRO

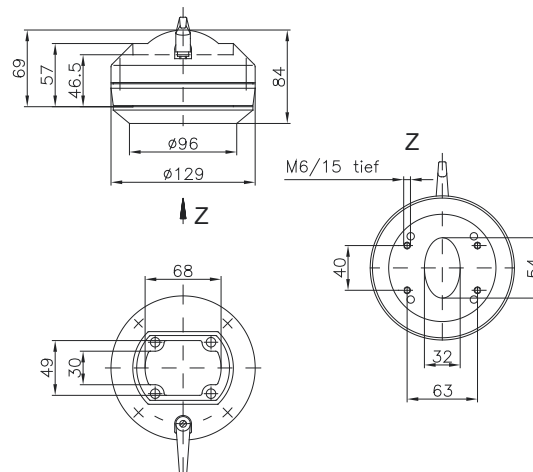


Order No.

Execution

49.47 73 02

For direct connecting of Siemens Pro command units
diecast aluminium, swivelling range 330°. Lockable with clamping lever.



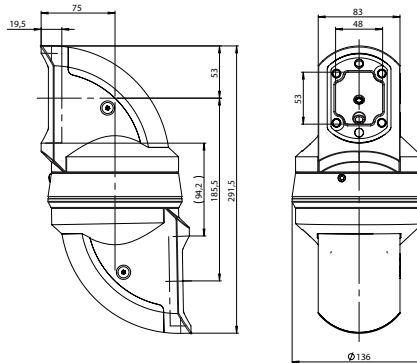
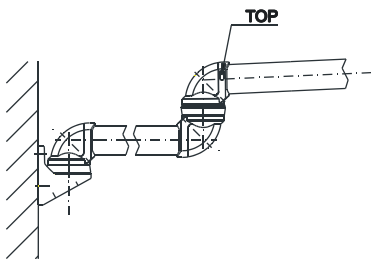
Components

Intermediate joint

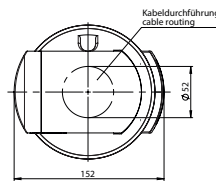
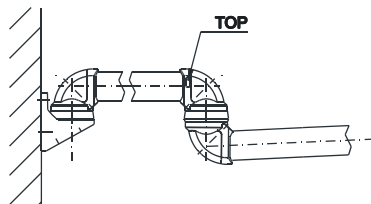


| Order No. | Execution |
|--------------------|---|
| 49.47 67 00 | GTN II „Z“, diecast aluminium, swivelling range 310°. Lockable with adjustment screw. |
| 49.47 67 01 | GTN II „Z“ light, diecast aluminium, swivelling range 310°. Lockable with adjustment screw. |
| 49.47 67 02 | GTN II „S“, diecast aluminium, swivelling range 310°. Lockable with adjustment screw. |
| 49.47 67 03 | GTN II „S“ light, diecast aluminium, swivelling range 310°. Lockable with adjustment screw. |

Intermediate joint S-Type



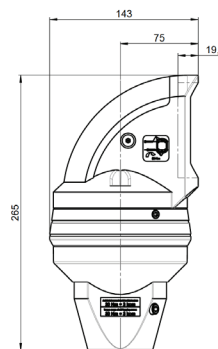
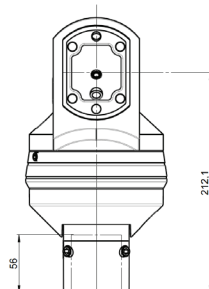
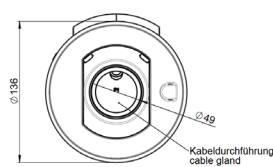
Intermediate joint Z-Type



Angle coupling



| Order No. | Execution |
|--------------------|--------------------------------|
| 49.47 75 49 | GTN II, Angle Coupling GT 48/2 |



GTN II

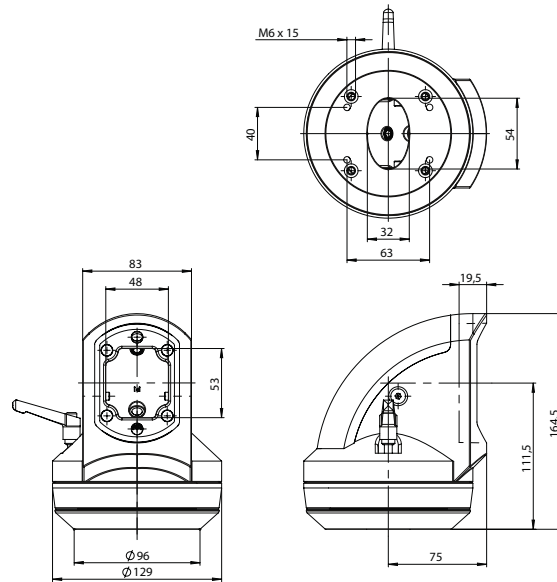
Components

Angle coupling GTN II-PRO

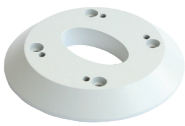


Order No. Execution

49.47 75 02 for direct connecting of Siemens Pro command units
Cast aluminium, Swivelling range 320°. Lockable with clamping lever.

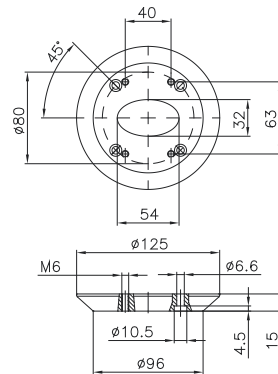


Adapter plate GTN II-PRO



Order No. Execution

49.47 00 01 for connecting GTN II elements with Siemens Pro command units
(not relevant for coupling GTN II Pro and angle coupling GTN II Pro)

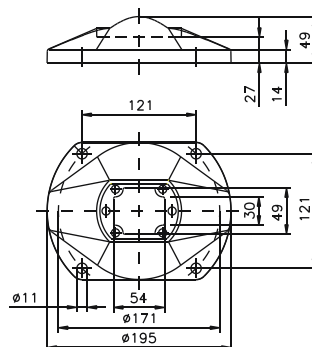


Foot stand fixed



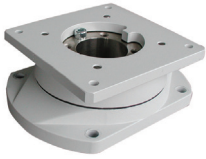
Order No. Execution

49.47 72 00 Diecast aluminium, fixed version, for ground mounting or wall mounting



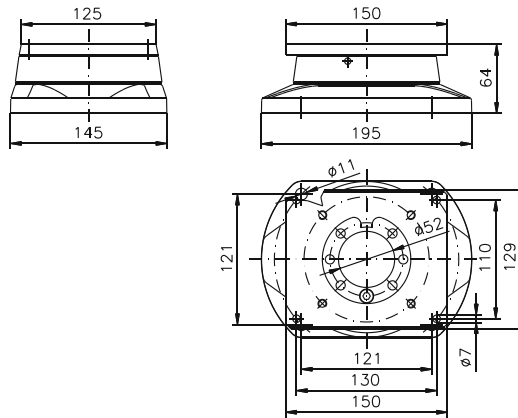
Components

Foot stand turnable with adapter plate

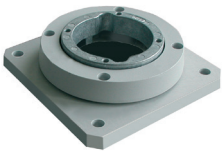


Order No. Execution

49.47 72 20 Diecast aluminium with adjustable stop position between machine and control panel for the combination of directly with commander, **not with profile**

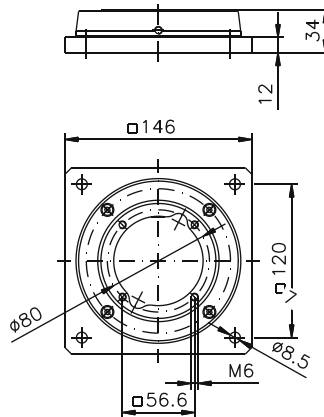


Foot stand turnable



Order No. Execution

49.47 72 21 Diecast aluminium with adjustable stop position between machine and control panel for the combination of directly with commander, **not with profile**

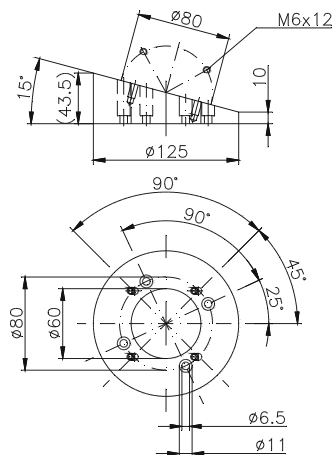


Console flange 15°



Order No. Execution

49.47 76 00 Aluminium flange with 15° inclination



GTN II

Components

Column

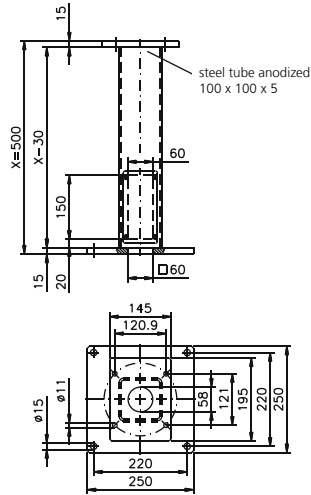


Order No.

Execution

49.47 00 04

Steel, painted, length individually up to 2 m, including adapter plate for GTN II top mounted joint, at bottom side flange outlet (specify total length)



Inclining adapter

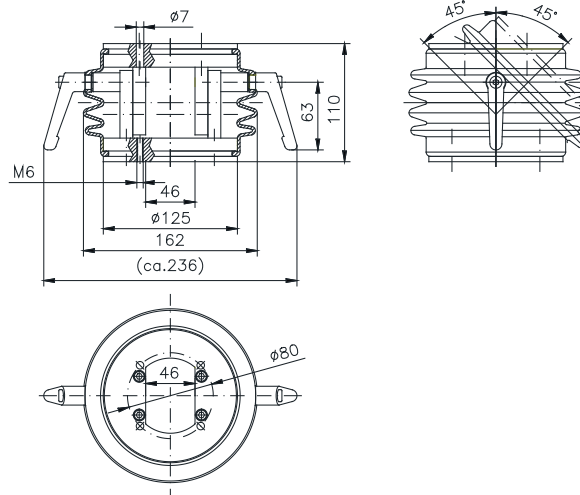


Order No.

Execution

49.47 80 00

Diecast aluminium part with bellows and seal, inclination can be adjusted to any angle between 0° and 45° .



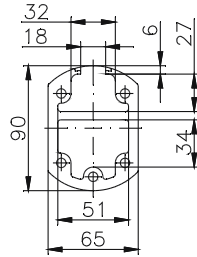
Components

Profile

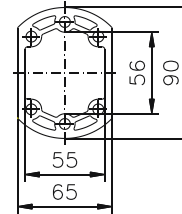


Order No. Execution

s. page 101 Extruded aluminium sheath, open version with integrated cable channel with black rubber cover

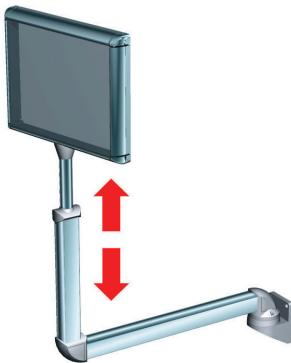


Profile open



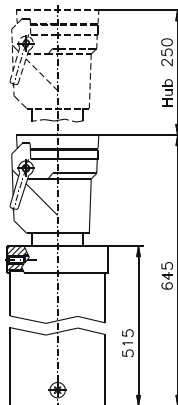
Profile closed

Height adjustment unit GTN II / GT 48/2



Order No. Execution

49.47 30 01 Height adjustment „tube in tube“ consisting of: combination GTN II / GT 48/2 tube incl. coupling GT 48/2
 height adjustment area: 250 mm
 length of tube GTN II: 515 mm; total length 645 - 895 mm from lower edge GTN II-tube
 max. loading: 25 kg
 free cable entry: 40 mm
 other length GTN II-tube on request



Components

Height adjustment, slide hanging

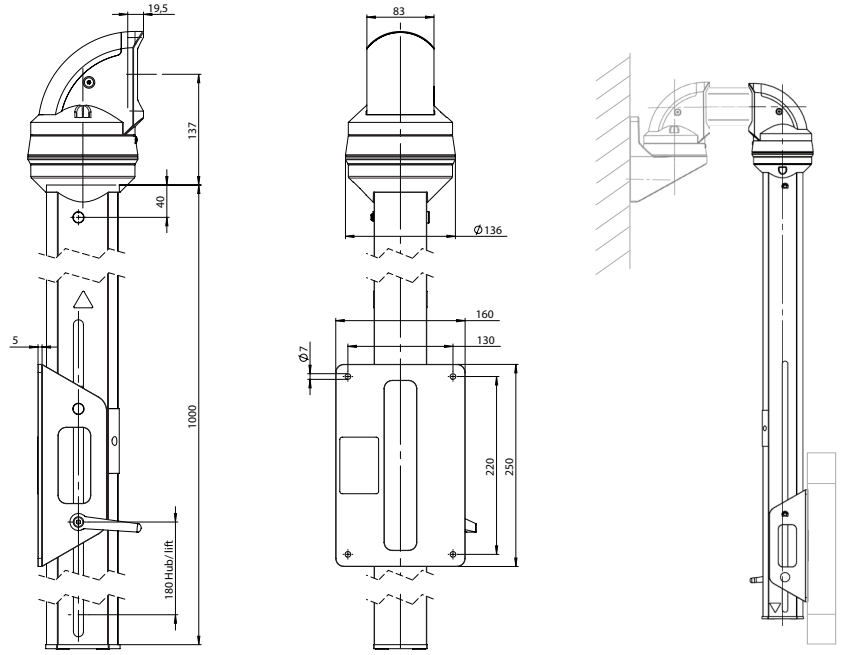


Order No.

Execution

49,47 30 02

Consisting of tube GTN II open, slide and swivel joint, slide fixing on rear side of the commander system, adjustment by knob
 height adjustment area: 200 mm (damped by gas spring)
 total length of tube: 730 mm
 max. loading: 30 kg
 swivel range: 330°



Height adjustment, slide standing

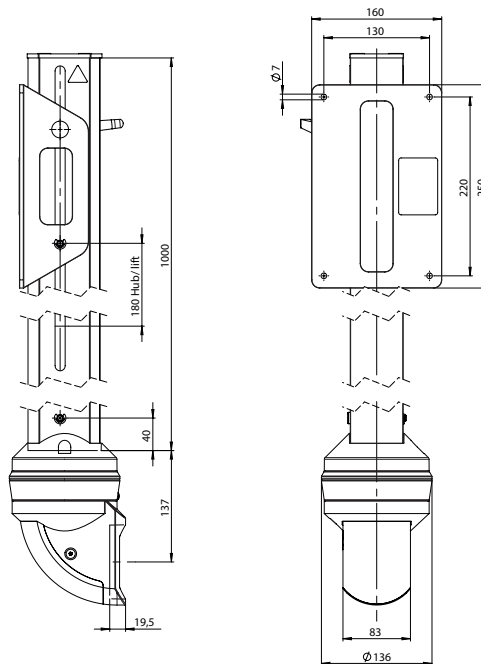


Order No.

Execution

49,47 30 03

Consisting of tube GTN II open, slide and swivel joint, slide fixing on rear side of the commander system, adjustment by knob
 height adjustment area: 200 mm (damped by gas spring)
 total length of tube: 730 mm
 max. loading: 30 kg
 swivel range: 330°



Components

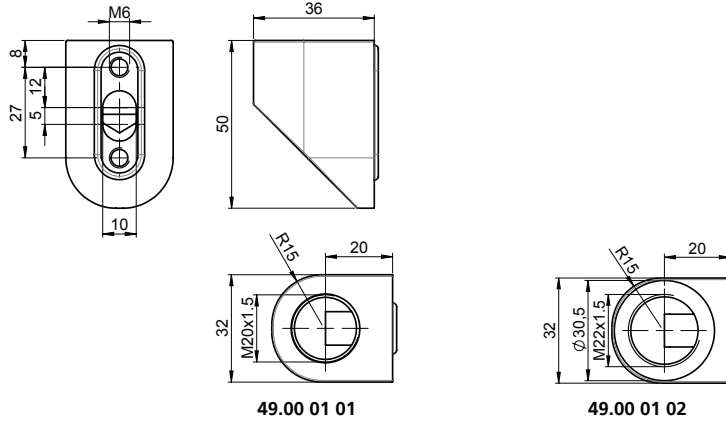
Base connection element for suspension systems, command units and cabinets



Order No. Execution

49.00 01 01 Signal light adaptation with thread M20x1.5 mm

49.00 01 02 Signal light adaptation with thread M22x1.5 mm



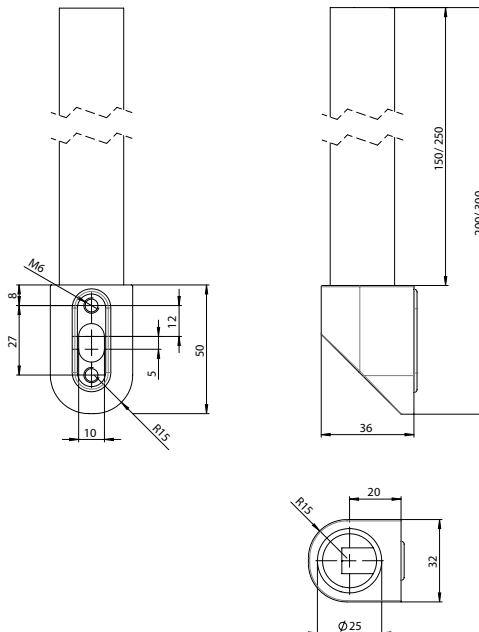
Base connection element for suspension systems, command units and cabinets

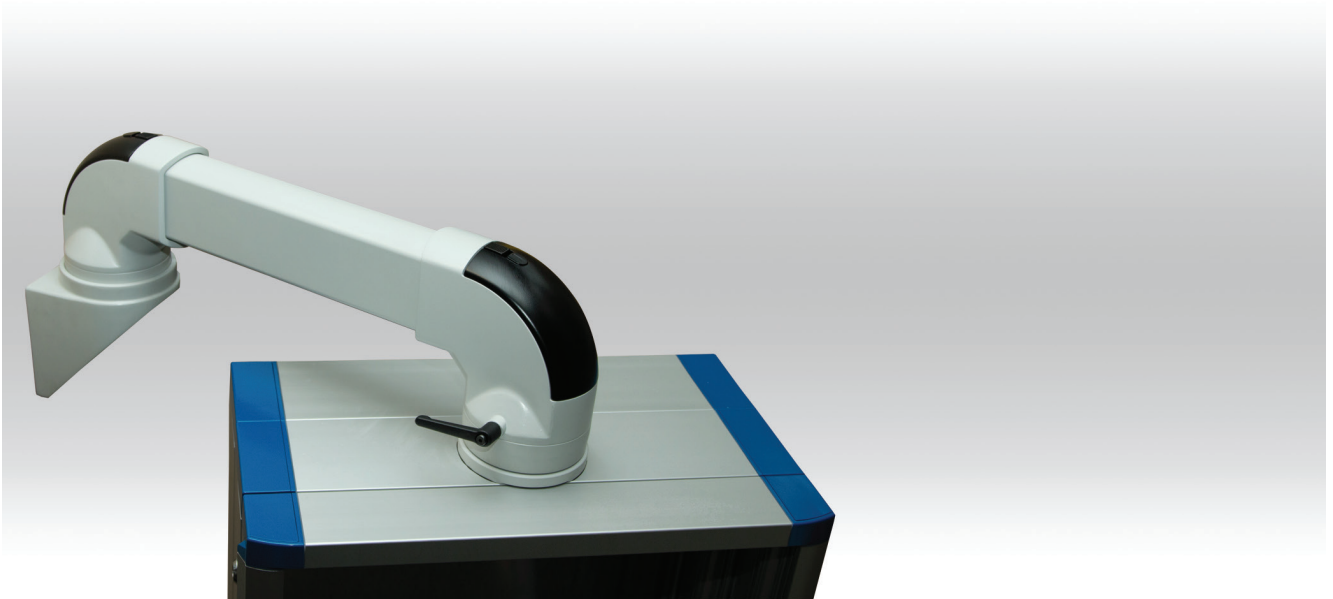


Order No. Execution

49.00 01 03 Signal light adaption with tube \varnothing 25 mm, length = 250 mm

49.00 01 04 Signal light adaption with tube \varnothing 25 mm, length = 150 mm





- + Aluminium profile suspension system for heavy loads
- + Complete product family GTS – GTN II – GTL product family
- + Can be combined with GTN II suspension system / height adjustment system GTV and control enclosures
- + Optional adjustment for horizontal alignment of the profile
- + Maximum static load 125 kg

Included in delivery

System components with fixing material and seals

Technical data

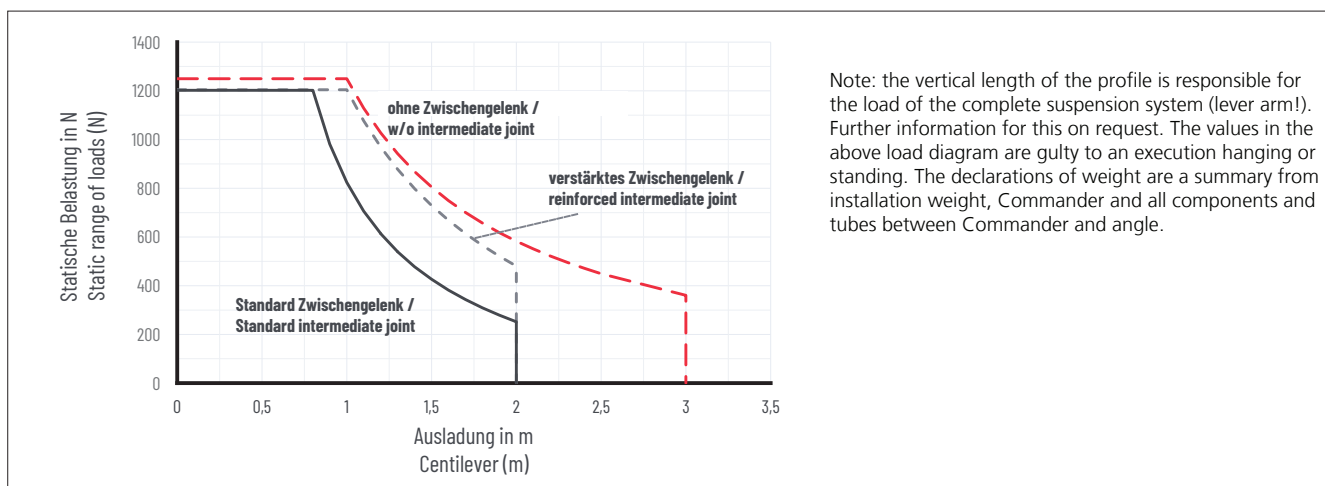
| | |
|---------------------------|---|
| Material | Connecting tube: DIN EN 573, EN AW –AlMgSi Components: DIN EN 1706, EN AC-AlSi 12 (Fe) |
| Painting | Powder coating |
| Colour | Tube and components in RAL 7035, light grey |
| Ingress protection | IP 54 to EN 60529 |
| Free cable passage | Tube and components Ø 70 mm |

Product range

| Type | Order No. | Weight (g) |
|--|--------------------|------------|
| Top-mounted joint | 49.62 66 00 | 8180 |
| Wall hinge | 49.62 70 00 | 10000 |
| Angle | 49.62 71 00 | 3120 |
| Angle GTL / GTN II | 49.62 71 47 | 4070 |
| Foot stand | 49.62 72 00 | 2770 |
| Coupling | 49.62 73 00 | 4760 |
| Angle coupling | 49.62 75 00 | 6040 |
| Intermediate joint | 49.62 67 00 | 9450 |
| Type | Order No. | Weight (g) |
| Aluminium profile closed RAL 7035 | | |
| Standard length 0,5 m | 49.62 20 01 | 4510 |
| Standard length 1 m | 49.62 20 02 | 9040 |
| Standard length 2 m | 49.62 20 03 | 18000 |
| Standard length 3 m | 49.62 20 04 | 27000 |
| Variable length (please specify) | 49.62 20 99 | |
| Aluminium profile closed anodized | | |
| Standard length 0,5 m | 49.62 21 01 | 4510 |
| Standard length 1 m | 49.62 21 02 | 9030 |
| Standard length 2 m | 49.62 21 03 | 18000 |
| Standard length 3 m | 49.62 21 04 | 27000 |
| Variable length (please specify) | 49.62 21 99 | |
| Aluminium profile closed RAL 7035 for coupling GTL* | | |
| Standard length 0,5 m | 49.62 20 11 | 4500 |
| Standard length 1 m | 49.62 20 12 | 9030 |
| Variable length (please specify) | 49.62 20 98 | |
| Aluminium profile closed anodized for coupling GTL* | | |
| Standard length 0,5 m | 49.62 21 11 | 4500 |
| Standard length 1 m | 49.62 21 12 | 9000 |
| Variable length (please specify) | 49.62 21 98 | |

* Note: In case of hanging version these types are to be selected in connection with the coupling.

Load diagram

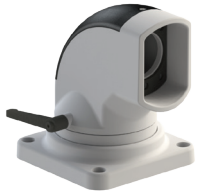


Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!). Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing. The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.



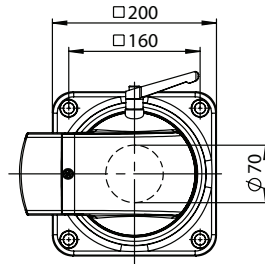
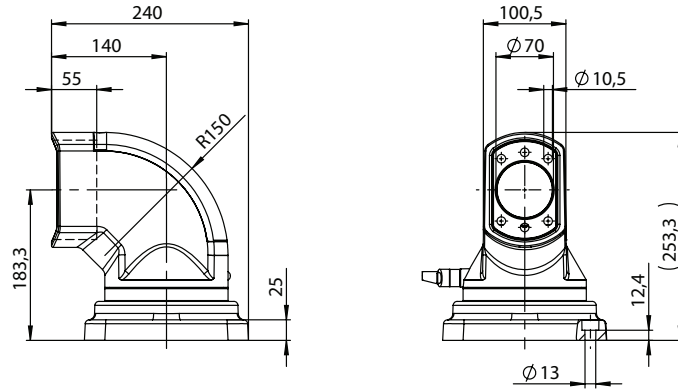
Components

Top-mounted joint



Order No. Execution

49.62 66 00 Diecast aluminium with cover cap plastic
Swivelling range 310°.
Lockable with clamping lever.

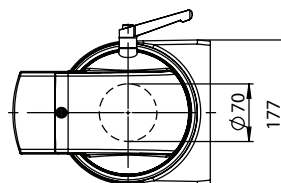
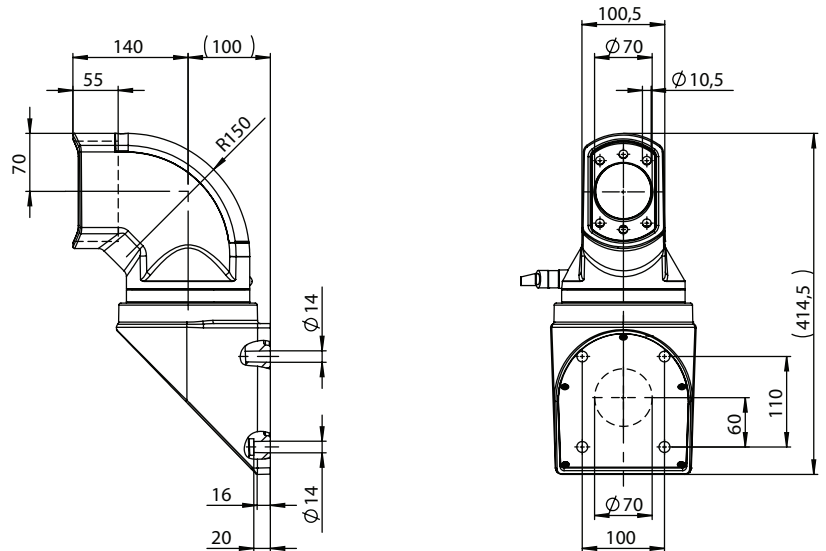


Wall hinge



Order No. Execution

49.62 70 00 Diecast aluminium with cover cap plastic
Swivelling range 310°.
Lockable with clamping lever.

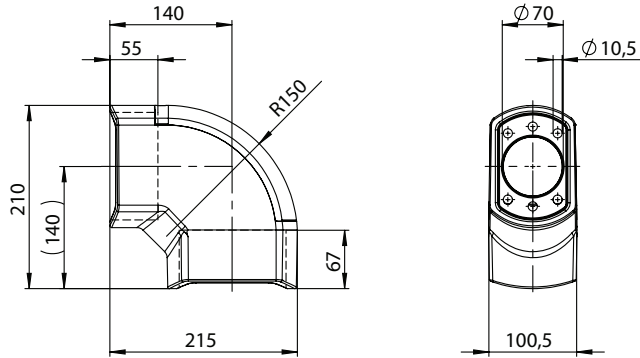


Components

Angle



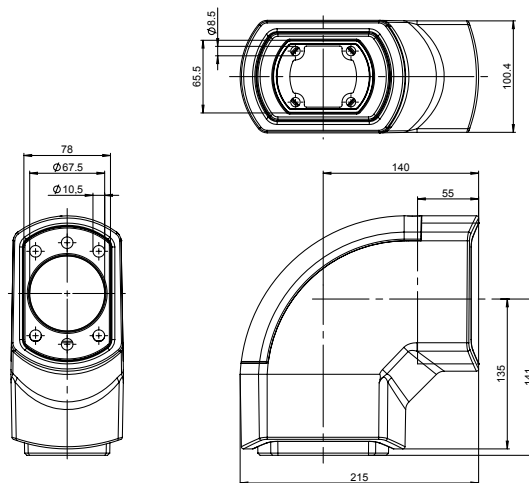
| Order No. | Execution |
|--------------------|---|
| 49.62 71 00 | Diecast aluminium with cover cap plastic 90° angle |



Angle GTL / GTN II



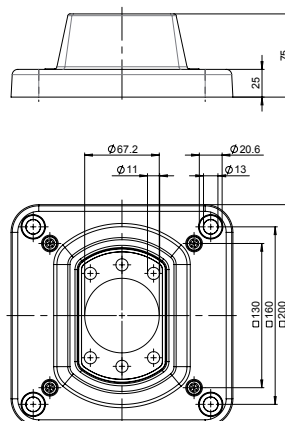
| Order No. | Execution |
|--------------------|--------------------------------|
| 49.62 71 47 | for combination GTL and GTN II |



Foot stand



| Order No. | Execution |
|--------------------|---|
| 49.62 72 00 | Diecast aluminium, fixed version, for floor mounting or wall mounting with rigid outlet incl. 4 Einstellschrauben zur horizontalen Ausrichtung |



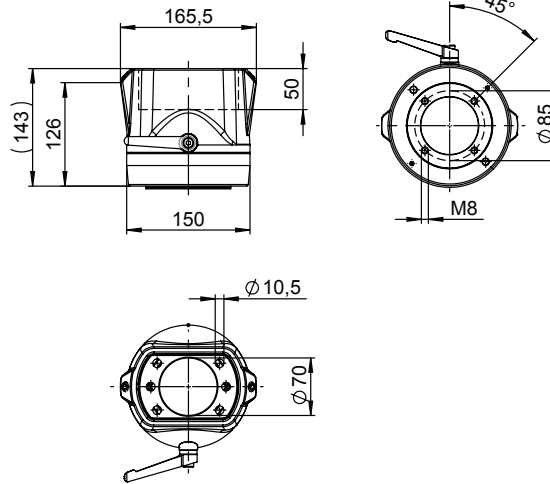
Components

Coupling



Order No. Execution

49.62 73 00 Diecast aluminium, Swivelling range 310°. Lockable with clamping lever. Fastening the profile from the outside.

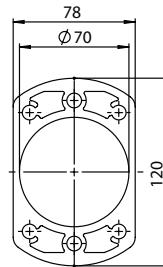


Profile



Order No. Execution

s. page 115 Extruded aluminium profile

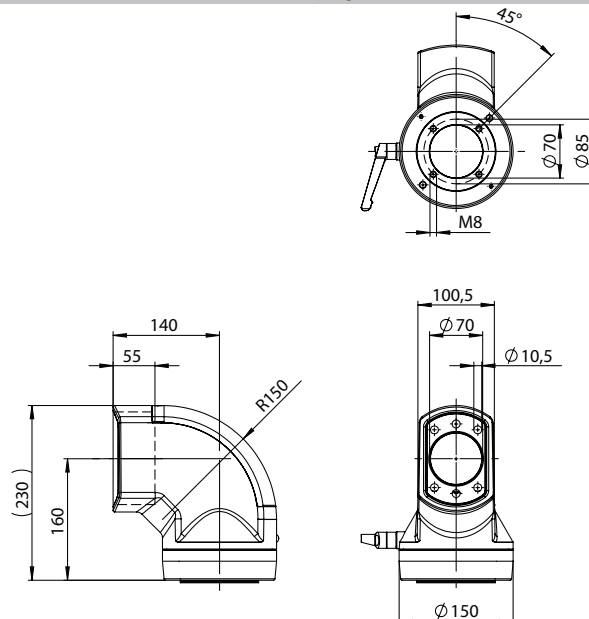


Angle coupling



Order No. Execution

49.62 75 00 Diecast aluminium with cover cap plastic 90° angle with swivelling range 310°. Lockable with clamping lever.



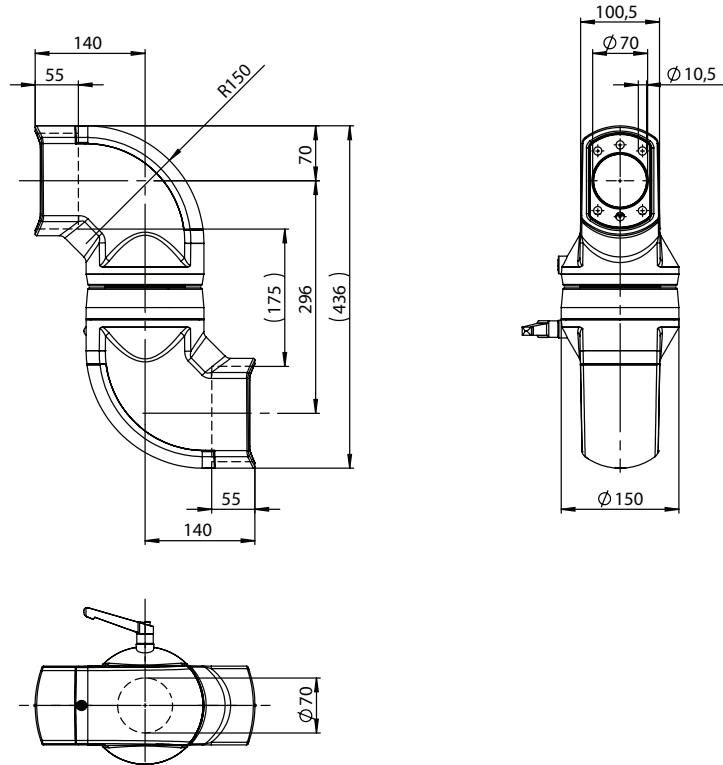
Components

Intermediate joint



Order No. Execution

49.62 67 00 Diecast aluminium with cover cap plastic
Swivelling range 310°. Lockable with clamping lever.



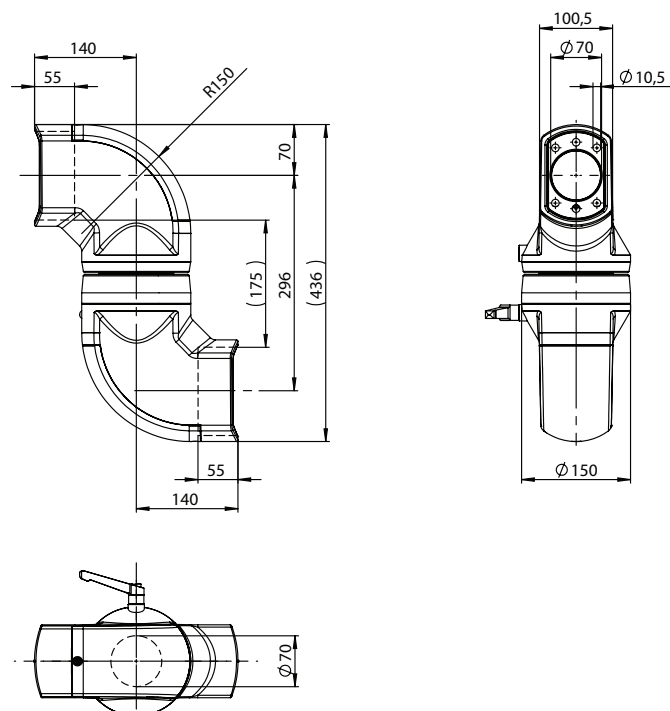
Intermediate joint reinforced



Order No. Execution

49.62 67 01 Diecast aluminium with cover cap plastic
Swivelling range 310°
Lockable with clamping lever.

Note: This intermediate joint must be used with the GTV 2.0 assembly.



Flat Panel Adapter



- + Connection for Panel PCs and flat control enclosures
- + Slim design
- + Protection class IP 54 with GTS/ IP 65 with GTH easy coupling
- + Comfortable access and generous assembly opening
- + Optional with angle adjustment +/- 20°

Included in delivery

Connection compartment with lid and double ward 3mm lock. GTS or GTH easy coupling inclusive.

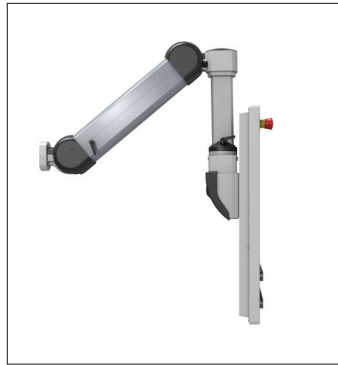
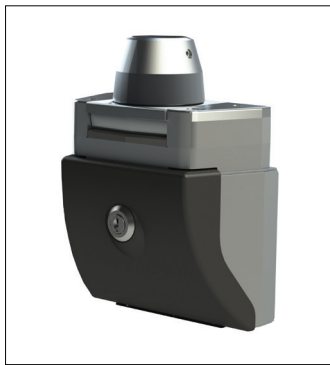
Optional with angle adjustment.

Technical data

| | |
|---------------------------|--|
| Material | Connection compartment: stainless steel 304 Angle adjustment: stainless steel 304 Lid: abs |
| Surface | Connection compartment: RAL 7035 Angle adjustment: RAL 7035 Lid: RAL 7021 |
| Seal | CR and/or NBR |
| Ingress protection | With GTS coupling: IP 54 With GTH easy coupling: IP 65 |
| Free cable passage | GTS: 53 x 19 mm GTH easy: ø 41 mm |

Product range

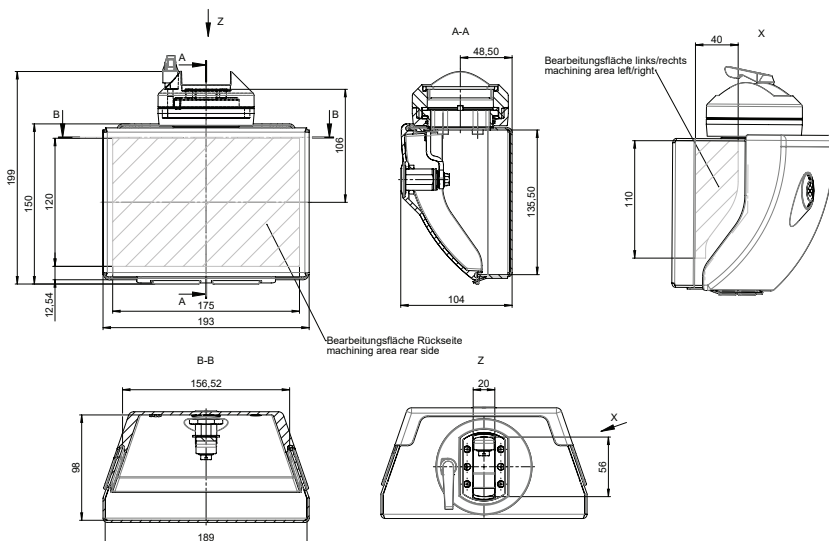
| Order No. | Dimensions (mm) W x H x D | Variation | Cutout | Weight (kg) |
|-------------|------------------------------|--|----------|-------------|
| 50.10 20 10 | 193 x 199 x 104 | Flat Panel Adapter GTS | VESA 75 | 1.89 |
| 50.10 20 20 | 193 x 199 x 104 | Flat Panel Adapter GTS | VESA 100 | 1.81 |
| 50.10 20 99 | 193 x 199 x 104 | Flat Panel Adapter GTS | special | o.req. |
| 50.10 30 10 | 193 x 204 x 104 | Flat Panel Adapter GTH 48 easy | VESA 75 | 2.39 |
| 50.10 30 20 | 193 x 204 x 104 | Flat Panel Adapter GTH 48 easy | VESA 100 | 2.31 |
| 50.10 30 99 | 193 x 204 x 104 | Flat Panel Adapter GTH 48 easy | special | o.req. |
| 50.20 20 10 | 193 x 251 x 104 | Flat Panel Adapter GTS with angle adjustment | VESA 75 | 5.26 |
| 50.20 20 20 | 193 x 251 x 104 | Flat Panel Adapter GTS with angle adjustment | VESA 100 | 5.18 |
| 50.20 20 99 | 193 x 251 x 104 | Flat Panel Adapter GTS with angle adjustment | special | o.req. |
| 50.20 30 10 | 193 x 258 x 104 | Flat Panel Adapter GTH 48 easy with angle adjustment | VESA 75 | 5.76 |
| 50.20 30 20 | 193 x 258 x 104 | Flat Panel Adapter GTH 48 easy with angle adjustment | VESA 100 | 5.68 |
| 50.20 30 99 | 193 x 258 x 104 | Flat Panel Adapter GTH 48 easy with angle adjustment | special | o.req. |
| 50.30 40 10 | 193 x 214 x 149 | Flat Panel Adapter GTN II | VESA 75 | 4.11 |
| 50.30 40 20 | 193 x 214 x 149 | Flat Panel Adapter GTN II | VESA 100 | 4.03 |
| 50.30 40 99 | 193 x 214 x 149 | Flat Panel Adapter GTN II | special | o.req. |



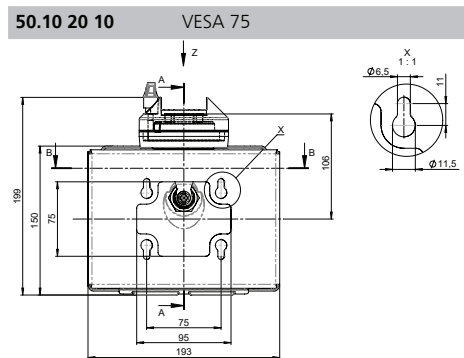
Technical Details

Flat Panel Adapter GTS

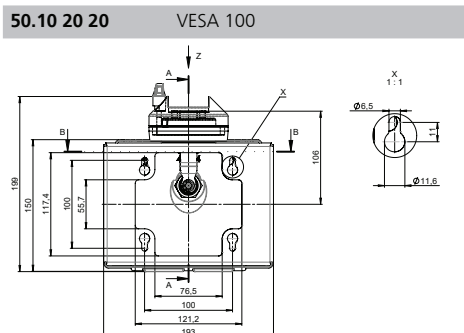
| Order No. | Cutout |
|-------------|----------|
| 50.10 20 10 | VESA 75 |
| 50.10 20 20 | VESA 100 |
| 50.10 20 99 | Special |



Cutout



Cutout



Flat Panel Adapter

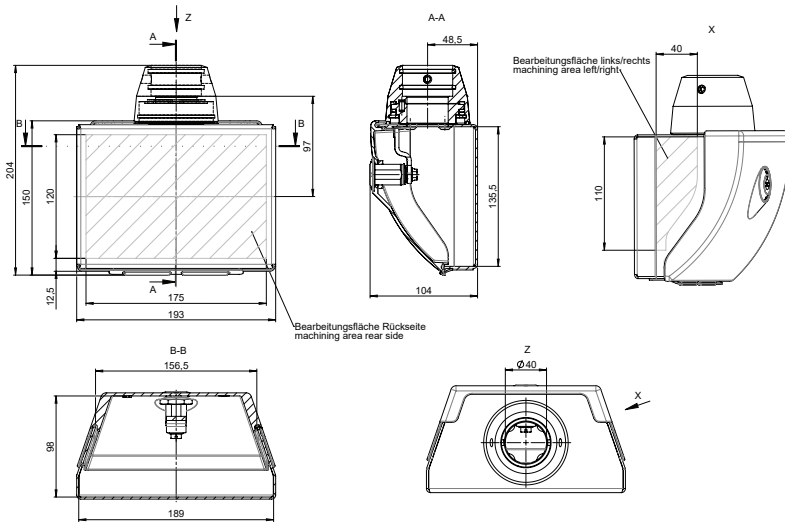
Flat Panel Adapter GTH 48 easy

Order No. Cutout

50.10 30 10 VESA 75

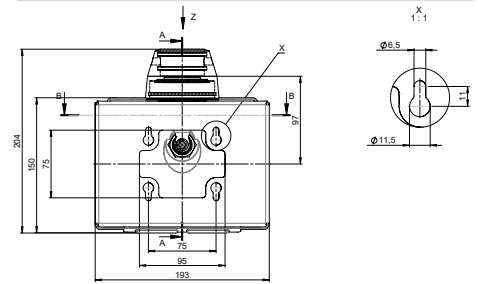
50.10 30 20 VESA 100

50.10 30 99 Special



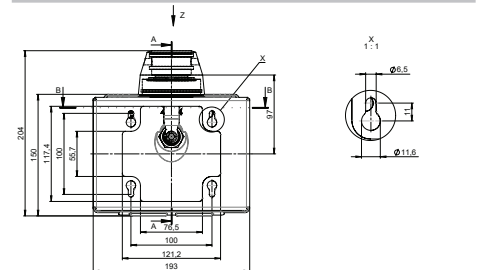
Cutout

50.10 30 10 VESA 75



Cutout

50.10 30 20 VESA 100



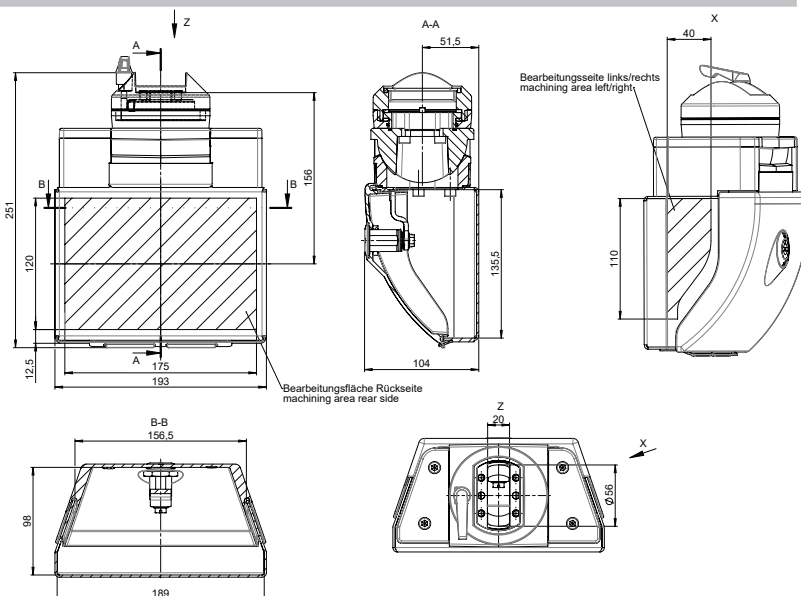
Flat Panel Adapter GTS with angle adjustment

Order No. Cutout

50.20 20 10 VESA 75

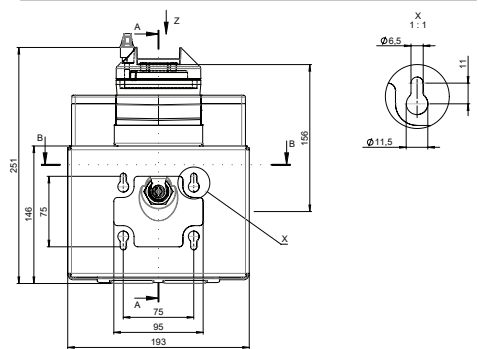
50.20 20 20 VESA 100

50.20 20 99 Special



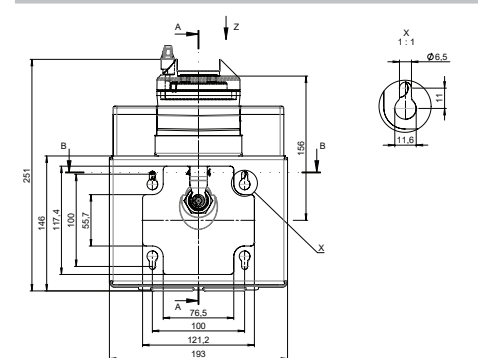
Cutout

50.20 20 10 VESA 75



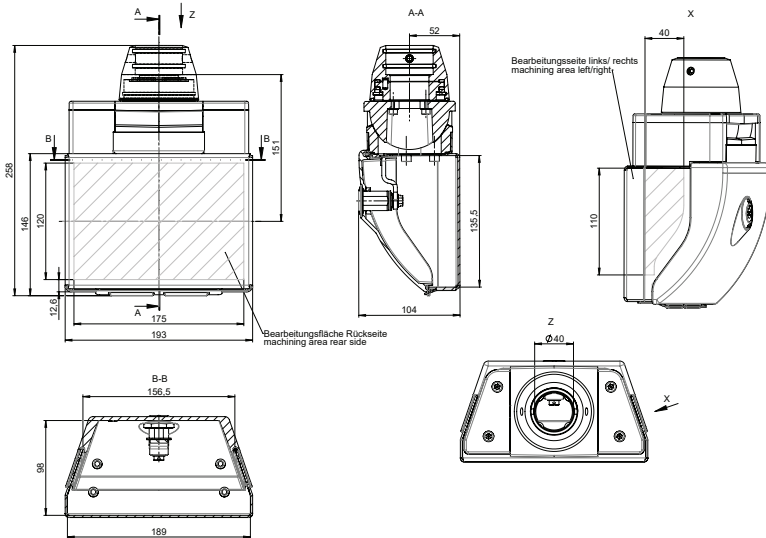
Cutout

50.20 20 20 VESA 100



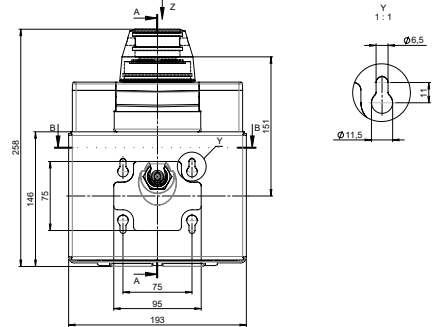
Flat Panel Adapter GTH 48 easy with angle adjustment

| Order No. | Cutout |
|--------------------|----------|
| 50.20 30 10 | VESA 75 |
| 50.20 30 20 | VESA 100 |
| 50.20 30 99 | Special |



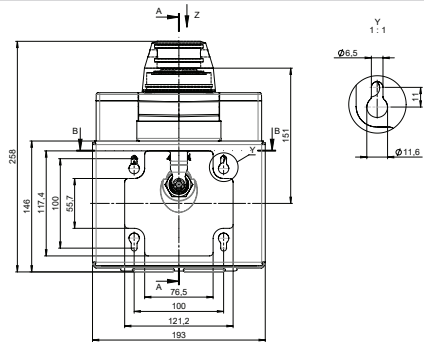
Cutout

| | |
|--------------------|---------|
| 50.10 30 10 | VESA 75 |
|--------------------|---------|



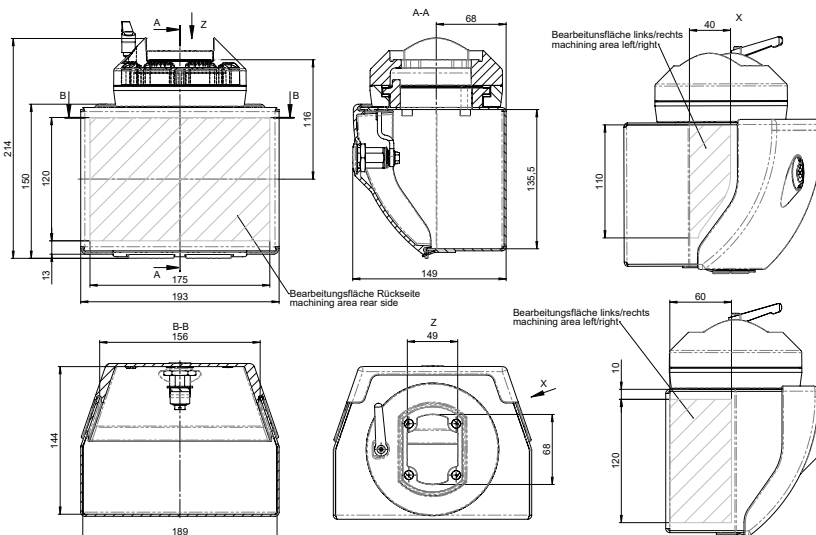
Cutout

| | |
|--------------------|----------|
| 50.10 30 20 | VESA 100 |
|--------------------|----------|



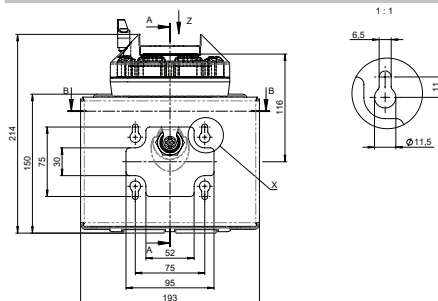
Flat Panel Adapter GTN II

| Order No. | Cutout |
|--------------------|----------|
| 50.30 40 10 | VESA 75 |
| 50.30 40 20 | VESA 100 |
| 50.30 40 99 | Special |



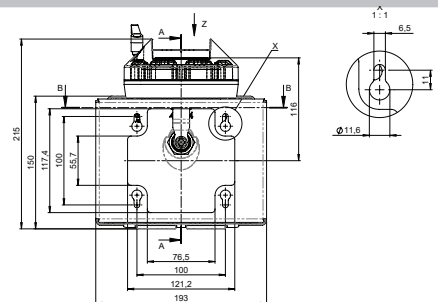
Cutout

| | |
|--------------------|---------|
| 50.20 20 10 | VESA 75 |
|--------------------|---------|



Cutout

| | |
|--------------------|----------|
| 50.20 20 20 | VESA 100 |
|--------------------|----------|



GTV light



- + Load range 5 - 34 kg
- + 3 strokes: 400 mm / 600 mm / 800 mm
- + Step less adjustment
- + Adjustable end stops and load ranges
- + Position lockable by clamping lever
- + Possible subsequent integration into existing GTN II system
- + Spacious and easily accessible cable channel
- + Safe cable routing away from mechanical components
- + For ergonomic workplace design
- + Machine side combinable with GTN II

Included in delivery

Height adjustment incl. fixing material (assembly components for a connection to the machine and to the control enclosure are not included).



Technical data

| | |
|--------------------|------------------------------|
| Load range | 5 – 34 kg |
| Ingress protection | IP 54 |
| Stroke | 400 / 600 / 800 mm |
| Weight | 3,5 kg (version with 400 mm) |
| Temperature range | up to appr. 45°C |
| Life time | 25.000 double strokes |

Product range

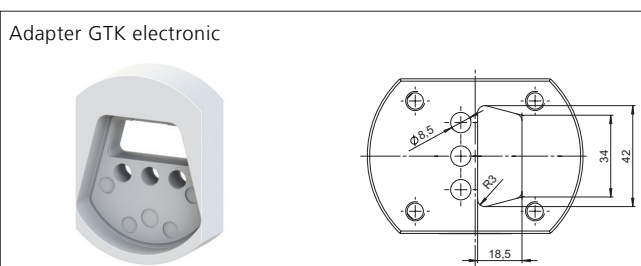
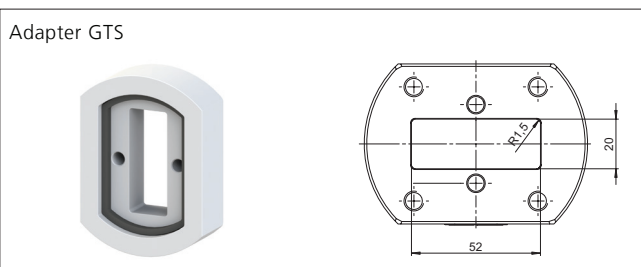
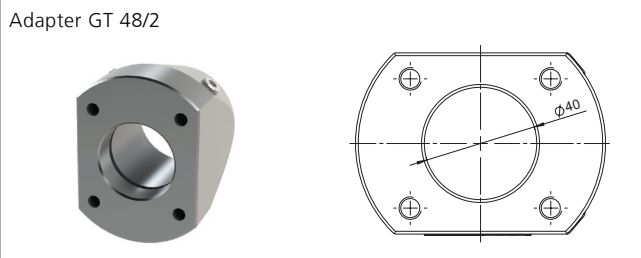
| Stroke = 400 mm | Order No. |
|---------------------------|--------------------|
| Load range 1 (5 - 10 kg) | 49.84 20 01 |
| Load range 2 (10 - 16 kg) | 49.84 20 02 |
| Load range 3 (16 - 25 kg) | 49.84 20 04 |
| Load range 4 (25 - 35 kg) | 49.84 20 05 |
| Stroke = 600 mm | |
| Load range 1 (5 - 10 kg) | 49.84 40 01 |
| Load range 2 (10 - 16 kg) | 49.84 40 02 |
| Load range 3 (16 - 25 kg) | 49.84 40 04 |
| Load range 4 (25 - 35 kg) | 49.84 40 05 |
| Stroke = 800 mm | |
| Load range 1 (5 - 7 kg) | 49.84 60 01 |
| Load range 2 (7 - 13 kg) | 49.84 60 02 |
| Load range 3 (13 - 21 kg) | 49.84 60 04 |

Accessories

| | |
|------------------------|--------------------|
| Adapter GTS | 49.84 10 01 |
| Adapter GT 48/2 | 49.84 10 02 |
| Adapter GTK electronic | 49.84 10 03 |

Note: encapsulated Panel PCs from Beckhoff and B & R (also adapter required) can be attached to 48 tube via the GT 48/2 adapter.

The adapters allow the attachments to be connected with other profile cross-section.

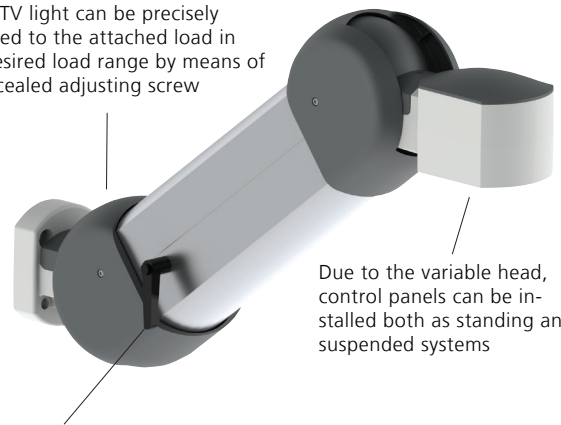


The load range is calculated by:

- weight of the command unit / command housing with installations
- possibly used coupling / inclination adapter, etc.
- vertical profile up to the head of the GTV light

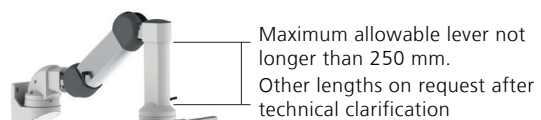
The load range is calculated for ambient temperature 20 °C. When using under strongly deviating temperature please contact us!

The GTV light can be precisely adjusted to the attached load in the desired load range by means of a concealed adjusting screw



Due to the variable head, control panels can be installed both as standing and suspended systems

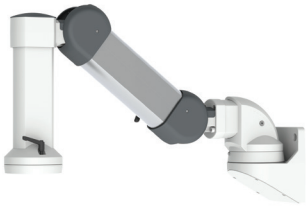
Brake is used for additional locking in the desired position



GTV light

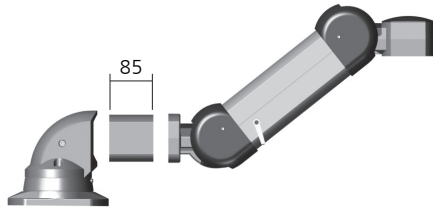
Technical details

Height adjustable suspension system, outlet hanging or upright

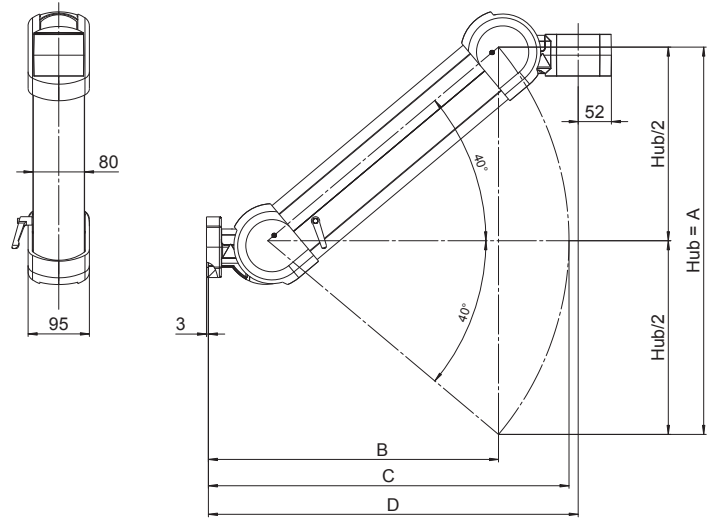


Note: The stroke of the GTV light can be steplessly limited both upwards and downwards in order to avoid collisions with possibly existing interference contours.

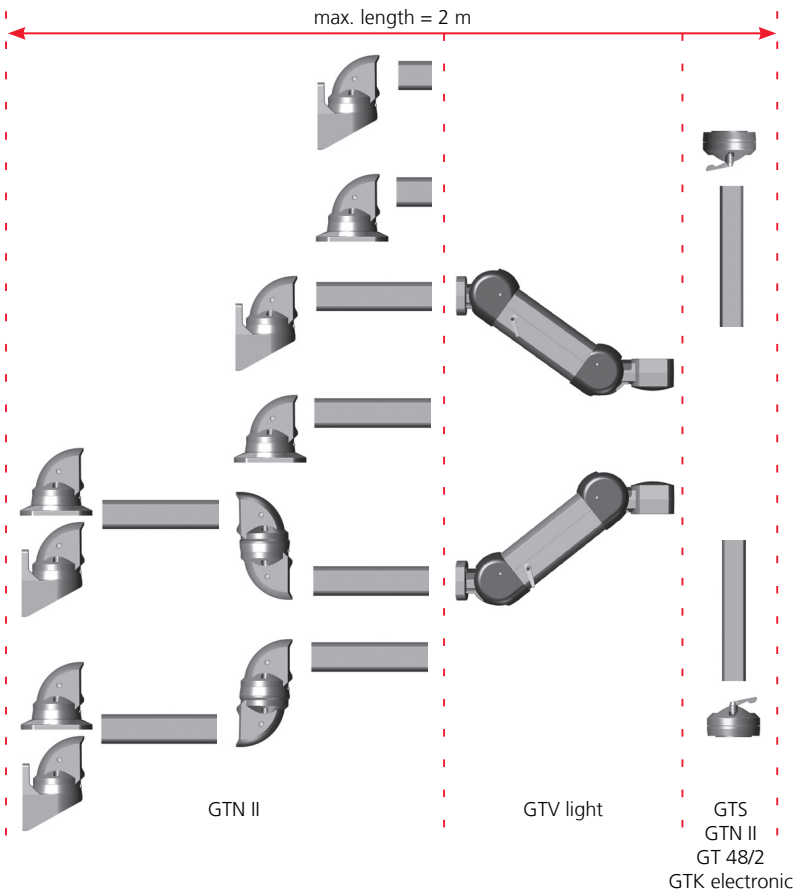
Minimum length between the joints (attachment joint, wall joint, intermediate joint) and GTV light = 85 mm



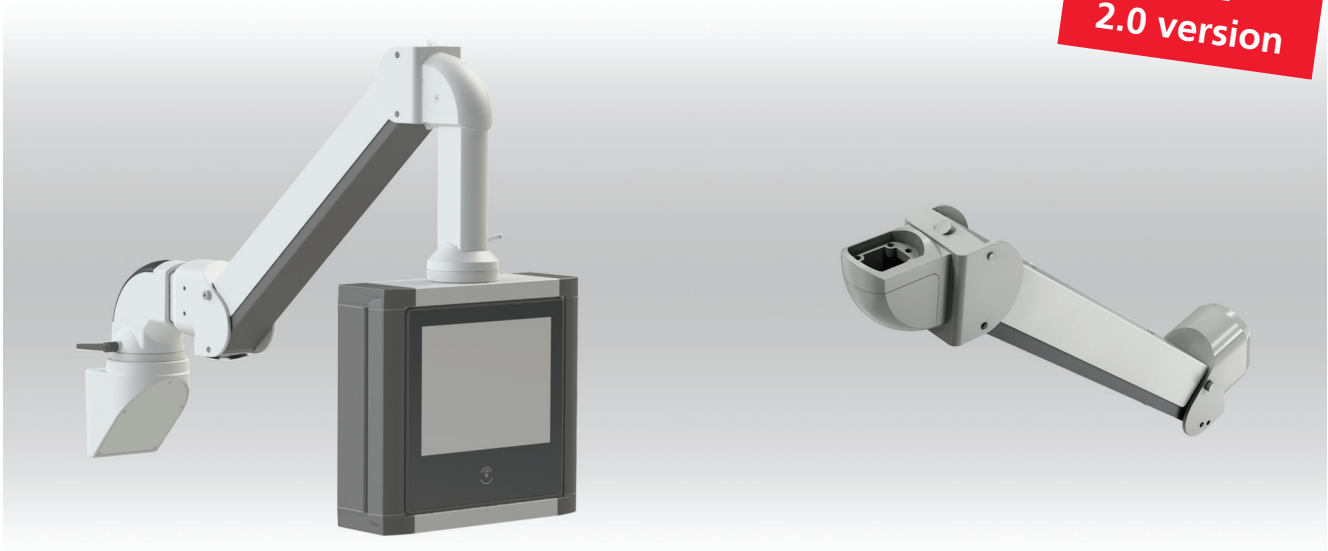
| A (stroke in mm) | B (mm) | C (mm) | D (mm) |
|------------------|--------|--------|--------|
| 400 | 330 | 403 | 545 |
| 600 | 450 | 559 | 573 |
| 800 | 568 | 692 | 714 |



Possible combinations



NEW
2.0 version



- + Load range from 20 to 60 kg
- + For making the workplace ergonomic
- + Can be combined on the machine side with the GTL suspension system
- + Can be combined on the operator side with GTN II / GT 48/2 / GTS
- + Freely positionable version
- + Adjustable binding
- + High torsional stiffness
- + Continuous potential equalisation
- + Stroke limitation every 5°

Included in delivery

Height adjustment incl. fixing material (assembly components for a connection to the machine and to the control enclosure are not included).

Technical data

| | |
|--------------------------|---|
| Material | Connecting plates: S235 Components: EN 1706 AC-4600DF Cable channel cover sheet: EN 573-3 AW-5754 H22 |
| Painting | Powder coating |
| Colour | Connecting plates: RAL 7016 Components: RAL 7035 Cable channel cover sheet: RAL 7035 |
| Load range | 20 - 60 kg |
| Life time | 25.000 double strokes |
| Temperature range | up to appr. 45 °C |



GTV 2.0

Product range

| | Order No. | Weight (g) |
|-------------------------------|--------------------|------------|
| Load range 1 / Outlet hanging | 49.85 50 01 | 17000 |
| Load range 2 / Outlet hanging | 49.85 50 02 | 17000 |
| Load range 3 / Outlet hanging | 49.85 50 03 | 17000 |
| Load range 1 / Outlet upright | 49.85 51 01 | 17000 |
| Load range 2 / Outlet upright | 49.85 51 02 | 17000 |
| Load range 3 / Outlet upright | 49.85 51 03 | 17000 |

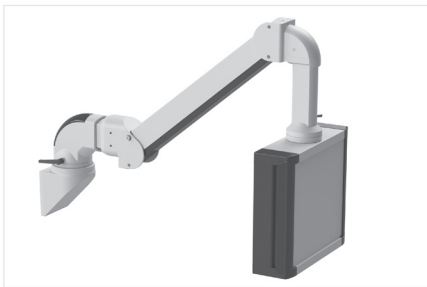
| Load range | |
|---------------|------------|
| Load range 1: | 20 – 32 kg |
| Load range 2: | 32 – 44 kg |
| Load range 3: | 44 – 60 kg |



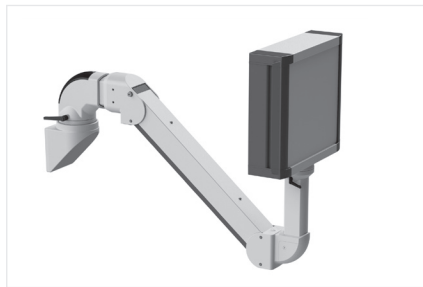
GTV 2.0 outlet towards suspension system GTN II for connecting command system



Suspension system GTL outlet towards machinery

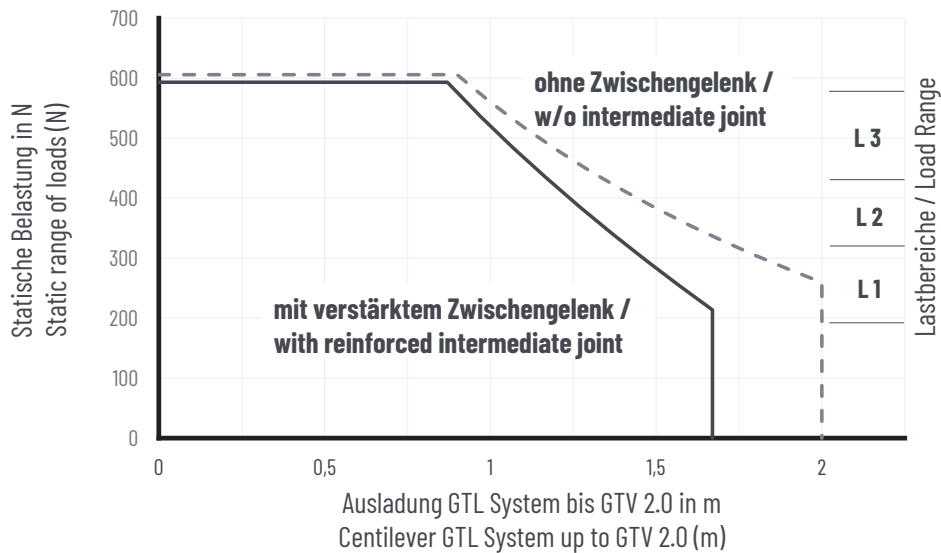


Outlet hanging

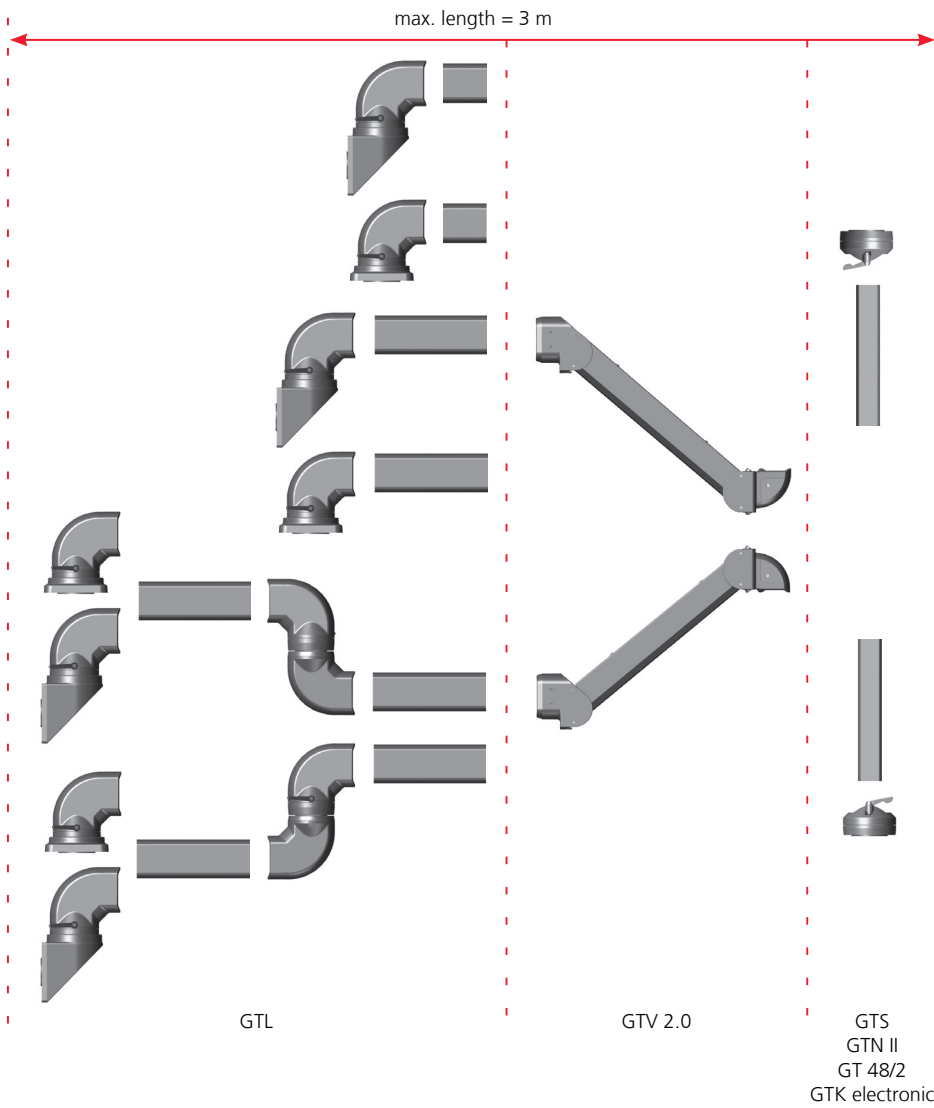


Outlet upright

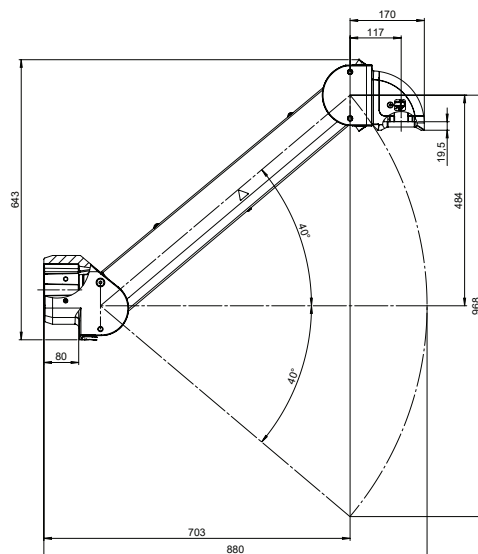
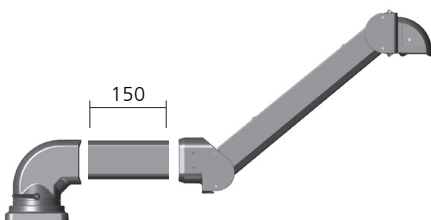
Load diagram



Possible combinations



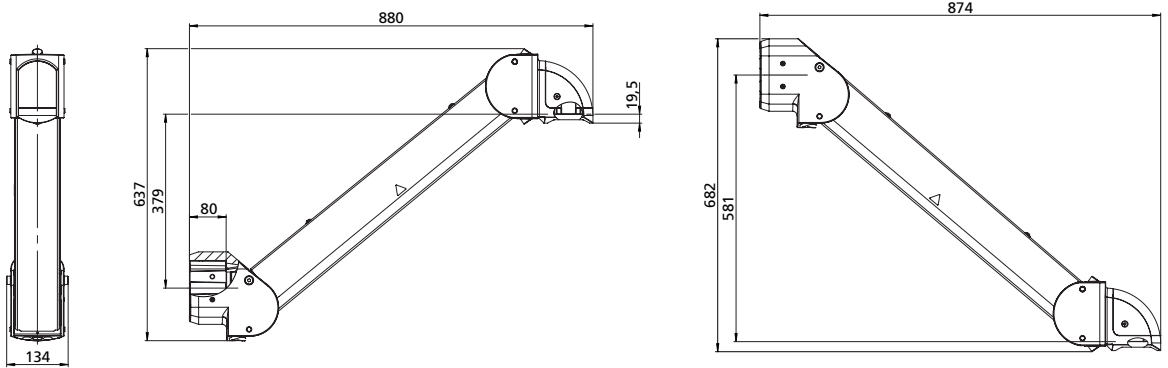
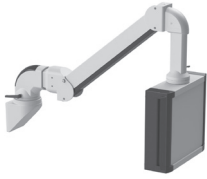
Minimum length between the joints (attachment joint, wall joint, intermediate joint) and GTV 2.0 = 150 mm



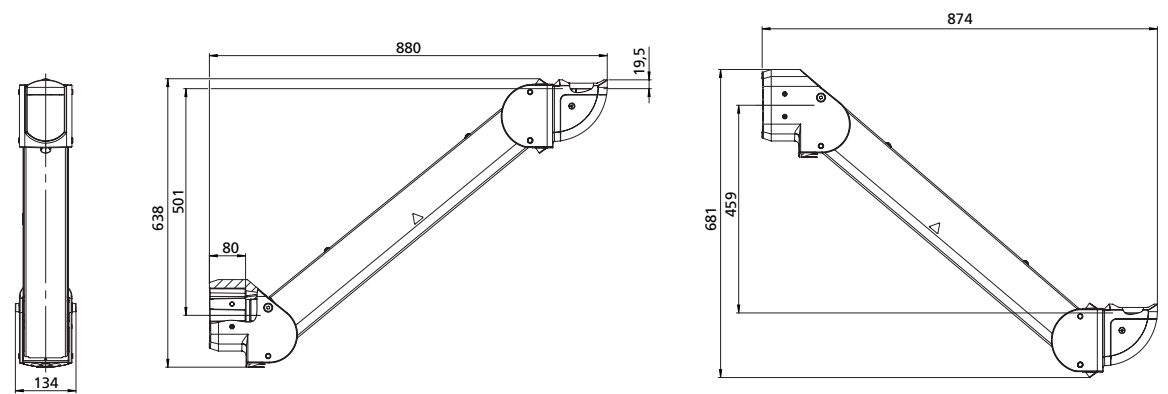
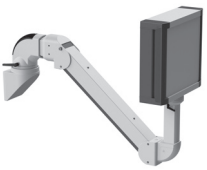
GTV 2.0

Technical details

Height adjustment system, outlet hanging



Height adjustment system, outlet upright





- + Stainless steel round tube system with system components
- + Tube diameter 48 and 60 mm
- + Tube Execution S-, J- and I-shape
- + Components screwed to tube
- + EMC Execution optional
- + Easy to combine with GTH easy

Included in delivery

System components and tube mounted if ordered

Technical data

| | |
|---------------------------|---|
| Material | Tube: stainless steel 1.4301 System components: stainless steel 1.4305 |
| Ingress protection | IP 65 to EN 60529 |
| Surface | Tube: grinded, grain 240 |
| Free cable passage | GTH 48: 41 mm GTH 60: 53 mm |
| Temperature range | -25 °C to +60 °C |



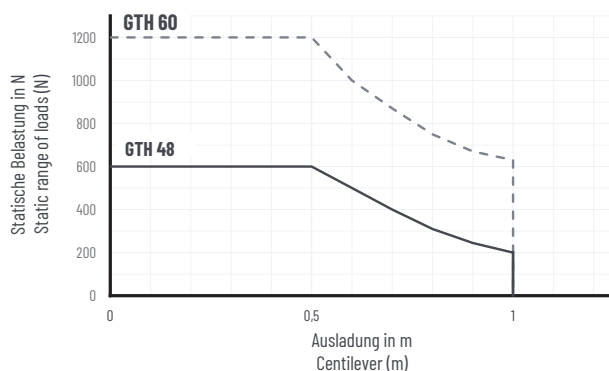
GTH 48 / GTH 60

Product range

| | GTH 48 | | GTH 60 | |
|---|--------------------|------------|--------------------|------------|
| | Order No. | Weight (g) | Order No. | Weight (g) |
| Coupling | 57.01 73 00 | 2790 | 57.02 73 00 | 3390 |
| Coupling EMC | 57.01 73 01 | 2790 | 57.02 73 01 | 3390 |
| Coupling for external tube fitting | 57.01 73 02 | 3070 | 57.02 73 02 | 3680 |
| Top-mounted joint | 57.01 66 00 | 2650 | 57.02 66 00 | 3290 |
| Top-mounted joint EMC | 57.01 66 01 | 2630 | 57.02 66 01 | 3290 |
| Top-mounted joint for external tube fitting | 57.01 66 02 | 2940 | 57.02 66 02 | 3590 |
| Foot stand (hanging / standing) | 57.01 74 00 | 2370 | 57.02 74 00 | 2710 |
| Foot stand with cable outlet (hanging / standing) | 57.01 72 00 | 3120 | 57.02 72 00 | 3780 |
| Console adapter | 57.01 76 00 | 1290 | 57.02 76 00 | 1370 |
| Console adapter hygiene | 57.01 76 01 | 1290 | 57.02 76 01 | 1370 |
| Wall console | 57.01 79 00 | 2910 | 57.02 79 00 | 3120 |
| Spare blind flange | 57.01 99 00 | | 57.02 99 00 | |
| Tube I (500 mm) | 57.01 00 05 | 1760 | 57.02 00 05 | 2490 |
| Tube I (1000 mm) | 57.01 00 10 | 3530 | 57.02 00 10 | 5000 |
| Tube I (1500 mm) | 57.01 00 15 | 5300 | 57.02 00 15 | 7500 |
| Tube I special length | 57.01 00 99 | | 57.02 00 99 | |
| Tube S (500 mm) | 57.01 02 05 | 3520 | 57.02 02 05 | 4340 |
| Tube S (1000 mm) | 57.01 02 10 | 5300 | 57.02 02 10 | 6580 |
| Tube S Sonderlänge | 57.01 02 99 | | 57.02 02 99 | |
| Tube J (500 mm) | 57.01 01 05 | 3510 | 57.02 01 05 | 4330 |
| Tube J (750 mm) | 57.01 01 07 | 5970 | 57.02 01 07 | 7450 |
| Tube J (1000 mm) | 57.01 01 10 | 6850 | 57.02 01 10 | 8570 |
| Tube J special length | 57.01 01 99 | | 57.02 01 99 | |
| System mounting | 57.00 99 00 | | 57.00 99 00 | |

Load diagram

Suspension system GTH



Accessories

Protective cap set

| Order No. | Execution |
|--------------------|---|
| 57.00 99 01 | for top-mounted joint und foot stand (4 caps) |

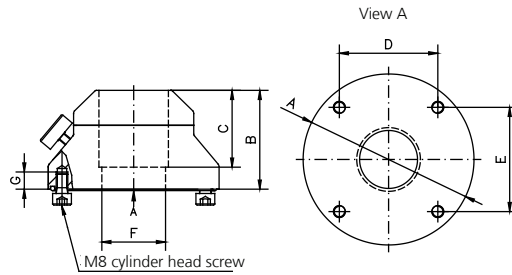
Components

Coupling



Pivot, can be locked at any point using clamping screw. Swivel range: up to 350°, can be adjusted in 60° steps.

| Order No. | Execution | for tube | A | B | C | D | E | F | G |
|--------------------|----------------------|----------|-------|----|----|------|----|------|----|
| GTH 48 | | | | | | | | | |
| 57.01 73 00 | Standard | Ø 48 | Ø 118 | 70 | 53 | 68 | 72 | Ø 44 | 13 |
| 57.01 73 01 | EMC | Ø 48 | Ø 118 | 70 | 53 | 68 | 72 | Ø 44 | 13 |
| 57.01 73 02 | for external fitting | Ø 48 | Ø 118 | 82 | 65 | 68 | 72 | Ø 44 | 13 |
| GTH 60 | | | | | | | | | |
| 57.02 73 00 | Standard | Ø 60 | Ø 130 | 81 | 64 | 85,8 | 68 | Ø 53 | 13 |
| 57.02 73 01 | EMC | Ø 60 | Ø 130 | 81 | 64 | 85,8 | 68 | Ø 53 | 13 |
| 57.02 73 02 | for external fitting | Ø 60 | Ø 130 | 92 | 75 | 85,8 | 68 | Ø 53 | 13 |

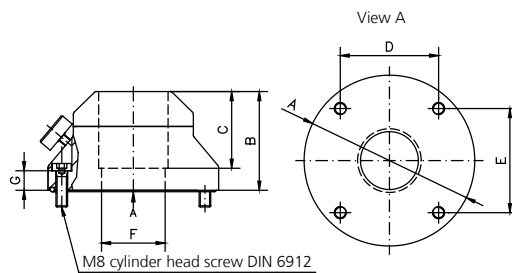


Top-mounted joint



Pivot, can be locked at any point using clamping screw. Swivel range: up to 350°, can be adjusted in 60° steps.

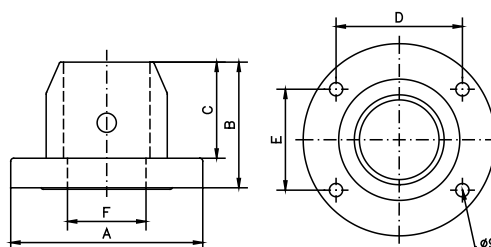
| Order No. | Execution | for tube | A | B | C | D | E | F | G |
|--------------------|----------------------|----------|-------|----|----|------|----|------|----|
| GTH 48 | | | | | | | | | |
| 57.01 66 00 | Standard | Ø 48 | Ø 118 | 70 | 53 | 68 | 72 | Ø 44 | 13 |
| 57.01 66 01 | EMC | Ø 48 | Ø 118 | 70 | 53 | 68 | 72 | Ø 44 | 13 |
| 57.01 66 02 | for external fitting | Ø 48 | Ø 118 | 82 | 65 | 68 | 72 | Ø 44 | 13 |
| GTH 60 | | | | | | | | | |
| 57.02 66 00 | Standard | Ø 60 | Ø 130 | 81 | 64 | 85,8 | 68 | Ø 53 | 14 |
| 57.02 66 01 | EMC | Ø 60 | Ø 130 | 81 | 64 | 85,8 | 68 | Ø 53 | 14 |
| 57.02 66 02 | for external fitting | Ø 60 | Ø 130 | 92 | 75 | 85,8 | 68 | Ø 53 | 14 |



Foot stand for base or ceiling mounting



| Order No. | Execution | for tube | A | B | C | D | E | F |
|--------------------|---------------------------------|----------|-------|----|----|------|----|--------|
| GTH 48 | | | | | | | | |
| 57.01 74 00 | Foot stand (hanging / standing) | Ø 48 | Ø 118 | 80 | 60 | 68 | 72 | Ø 41,9 |
| GTH 60 | | | | | | | | |
| 57.02 74 00 | Foot stand (hanging / standing) | Ø 60 | Ø 130 | 85 | 60 | 85,8 | 68 | Ø 53,9 |



GTH 48 / GTH 60

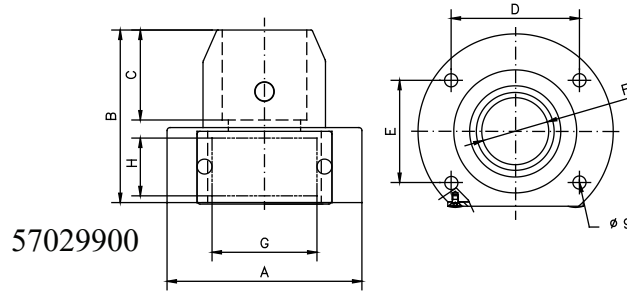
Components

Foot stand with cable outlet



for external cable outlet on side

| Order No. | Execution | für Tube | A | B | C | D | E | F | G | H |
|--------------------|---------------------------------|----------|-------|-----|----|------|----|--------|----|------|
| GTH 48 | | | | | | | | | | |
| 57.01 72 00 | Foot stand (hanging / standing) | Ø 48 | Ø 118 | 110 | 60 | 68 | 72 | Ø 41,9 | 45 | 38,5 |
| GTH 60 | | | | | | | | | | |
| 57.02 72 00 | Foot stand (hanging / standing) | Ø 60 | Ø 130 | 115 | 60 | 85,8 | 68 | Ø 53,9 | 70 | 38,5 |



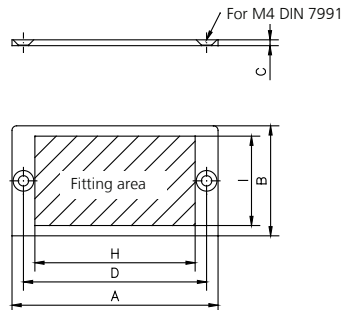
Spare blind flange for foot stand with cable outlet



| Order No. | A | B | C | D | H | I |
|--------------------|----|------|-----|----|----|------|
| GTH 48 | | | | | | |
| 57.01 99 02 | 73 | 47,5 | 2,5 | 55 | 45 | 38,5 |
| GTH 60 | | | | | | |
| 57.02 99 00 | 90 | 48 | 2,5 | 80 | 70 | 38,5 |

Max. number of cable glands/ blind flange:

- 57.01 99 02: 1 x 25 or 1 x 20 or 4 x M12
- 57.02 99 00: 1 x 25 or 2 x 20 or 6 x M12

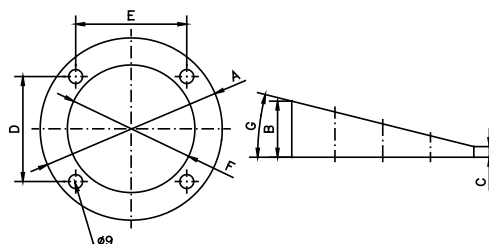


Console adapter



Angle of inclination 14°

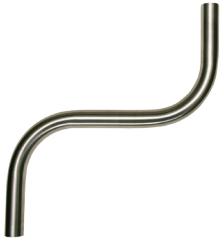
| Order No. | for tube | A | B | C | D | E | F | G |
|--------------------|----------|-------|----|------|------|----|------|-----|
| GTH 48 | | | | | | | | |
| 57.01 76 00 | Ø 48,3 | Ø 118 | 40 | 10,6 | 68 | 72 | Ø 79 | 14° |
| GTH 60 | | | | | | | | |
| 57.02 76 00 | Ø 60,3 | Ø 130 | 40 | 7,6 | 85,8 | 68 | Ø 91 | 14° |



GTH 48 / GTH 60

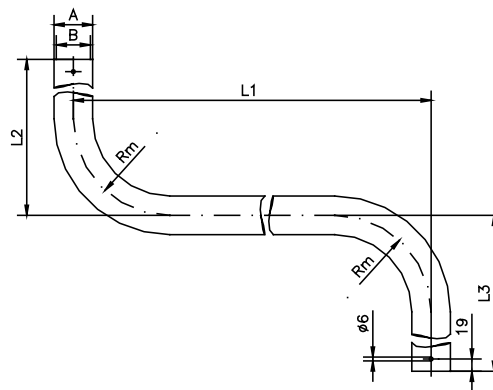
Components

Connecting tube S



| Order No. | L1 (mm) | L2 (mm) | L3 (mm) | A (outside Ø) | B (inside Ø) | Weight (g) |
|--------------------|----------------|---------|---------|---------------|--------------|------------|
| GTH 48 | | | | | | |
| 57.01 02 05 | 500 | 300 | 300 | 48,3 | 41 | 3520 |
| 57.01 02 10 | 1000 | 300 | 300 | 48,3 | 41 | 5290 |
| 57.01 02 99 | special length | | | 48,3 | 41 | - |
| GTH 60 | | | | | | |
| 57.02 02 05 | 500 | 300 | 300 | 60,3 | 53 | 4340 |
| 57.02 02 10 | 1000 | 300 | 300 | 60,3 | 53 | 6580 |
| 57.02 02 99 | special length | | | 60,3 | 53 | - |

max. length L1 = 1000 mm



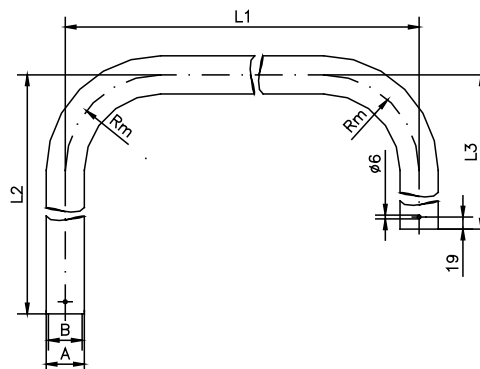
Connecting tube J



Product info:
Individual lengths and
executions on request.

| Order No. | L1 (mm) | L2 (mm) | L3 (mm) | A (outside Ø) | B (inside Ø) | Weight (g) |
|--------------------|----------------|---------|---------|---------------|--------------|------------|
| GTH 48 | | | | | | |
| 57.01 01 05 | 500 | 300 | 300 | 48,3 | 41 | 3510 |
| 57.01 01 07 | 750 | 750 | 300 | 48,3 | 41 | 5970 |
| 57.01 01 10 | 1000 | 750 | 300 | 48,3 | 41 | 6850 |
| 57.01 01 99 | special length | | | 48,3 | 41 | - |
| GTH 60 | | | | | | |
| 57.02 01 05 | 500 | 300 | 300 | 60,3 | 53 | 4330 |
| 57.02 01 07 | 750 | 750 | 300 | 60,3 | 53 | 7450 |
| 57.02 01 10 | 1000 | 750 | 300 | 60,3 | 53 | 8570 |
| 57.02 01 99 | special length | | | 60,3 | 53 | - |

max. length L1 = 1000 mm



Enquiry Order

Please copy, complete and send to: hmi@rose-pw.de

Company _____

Telephone _____

Contact _____

Fax _____

Address _____

E-Mail _____

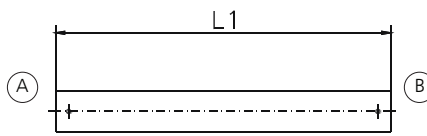
Suspension system GTH 48 GTH 60 Quantity _____

System consisting of the following components:

Components, side A

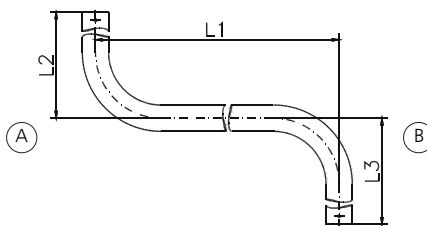
- Coupling
- EMC coupling
- Coupling for external tube fitting
- Top-mounted joint
- EMC top-mounted joint
- Top-mounted joint for external tube fitting
- Foot stand
- Foot stand for ceiling mounting
- Foot stand with cable outlet
- Foot stand (ceiling mounting) with cable outlet
- Console adapter
- Wall console

Connecting tube



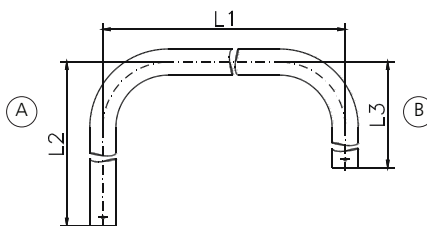
I-tube (L1)

- 500 mm
- 1000 mm
- 1500 mm
- Special length _____ mm



S-tube (L1/L2/L3)

- 500/300/300 mm
- 1000/300/300 mm
- Special length* ____ / ____ / ____ mm



J-tube (L1/L2/L3)

- 500/300/300 mm
- 750/750/300 mm
- 1000/750/300 mm
- Special length* ____ / ____ / ____ mm

* Attention: measure dimension tube center
min. lengths L2 and L3: 280 mm
max. lengths L1 = 1000 mm

Components, side B

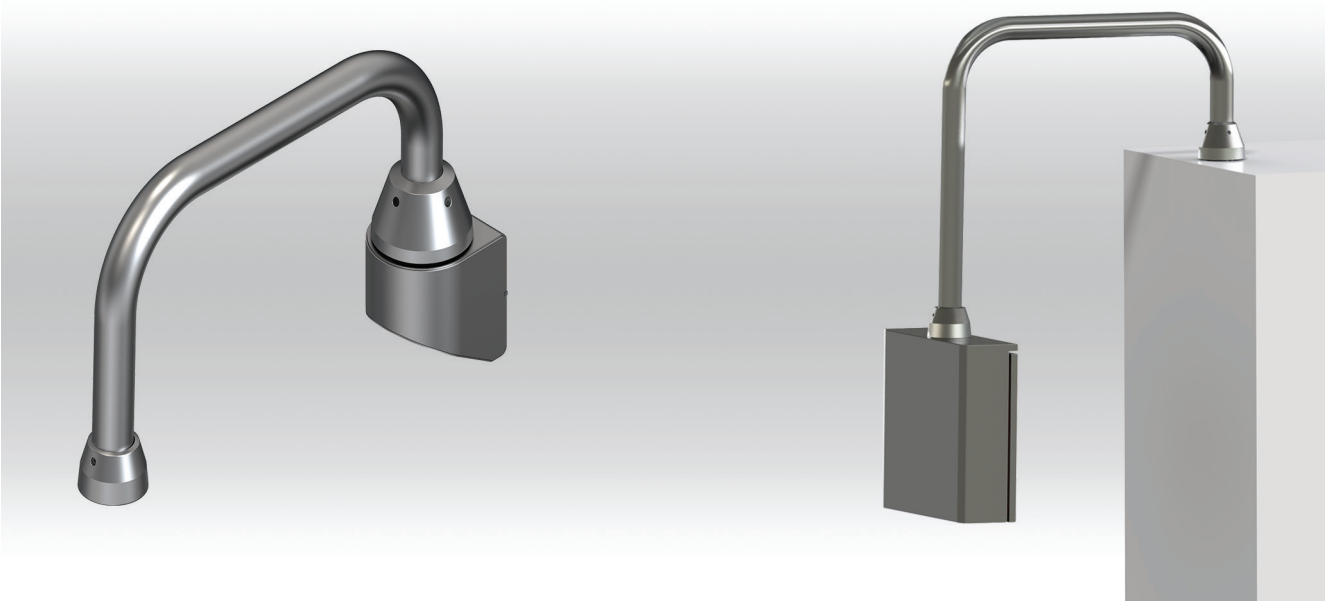
- Coupling
- EMC coupling
- Coupling for external tube fitting
- Top-mounted joint
- EMC top-mounted joint
- Top-mounted joint for external tube fitting
- Foot stand
- Foot stand for ceiling mounting
- Foot stand with cable outlet
- Foot stand (ceiling mounting) with cable outlet
- Console adapter
- Wall console

Accessories

- Protective cap set
- Spare blind flange untreated
- Spare blind flange treated _____



GTH 48 easy / GTH 60 easy



- + Stainless steel round tube system with system components
- + Tube diameter 48 and 60 mm
- + Tube Execution S-, J- and I-shape
- + Very compact design
- + Little assembly effort
- + Up to IP rating: IP 69
- + Easy to combine with GTH

Included in delivery

System components and tube mounted if ordered

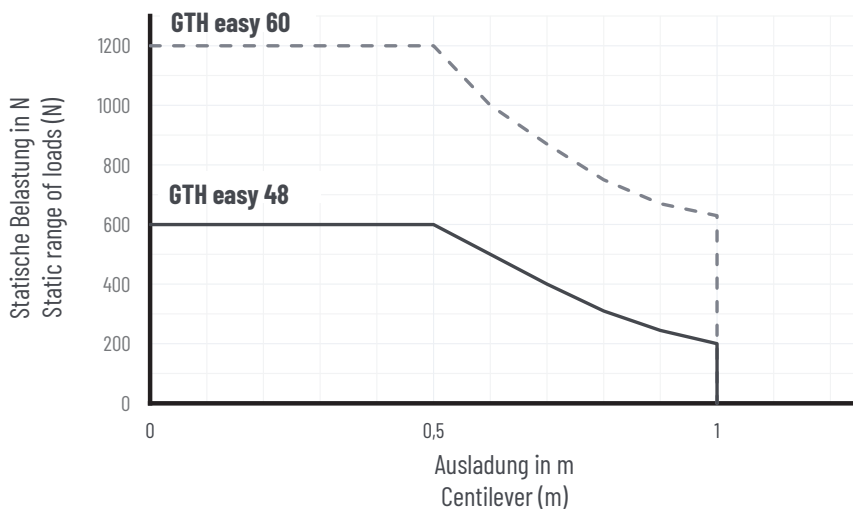
Technical data

| | |
|---------------------------|--|
| Material | Tube: stainless steel 1.4301/ 304 Components: stainless steel 1.4301/ 304 |
| Ingress protection | IP 66 / IP 69 to EN 60529 |
| Surface | Tube: grinded, grain 240 |
| Free cable passage | GTH 48: 41 mm GTH 60: 53 mm |
| Temperature range | -25 °C to +60 °C |

Product range

| Type | GTH 48 easy | | GTH 60 easy | |
|-----------------------|--------------------|------------|--------------------|------------|
| | Order No. | Weight (g) | Order No. | Weight (g) |
| Coupling | 57.03 73 00 | 993 | 57.04 73 00 | 2710 |
| Top-mounted joint | 57.03 66 00 | 3200 | 57.04 66 00 | 3780 |
| Console adapter | 57.03 76 00 | 637 | 57.04 76 00 | 1190 |
| Wall console | 57.03 79 00 | 2230 | 57.04 79 00 | 2230 |
| Tube I (500 mm) | 57.03 00 05 | 1760 | 57.04 00 05 | 2490 |
| Tube I (1000 mm) | 57.03 00 10 | 3530 | 57.04 00 10 | 4990 |
| Tube I (1500 mm) | 57.03 00 15 | 5300 | 57.04 00 15 | 7500 |
| Tube I special length | 57.03 00 99 | | 57.04 00 99 | |
| Tube S (500 mm) | 57.03 02 05 | 3520 | 57.04 02 05 | 4340 |
| Tube S (1000 mm) | 57.03 02 10 | 5290 | 57.04 02 10 | 6580 |
| Tube S special length | 57.03 02 99 | | 57.04 02 99 | |
| Tube J (500 mm) | 57.03 01 05 | 3510 | 57.04 01 05 | 4330 |
| Tube J (750 mm) | 57.03 01 07 | 5970 | 57.04 01 07 | 7450 |
| Tube J (1000 mm) | 57.03 01 10 | 6850 | 57.04 01 10 | 8560 |
| Tube J special length | 57.03 01 99 | | 57.04 01 99 | |

Load diagram



GTH 48 easy / GTH 60 easy

Components

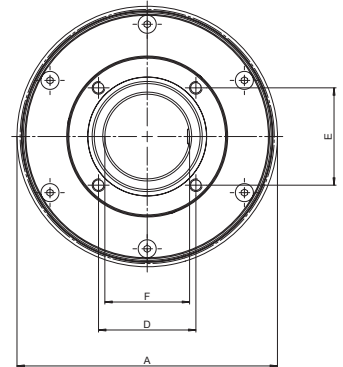
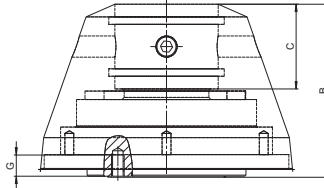
Top-mounted joint



Swivelling range 330°

Suitable for tensile, compressive and tangential loads.

| Order No. | for tube | A | B | C | D | E | F | G |
|--------------------|----------|-----|------|----|----|----|----|----|
| GTH 48 easy | | | | | | | | |
| 57.03 66 00 | Ø 48 | 119 | 81,7 | 40 | 46 | 46 | 40 | 10 |
| GTH 60 easy | | | | | | | | |
| 57.04 66 00 | Ø 60 | 119 | 96,7 | 50 | 46 | 46 | 50 | 10 |



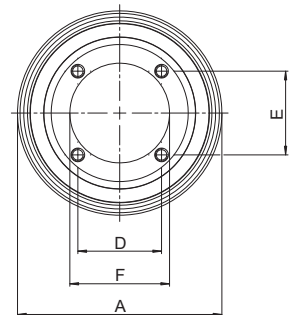
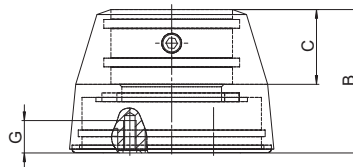
Coupling



Swivelling range 330°

Suitable for tensile and compressive loads.

| Order No. | for tube | A | B | C | D | E | F | G |
|--------------------|----------|-----|------|----|------|------|----|----|
| GTH 48 easy | | | | | | | | |
| 57.03 73 00 | Ø 48 | 82 | 57,6 | 30 | 33,6 | 33,6 | 40 | 13 |
| GTH 60 easy | | | | | | | | |
| 57.04 73 00 | Ø 60 | 112 | 76,2 | 40 | 46 | 46 | 50 | 13 |



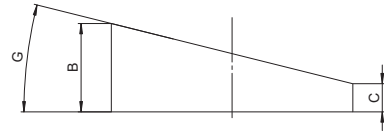
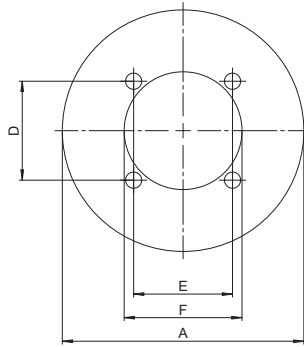
Components

Console adapter



| Order No. | for tube | A | B | C | D | E | F | G |
|--------------------|----------|-----|----|-----|------|------|----|-----|
| GTH 48 easy | | | | | | | | |
| 57.03 76 00 | Ø 48,3 | 82 | 30 | 9,6 | 33,6 | 33,6 | 40 | 14° |
| GTH 60 easy | | | | | | | | |
| 57.04 76 00 | Ø 60,3 | 112 | 33 | 5 | 46 | 46 | 50 | 14° |

Angle of inclination 14°



GTH 48 easy / GTH 60 easy

Components

Wallconsole



for adaption top-mounted joint or coupling

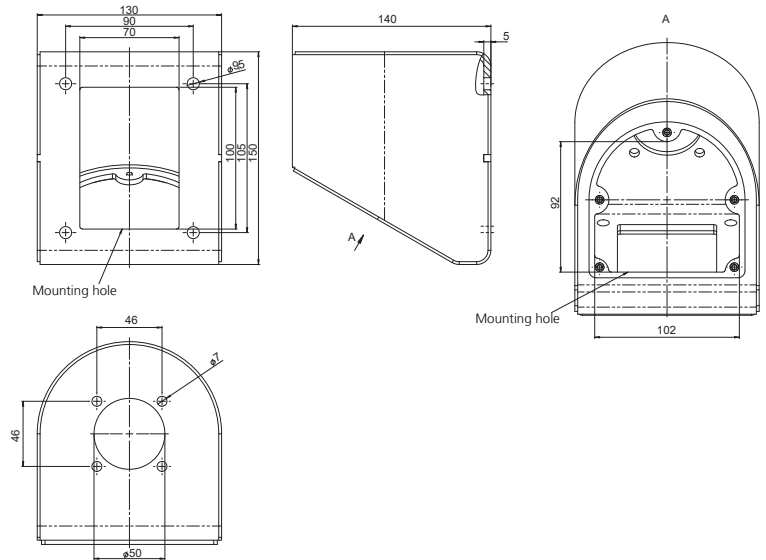
Order No. for tube

GTH 48 easy

57.03 79 00 Ø 48

GTH 60 easy

57.04 79 00 Ø 60

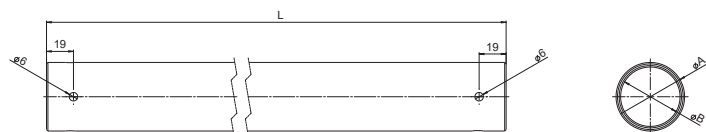


Connecting tube I



| Order No. | L1 (mm) | A (außen Ø) | B (innen Ø) | Weight (g) |
|--------------------|----------------|-------------|-------------|------------|
| GTH 48 easy | | | | |
| 57.03 00 05 | 500 | 48,3 | 41,9 | 1760 |
| 57.03 00 10 | 1000 | 48,3 | 41,9 | 3530 |
| 57.03 00 15 | 1500 | 48,3 | 41,9 | 5300 |
| 57.03 00 99 | special length | 48,3 | 41,9 | - |
| GTH 60 easy | | | | |
| 57.04 00 05 | 500 | 60,3 | 53,1 | 2490 |
| 57.04 00 10 | 1000 | 60,3 | 53,1 | 4990 |
| 57.04 00 15 | 1500 | 60,3 | 53,1 | 7500 |
| 57.04 00 99 | special length | 60,3 | 53,1 | - |

max. length L1 = 1000 mm



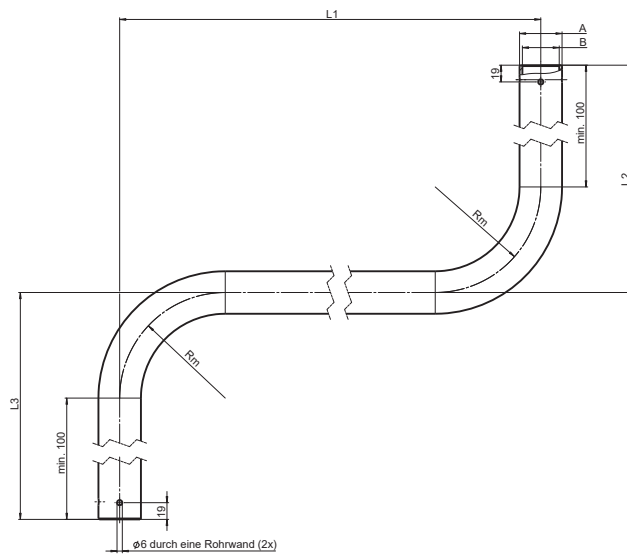
Components

Connecting tube S



| Order No. | L1 | L2 | L3 | A | B | Rm | Weight (g) |
|--------------------|----------------|-----|-----|------|------|-----|------------|
| GTH 48 easy | | | | | | | |
| 57.03 02 05 | 500 | 300 | 300 | 48,3 | 41,9 | 120 | 3520 |
| 57.03 02 10 | 1000 | 300 | 300 | 48,3 | 41,9 | 120 | 5290 |
| 57.03 02 99 | special length | | | 48,3 | 41,9 | 120 | - |
| GTH 60 easy | | | | | | | |
| 57.04 02 05 | 500 | 300 | 300 | 60,3 | 53,1 | 150 | 4340 |
| 57.04 02 10 | 1000 | 300 | 300 | 60,3 | 53,1 | 150 | 6580 |
| 57.04 02 99 | special length | | | 60,3 | 53,1 | 150 | - |

max. length L1 = 1000 mm



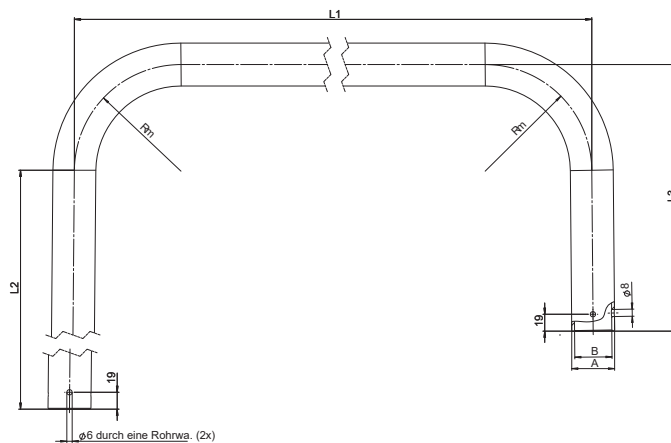
Connecting tube J



Product info:

Individual lengths and executions on request.

| Order No. | L1 | L2 | L3 | A | B | Rm | Weight (g) |
|--------------------|----------------|-----|-----|------|------|-----|------------|
| GTH 48 easy | | | | | | | |
| 57.03 01 05 | 500 | 300 | 300 | 48,3 | 41,9 | 120 | 3510 |
| 57.03 01 07 | 750 | 750 | 300 | 48,3 | 41,9 | 120 | 5970 |
| 57.03 01 10 | 1000 | 750 | 300 | 48,3 | 41,9 | 120 | 6850 |
| 57.03 01 99 | special length | | | 48,3 | 41,9 | 120 | - |
| GTH 60 easy | | | | | | | |
| 57.04 01 05 | 500 | 300 | 300 | 60,3 | 53,1 | 150 | 4330 |
| 57.04 01 07 | 750 | 750 | 300 | 60,3 | 53,1 | 150 | 7450 |
| 57.04 01 10 | 1000 | 750 | 300 | 60,3 | 53,1 | 150 | 8660 |
| 57.04 01 99 | special length | | | 60,3 | 53,1 | 150 | - |



GTH 48 easy / GTH 60 easy

Enquiry Order

Please copy, complete and send to: hmi@rose-pw.de

Company _____

Telephone _____

Contact _____

Fax _____

Address _____

E-Mail _____

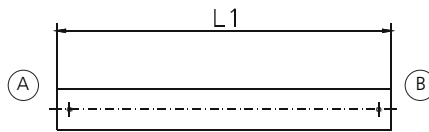
Suspension system GTH 48 easy GTH 60 easy Quantity _____

System consisting of the following components:

Components, side A

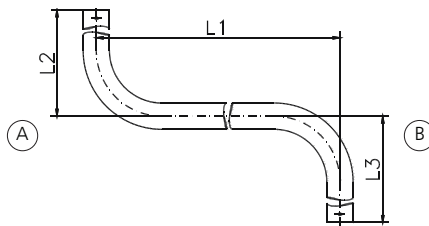
- Coupling
- EMC coupling
- Coupling for external tube fitting
- Top-mounted joint
- EMC top-mounted joint
- Top-mounted joint for external tube fitting
- Foot stand
- Foot stand for ceiling mounting
- Foot stand with cable outlet
- Foot stand (ceiling mounting) with cable outlet
- Console adapter
- Wall console

Connecting tube



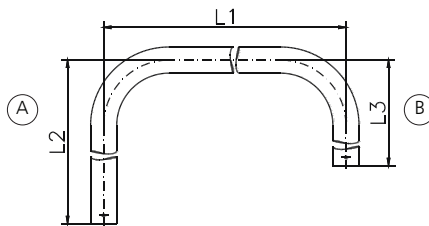
I-tube (L1)

- 500 mm
- 1000 mm
- 1500 mm
- Special length _____ mm



S-tube (L1/L2/L3)

- 500/300/300 mm
- 1000/300/300 mm
- Special length* _____ / _____ / _____ mm



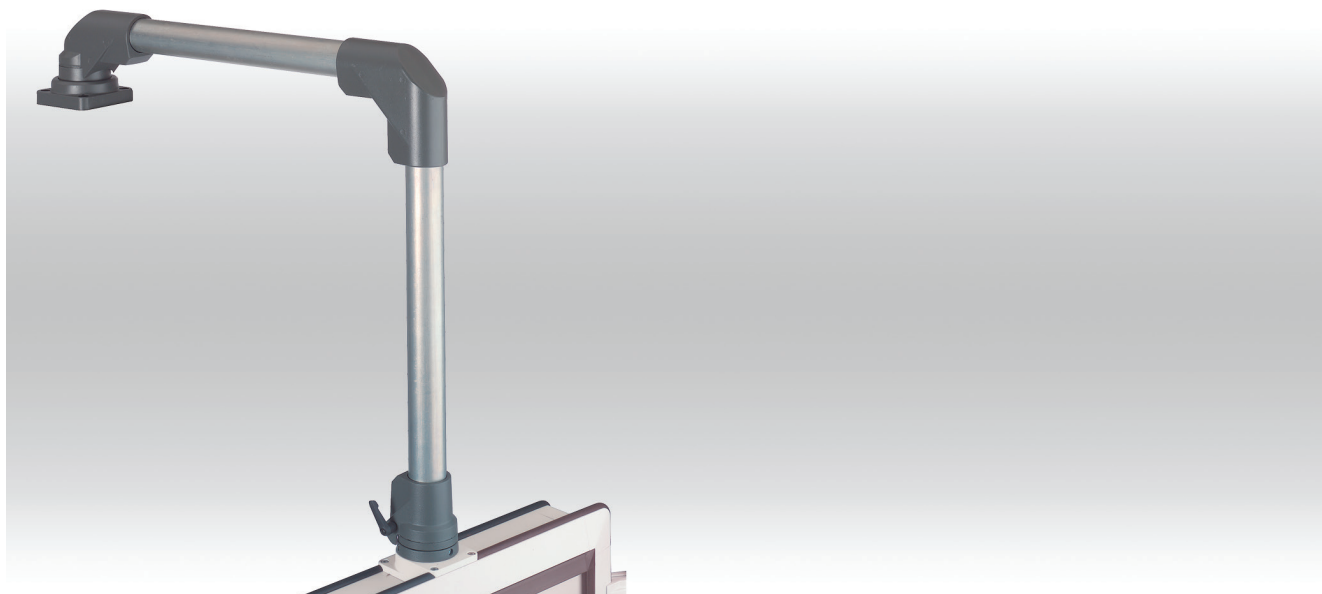
J-tube (L1/L2/L3)

- 500/300/300 mm
- 750/750/300 mm
- 1000/750/300 mm
- Special length* _____ / _____ / _____ mm

* Attention: measure dimension tube center
min. lengths L2 and L3: 280 mm
max. lengths L1 = 1000 mm

Components, side B

- Coupling
- Top-mounted joint
- Console adapter
- Wall console



- + Industrial round tube system for commander systems
- + Modular construction for individual components
- + Protected internal cable routing

Included in delivery

Individual system components incl.
assembly materials

Technical data

| | |
|---------------------------|--|
| Material | Connecting tube: steel 48 x 4 mm DIN 2393-St. 37 Components: DIN EN 1706 EN AC-AISI 12 (Fe) |
| Painting | Powder coating |
| Colour | Tube: galvanized Components: RAL 7043, traffic grey B, Special colour on request |
| Ingress protection | IP 54 to EN 60529 |



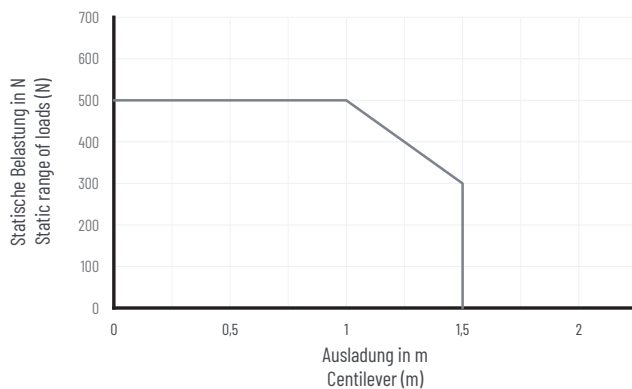
GT 48/2

Product range

| Type | Order No. | Weight (g) |
|------------------------------------|--------------------|------------|
| Top-mounted joint | 49.49 66 00 | 2070 |
| Foot stand, fixed | 49.49 72 00 | 739 |
| Foot stand, turnable | 49.49 68 00 | 1840 |
| Wall hinge W | 49.49 70 00 | 2920 |
| Wall hinge S | 49.49 62 00 | 2660 |
| Angle | 49.49 71 00 | 927 |
| Coupling | 49.49 73 00 | 988 |
| Flange coupling | 49.49 77 00 | 859 |
| Flange coupling GT 48/2-PRO | 49.49 77 02 | 1060 |
| Angle coupling | 49.49 75 00 | 1220 |
| Flange angle coupling | 49.49 78 00 | 1090 |
| Flansch angle coupling GT 48/2-PRO | 49.49 78 02 | 1290 |
| Console flange 30° | 49.49 76 00 | 319 |
| Adapter flange | 49.49 79 00 | 2000 |
| Inclining adapter | 49.49 80 00 | 818 |
| Adapter plate GT 48/2-PRO | 49.45 00 01 | 175 |

| Connecting tube | Order No. | Weight (g) |
|----------------------------------|--------------------|------------|
| Standard length: 0,5 m | 10.09 42 16 | 2180 |
| Standard length: 1 m | 10.09 42 17 | 4350 |
| Standard length: 2 m | 10.09 42 18 | 8700 |
| Standard length: 3 m | 10.09 42 19 | 13050 |
| Variable length (please specify) | 10.09 41 58 | |

Load diagram

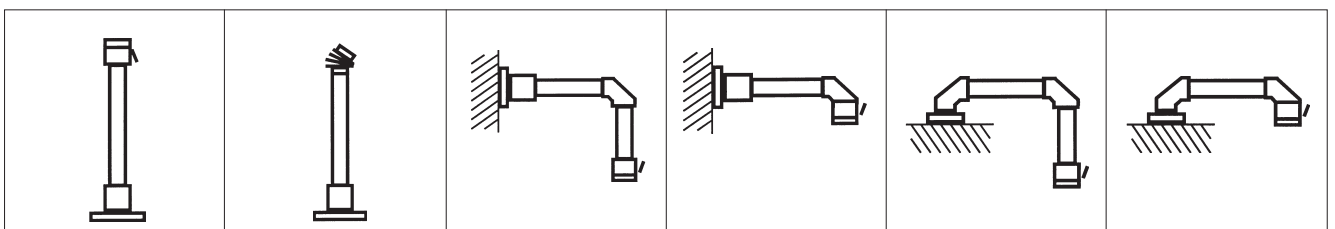


Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!).

Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing.

The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.

System structure



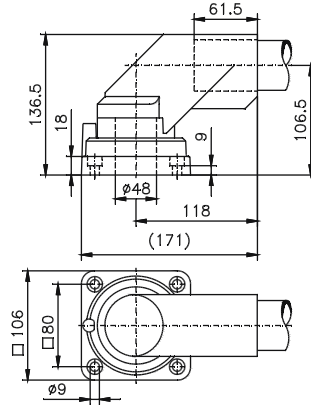
Components

Top mounted joint



Order No. Execution

49.49 66 00 Diecast aluminium with steel inner tube and flange mounting.
Swivelling range 250°

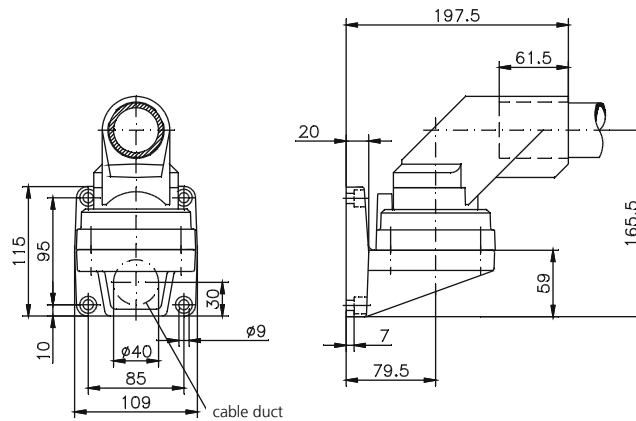


Wall hinge W (horizontal)



Order No. Execution

49.49 70 00 Diecast aluminium with steel inner tube and flange mounting.
Swivelling range 250°

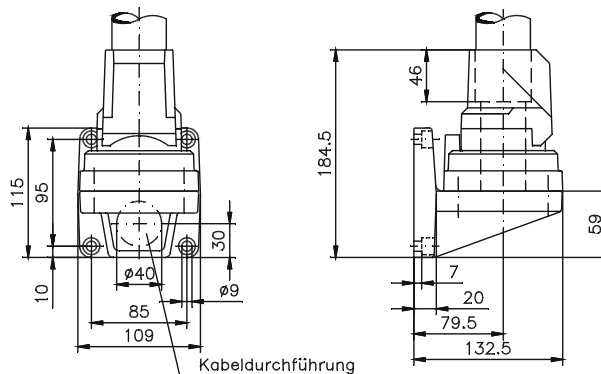


Wall hinge S (vertical)



Order No. Execution

49.49 62 00 Diecast aluminium with steel inner tube and flange mounting.
Swivelling range 250°

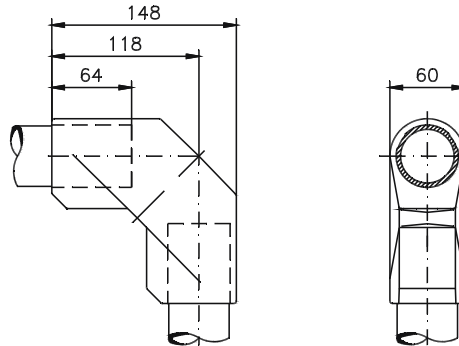


Components

Angle



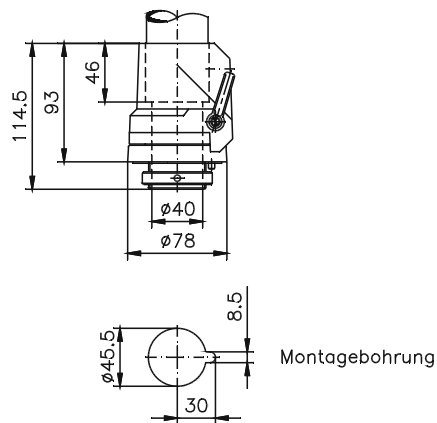
| Order No. | Execution |
|--------------------|------------------------------|
| 49.49 71 00 | Diecast aluminium. Angle 90° |



Coupling



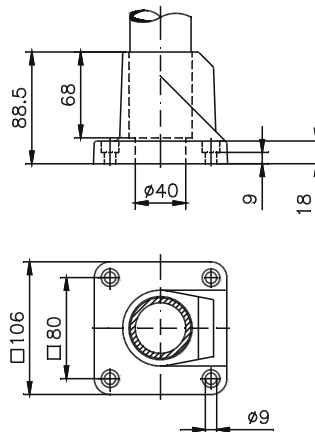
| Order No. | Execution |
|--------------------|---|
| 49.49 73 00 | Diecast aluminium with steel inner tube. Swivelling range 270°. Lockable with clamping lever. |



Foot stand fixed



| Order No. | Execution |
|--------------------|----------------------------------|
| 49.49 72 00 | Diecast aluminium, fixed version |



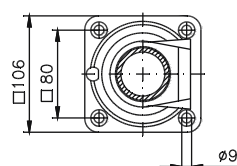
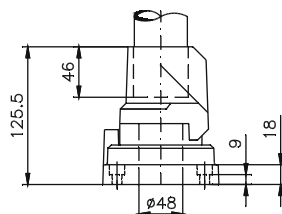
Components

Foot stand turnable



Order No. Execution

49.49 68 00 Diecast aluminium with steel inner tube and flange mounting.
Swivelling range 250°

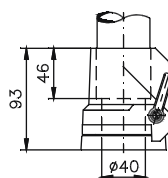
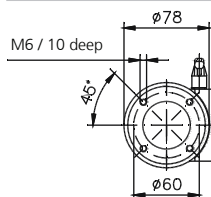


Flange coupling



Order No. Execution

49.49 77 00 Diecast aluminium with steel inner tube.
Swivelling range 270°.
Lockable with clamping lever.

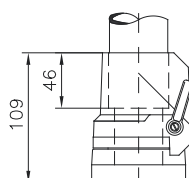
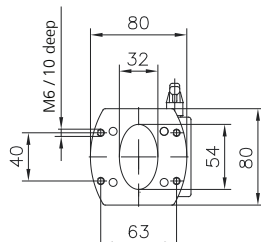


Flange coupling GT 48/2 Pro



Order No. Execution

49.49 77 02 for direct mounting of Siemens Pro command units.
Diecast aluminium with steel inner tube.
Swivelling range 270°.
Lockable with clamping lever.



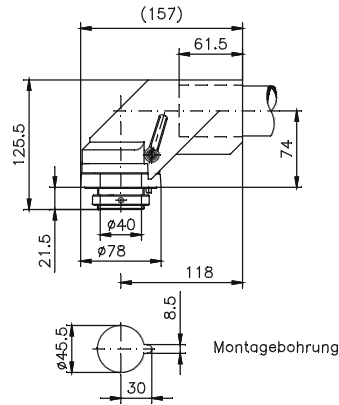
Components

Angle coupling



Order No. Execution

49.49 75 00 Combination of angle and coupling for horizontal tube exit. Cast aluminium with steel inner tube. Swivelling range 270°. Lockable with clamping lever

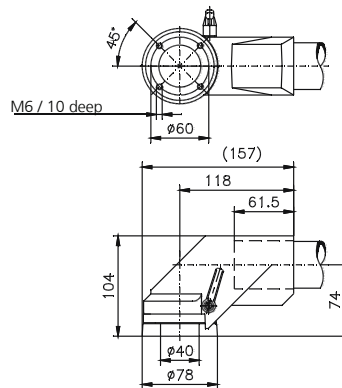


Flange angle coupling



Order No. Execution

49.49 78 00 Combination of angle and coupling for horizontal tube exit. Diecast aluminium with steel inner tube. Swivelling range 270°. Lockable with clamping lever

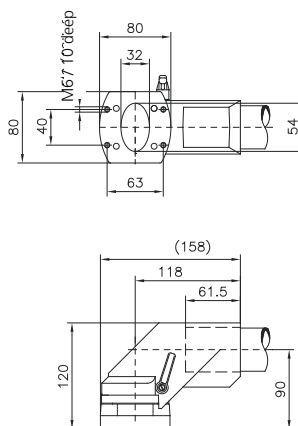


Flange angle coupling GT 48/2 Pro



Order No. Execution

49.49 78 02 for direct mounting of Siemens Pro command units
Combination of angle and coupling for horizontal tube exit. Cast aluminium with steel inner tube. Swivelling range 270°. Lockable with clamping lever



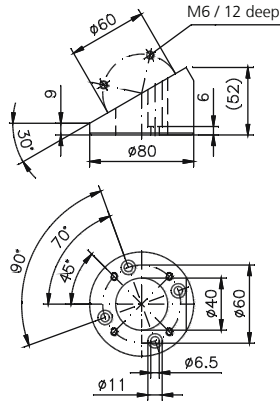
Components

Console flange



Order No. Execution

49.49 76 00 Aluminium incl. screws and seal, fixed inclination 30°

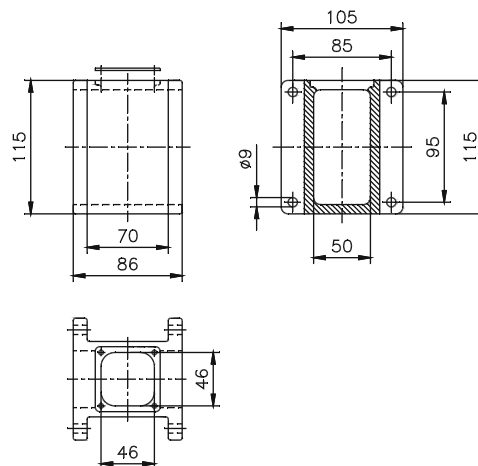


Adapter flange



Order No. Execution

49.49 79 00 Cast steel part for mounting between wall and wall hinge for free cable routing, cable opening top or bottom as required.

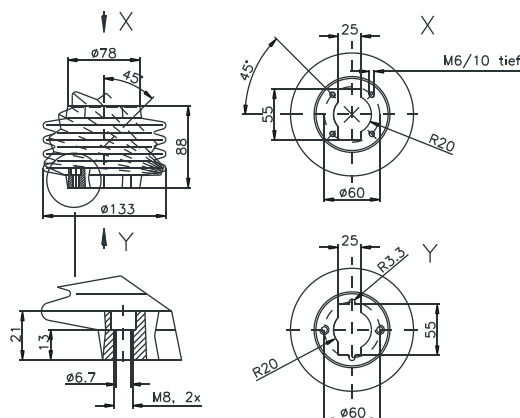


Inclining adapter



Order No. Execution

49.49 80 00 Diecast aluminium part with bellow and seal, inclination can be adjusted to any angle between 0° and 45°.



Components

Adapter plate GT 48/2 Pro

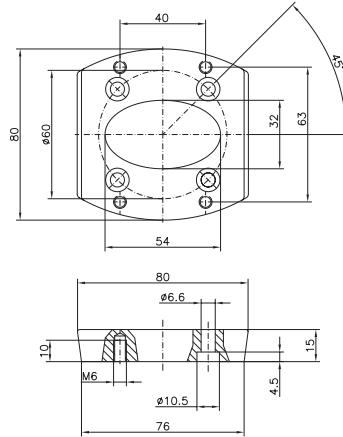


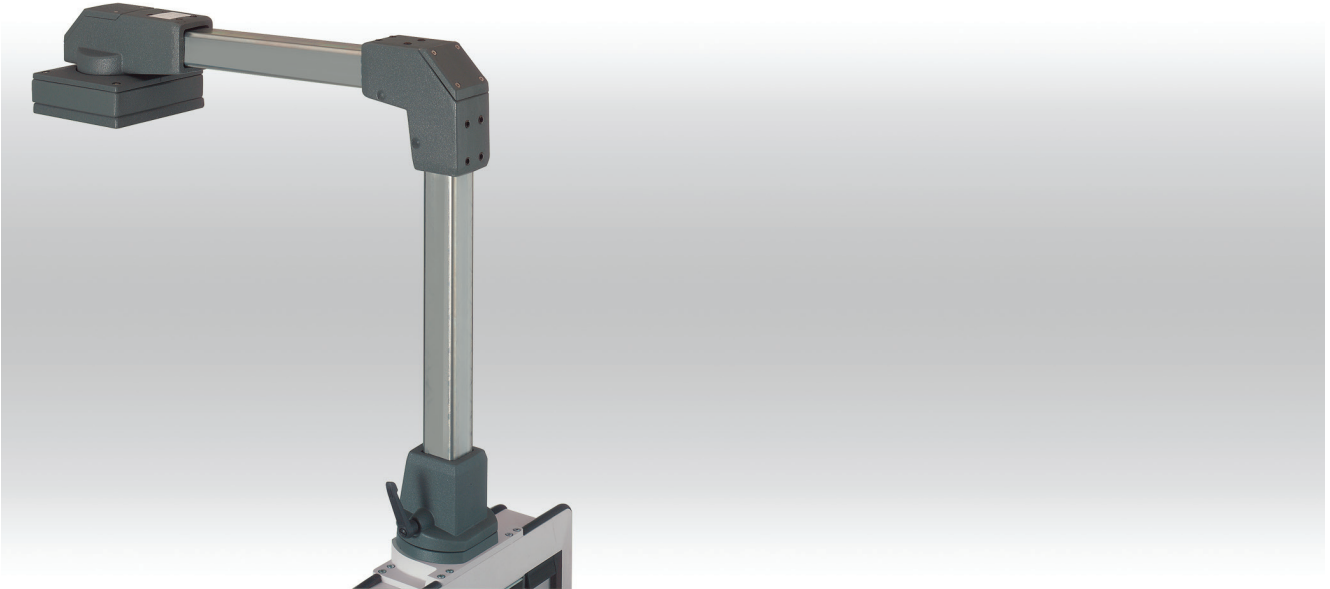
Order No.

Execution

49.49 00 01

for connecting GT 48/2 elements with Siemens Pro command units
(not relevant for flange coupling GT 48/2 Pro and flange angle coupling GT 48/2 Pro)





- + Robust industrial square tube suspension system
- + Modular construction for individual components
- + High loading capacity, large extension

Included in delivery

Individual system components incl.
assembly material

Technical data

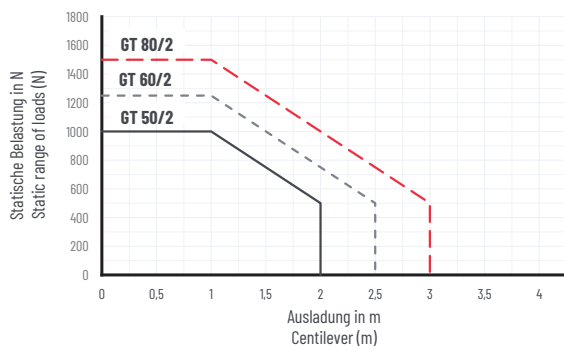
| | |
|---------------------------|---|
| Material | Connecting tube: square steel tube similar DIN EN 10305-5 Wall thickness 5 mm Components: DIN EN 1706 EN AC-ALSi 12 (Fe) |
| Painting | Powder coating |
| Colour | Tube: galvanized Components: RAL 7043, traffic grey B, Special colour on request |
| Ingress protection | IP 65 to EN 60529 |

Product range

| | GT 50/2 | | GT 60/2 | | GT 80/2 | |
|---------------------------------------|--------------------|------------|--------------------|------------|--------------------|------------|
| Type | Order No. | Weight (g) | Order No. | Weight (g) | Order No. | Weight (g) |
| Top-mounted joint | 49.51 66 00 | 12000 | 49.61 66 00 | 16000 | 49.81 66 00 | 21000 |
| Foot stand, cast steel | 49.51 74 00 | 2880 | 49.61 74 00 | 3650 | 49.81 74 00 | 5440 |
| Wall hinge | 49.51 70 00 | 5460 | 49.61 70 00 | 7780 | 49.81 70 00 | 11000 |
| Adapter flange | 49.51 79 00 | 2800 | 49.61 79 00 | 3750 | 49.81 79 00 | 6020 |
| Intermediate joint | 49.51 67 00 | 5940 | 49.61 67 00 | 8370 | 49.81 67 00 | 12000 |
| Angle, cast steel | 49.51 80 00 | 4180 | 49.61 80 00 | 5630 | 49.81 80 00 | 7920 |
| Flange angle coupling | 49.51 78 00 | 2410 | 49.61 78 00 | 3240 | 49.81 78 00 | 4610 |
| Coupling | | | | | 49.81 73 00 | 2680 |
| Flange coupling | 49.51 77 00 | 1890 | 49.61 77 00 | 2600 | 49.81 77 00 | 4560 |
| Console adapter 30° | 49.51 76 00 | 901 | 49.61 76 00 | 1270 | 49.81 76 00 | 2240 |
| Signal fitting | 49.51 80 10 | 211 | 49.61 80 10 | 267 | 49.81 80 10 | 339 |
| Adapter plate GTK on GT 80/2; GT 60/2 | | | | | 49.81 10 00 | 829 |
| Column | 49.51 00 04 | | 49.61 00 04 | | on request | |

| Connecting tube | GT 50/2 | | GT 60/2 | | GT 80/2 | |
|----------------------------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Order No. | Weight (g) | Order No. | Weight (g) | Order No. | Weight (g) |
| Standard length: 0,5 m | 10.09 42 20 | 3330 | 10.09 42 23 | 4120 | 10.09 42 27 | 5690 |
| Standard length: 1 m | 10.09 42 21 | 6660 | 10.09 42 24 | 8230 | 10.09 42 28 | 11000 |
| Standard length: 2 m | 10.09 42 22 | 13000 | 10.09 42 25 | 16000 | 10.09 42 29 | 23000 |
| Standard length: 3 m | 10.09 42 42 | 20000 | 10.09 42 26 | 25000 | 10.09 42 30 | 34000 |
| Variable length (please specify) | 10.09 41 56 | | 10.09 41 57 | | 10.09 41 59 | |

Load diagram

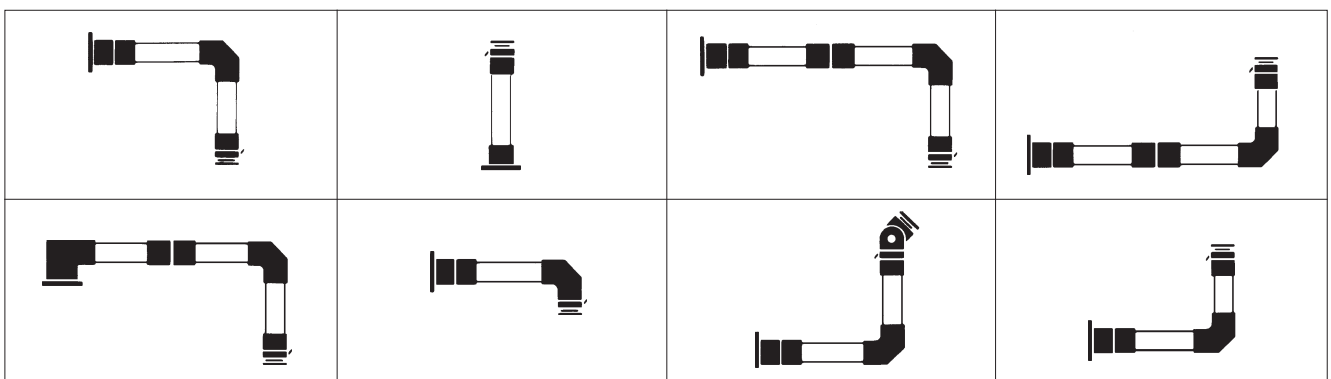


Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!).

Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing.

The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.

System structure



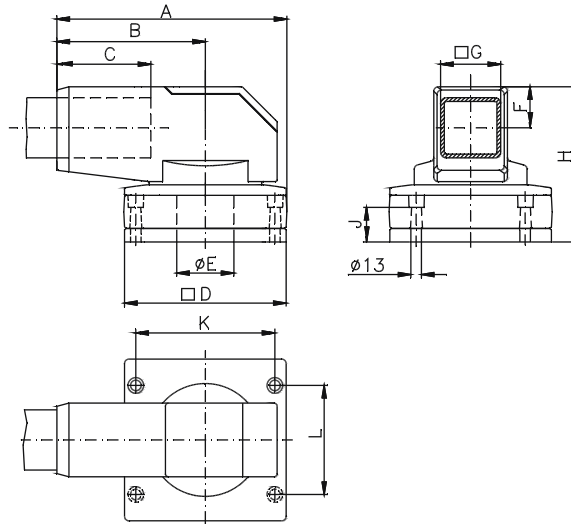
Components

Top-mounted joint



Swivelling range 310°, can be limited from between 0° to 270°, swivel force can be adjusted via bearing screw

| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | J | K | L |
|------|--------------------|------------|-----|-------|-----|-----|----|------|----|-----|----|-----|-----|
| 50/2 | 49.51 66 00 | 12000 | 251 | 160 | 95 | 180 | 50 | 39,5 | 50 | 151 | 35 | 150 | 116 |
| 60/2 | 49.61 66 00 | 16000 | 278 | 179,5 | 110 | 195 | 58 | 44,5 | 60 | 171 | 38 | 165 | 125 |
| 80/2 | 49.81 66 00 | 21000 | 306 | 197,5 | 125 | 215 | 76 | 54,5 | 80 | 206 | 46 | 185 | 145 |

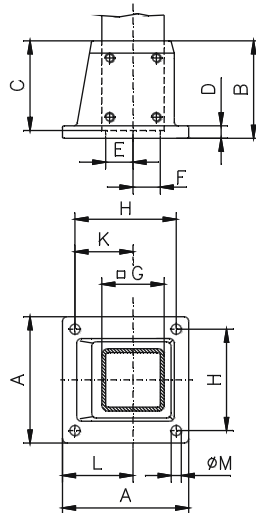


Foot stand



Cast steel element for floor mounting or wall mounting, can be adjusted

| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | K | L | M |
|------|--------------------|------------|-----|-----|-----|----|------|------|----|-----|------|------|----|
| 50/2 | 49.51 74 00 | 2880 | 128 | 90 | 80 | 12 | 20,5 | 19,5 | 40 | 100 | 57 | 71 | 12 |
| 60/2 | 49.61 74 00 | 3650 | 138 | 100 | 90 | 14 | 25,5 | 24,5 | 50 | 110 | 63 | 77 | 12 |
| 80/2 | 49.81 74 00 | 5440 | 162 | 115 | 105 | 16 | 35,5 | 34,5 | 80 | 130 | 74,5 | 90,5 | 14 |



GT50/2 GT60/2 GT80/2

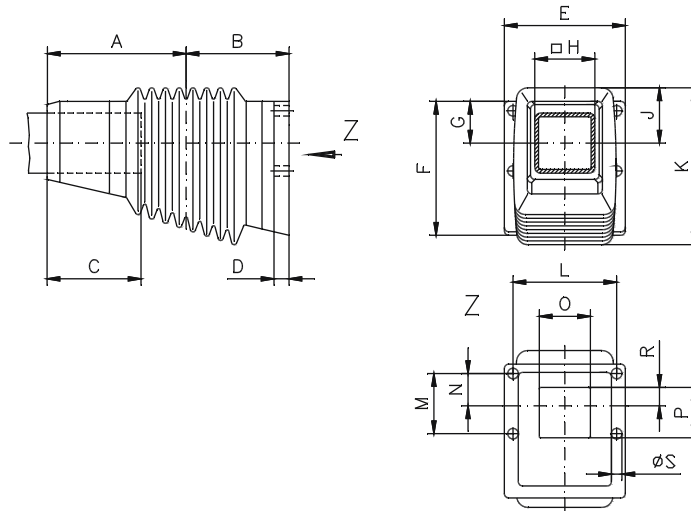
Components

Wall hinge



| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | R | S |
|------|--------------------|------------|-----|-----|-----|----|-----|-----|----|----|----|-----|-----|----|------|----|------|----|----|
| 50/2 | 49.51 70 00 | 5460 | 140 | 90 | 95 | 12 | 132 | 125 | 40 | 50 | 58 | 164 | 107 | 50 | 27,5 | 48 | 35 | 11 | 12 |
| 60/2 | 49.61 70 00 | 7780 | 162 | 102 | 110 | 15 | 140 | 145 | 45 | 60 | 62 | 176 | 115 | 60 | 32,5 | 57 | 44,5 | 15 | 12 |
| 80/2 | 49.81 70 00 | 11000 | 185 | 137 | 125 | 20 | 161 | 178 | 56 | 80 | 75 | 210 | 138 | 80 | 43,5 | 68 | 67 | 25 | 14 |

Swivelling range 180°, can be limited to stepped degrees with stops, swivel force can be adjusted via bearing screw.

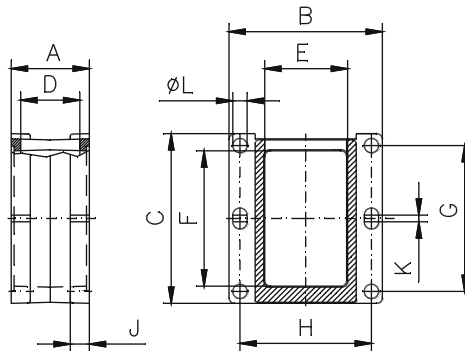


Adapter flange for wall hinge



| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | J | K | L |
|------|--------------------|------------|----|-----|-----|----|----|-----|-----|-----|----|---|----|
| 50/2 | 49.51 79 00 | 2800 | 66 | 132 | 125 | 46 | 57 | 89 | 100 | 107 | 12 | 0 | 12 |
| 60/2 | 49.61 79 00 | 3750 | 72 | 140 | 145 | 52 | 65 | 109 | 120 | 115 | 15 | 0 | 12 |
| 80/2 | 49.81 79 00 | 6020 | 82 | 161 | 178 | 62 | 86 | 142 | 153 | 138 | 20 | 7 | 15 |

Cast steel adapter for mounting between wall hinge and mounting surface

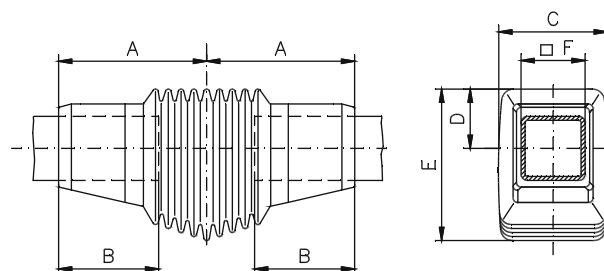


Intermediate joint



| Type | Order No. | Weight (g) | A | B | C | D | E | F |
|------|--------------------|------------|-----|-----|-----|----|-----|----|
| 50/2 | 49.51 67 00 | 5940 | 140 | 95 | 107 | 58 | 152 | 50 |
| 60/2 | 49.61 67 00 | 8370 | 162 | 110 | 114 | 62 | 162 | 60 |
| 80/2 | 49.81 67 00 | 12000 | 185 | 125 | 136 | 75 | 190 | 80 |

Swivelling range 180°, can be limited to stepped degrees with stops, swivel force can be adjusted via bearing screw.



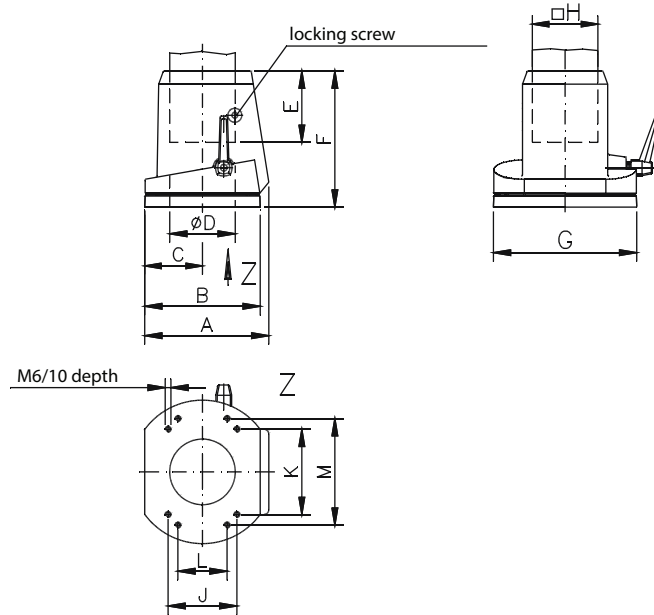
Components

Flange coupling



| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | J | K | L | M |
|------|--------------------|------------|-----|-----|------|----|----|-------|-----|----|----|-----|----|-----|
| 50/2 | 49.51 77 00 | 1890 | 110 | 107 | 53,5 | 48 | 55 | 116 | 131 | 50 | 57 | 77 | - | - |
| 60/2 | 49.61 77 00 | 2600 | 124 | 117 | 59,5 | 58 | 65 | 136,5 | 141 | 60 | 57 | 77 | - | - |
| 80/2 | 49.81 77 00 | 4560 | 151 | 141 | 70,5 | 80 | 87 | 166 | 175 | 80 | 84 | 104 | 60 | 130 |

Swivelling range 325° can be stopped at any point with clamping lever, stops can limit movement in 25° steps

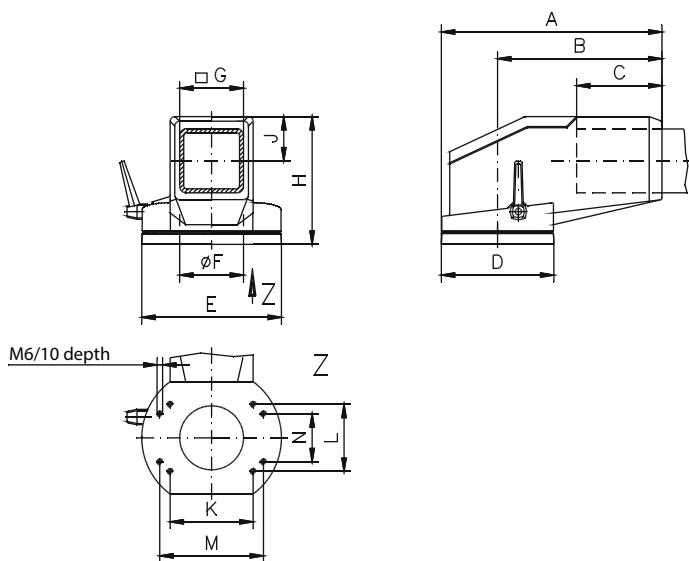


Flange angle coupling



| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | J | K | L | M | N |
|------|--------------------|------------|-------|-----|-----|-----|-----|----|----|-------|------|-----|----|-----|----|
| 50/2 | 49.51 78 00 | 2410 | 187,5 | 134 | 80 | 107 | 131 | 48 | 50 | 117,5 | 39,5 | 77 | 57 | - | - |
| 60/2 | 49.61 78 00 | 3240 | 216,5 | 158 | 90 | 117 | 141 | 58 | 60 | 130,5 | 42,5 | 77 | 57 | - | - |
| 80/2 | 49.81 78 00 | 4610 | 276,5 | 206 | 107 | 141 | 175 | 80 | 80 | 160 | 55,5 | 104 | 84 | 130 | 60 |

Swivelling range 325° can be stopped at any point with clamping lever, stops can limit movement in 25° steps. Angle flange coupling cannot be used as top-mounted joint!



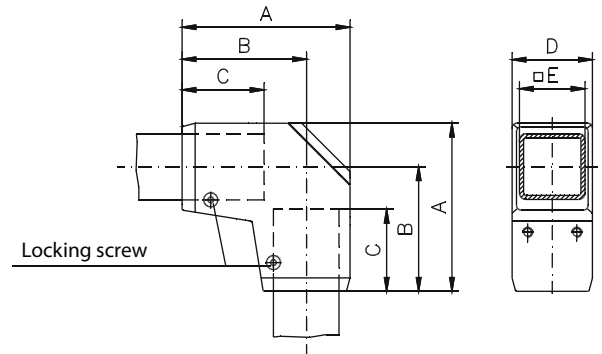
Components

Angle



Cast steel angle joint 90°

| Type | Order No. | Weight (g) | A | B | C | D | E |
|------|--------------------|------------|-----|-----|-----|----|----|
| 50/2 | 49.51 80 00 | 4180 | 154 | 115 | 80 | 74 | 50 |
| 60/2 | 49.61 80 00 | 5630 | 172 | 128 | 90 | 84 | 60 |
| 80/2 | 49.81 80 00 | 7920 | 210 | 157 | 105 | 98 | 80 |

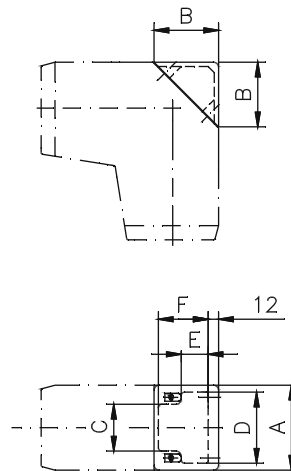


Signal fitting



Cast aluminium part for mounting indicator lights on the angle.

| Type | Order No. | Weight (g) | A | B | C | D | E | F |
|------|--------------------|------------|----|----|----|----|----|----|
| 50/2 | 49.51 80 10 | 211 | 74 | 60 | 36 | 54 | 29 | 38 |
| 60/2 | 49.61 80 10 | 267 | 84 | 65 | 40 | 62 | 32 | 43 |
| 80/2 | 49.81 80 10 | 339 | 98 | 76 | 54 | 82 | 42 | 54 |

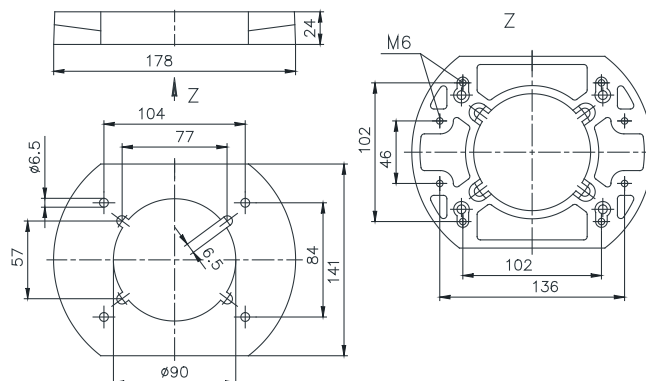


Adapter GTK on GT 80/2; GT 60/2



Order No.

49.81 10 00



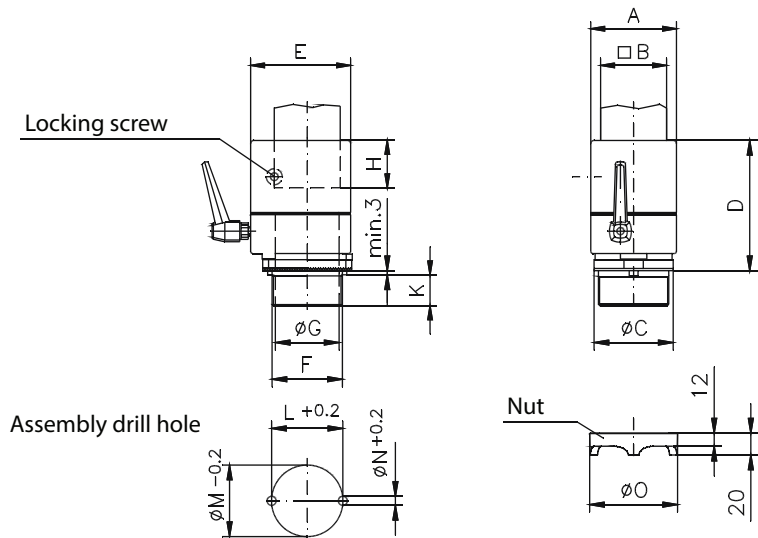
Components

Coupling



Swivelling range 300° can be stopped at any point with clamping lever.

| Type | Order No. | Weight (g) | A | B | C | D | E | F | G | H | K | L | M | N | O |
|------|--------------------|------------|-----|----|-----|-------|-----|---------|----|----|----|------|----|------|-----|
| 80/2 | 49.81 73 00 | 2680 | 104 | 80 | 104 | 145,5 | 115 | M90 x 2 | 80 | 49 | 34 | 90,8 | 91 | 10,2 | 111 |

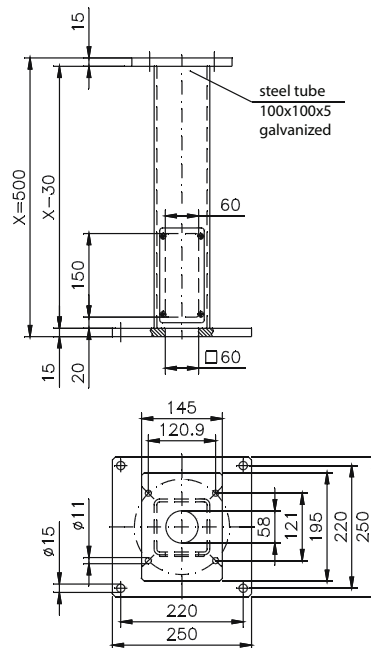


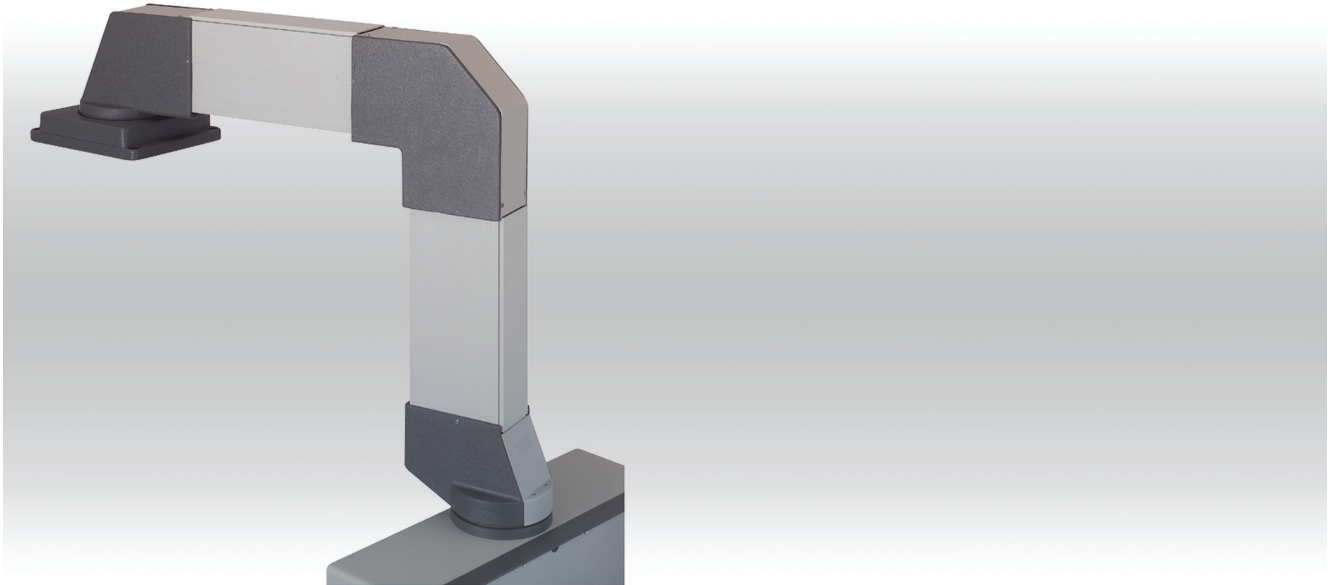
Column



Sheet steel, painted, individual length including adapter plate for top mounted joint. At the base flange outlet max. length 2 m.

| Order No. | | A | B |
|--------------------|--|-----|-----|
| 49.51 00 04 | GT 50/2 (please specify complete length) | 116 | 150 |
| 49.61 00 04 | GT 60/2 (please specify complete length) | 125 | 165 |
| on request | GT 80/2 | | |





- + Industrial square suspension system with free accessible cable channel
- + Modular construction with free accessible cable duct
- + Floor, top-mounting or wall options

Included in delivery

Individual system components incl. cable duct covering and assembly materials

Technical data

| | |
|---------------------------|--|
| Material | Connecting tube: Square ST 37 similar DIN EN 10305-5 wall thickness 5 mm or 8 mm Components: spheroidal graphite cast iron and/or cast aluminium Cable duct / cover: aluminium extruded profile Bearing: ball bearing Bellow: textile fabric |
| Painting | Powder coating |
| Colour | Cable duct / cover: RAL 7035, light grey Components: RAL 7043, traffic grey B, Special colour on request |
| Ingress protection | with top-mounted flange IP 54 to EN 60529 |



GTK 80

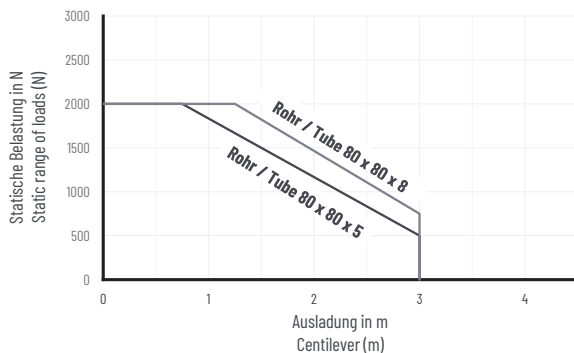
Product range

| Type | Order No. | Weight (g) |
|---------------------------|--------------------|------------|
| Top-mounted joint | 49.90 66 01 | 17000 |
| Foot stand / wall flange | 49.90 74 01 | 6960 |
| Wall hinge | 49.90 70 01 | 19000 |
| Intermediate joint | 49.90 67 01 | 16000 |
| Angle (FH) cast steel | 49.90 71 11 | 11000 |
| Angle (AS) Aluminium | 49.90 71 20 | 3470 |
| Angle coupling | 49.90 75 01 | 5770 |
| Coupling | 49.90 73 01 | 5250 |
| Top-mounted flange type A | 49.90 00 30 | 1330 |
| Top-mounted flange type B | 49.90 00 20 | 1150 |

| | Cable duct (standard length to fit relevant suspension tube) | Weight (g) | Suspension tube 80 x 80 x 5 mm | Weight (g) | Suspension tube 80 x 80 x 8 mm | Weight (g) |
|----------------------------------|--|---------------|-----------------------------------|---------------|-----------------------------------|---------------|
| Standard length: 0,5 m | 10.09 42 35 | 1350 | 10.09 42 27 | 5800 | 10.09 42 31 | 8400 |
| Standard length: 1 m | 10.09 42 36 | 2920 | 10.09 42 28 | 11600 | 10.09 42 32 | 17000 |
| Standard length: 2 m | 10.09 42 37 | 6060 | 10.09 42 29 | 23200 | 10.09 42 33 | 34000 |
| Standard length: 3 m | 10.09 42 38 | 9200 | 10.09 42 30 | 34800 | 10.09 42 34 | 50000 |
| Variable length (please specify) | 10.09 41 65* | | 10.09 41 59 | | 10.09 41 68 | |

* The cable duct needs to be 175 mm shorter than the suspension tube length!

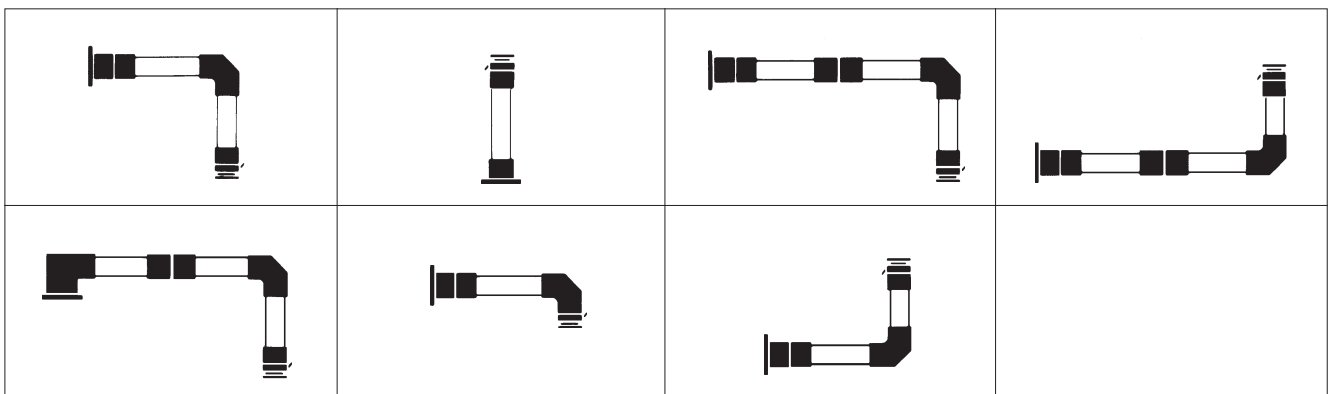
Load diagram



Note: the vertical length of the profile is responsible for the load of the complete suspension system (lever arm!). Further information for this on request. The values in the above load diagram are guilty to an execution hanging or standing.

The declarations of weight are a summary from installation weight, Commander and all components and tubes between Commander and angle.

System structure

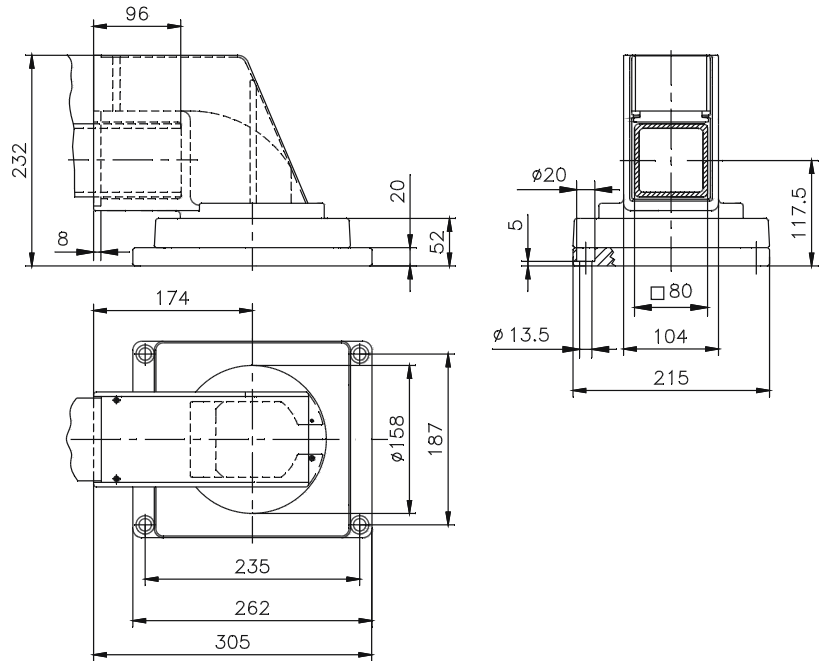


Components

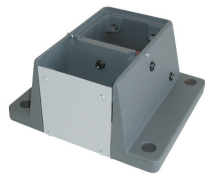
Top-mounted joint



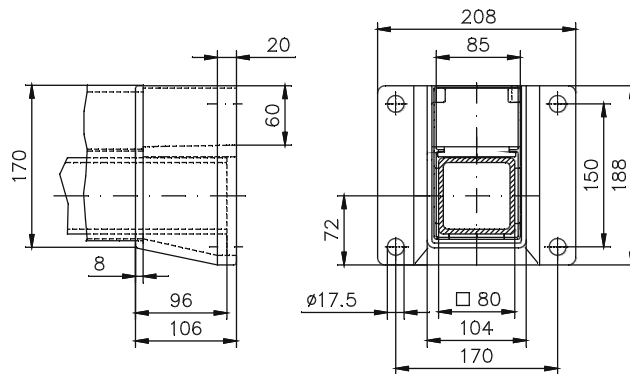
Order No. Execution
49.90 66 01 Cast iron. Swivelling range 360°



Foot stand / wall flange



Order No. Execution
49.90 74 01 Cast iron



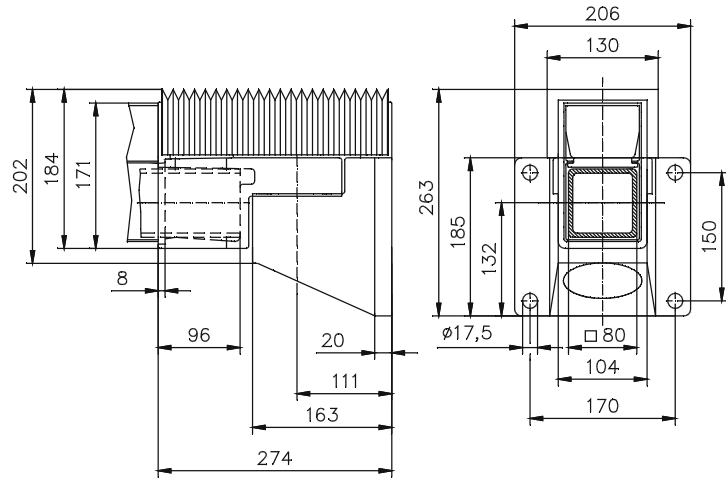
GTK 80

Components

Wall hinge



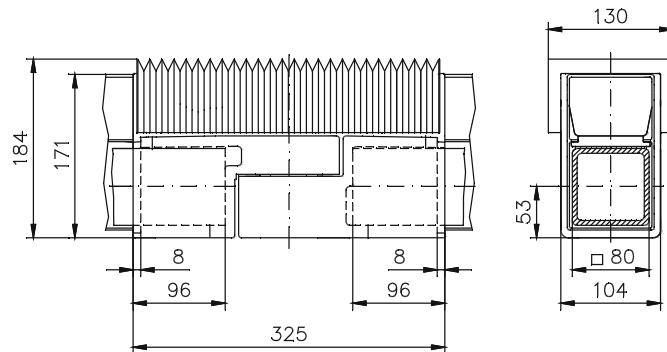
| Order No. | Execution |
|--------------------|----------------------------------|
| 49.44 70 01 | Cast iron. Swivelling range 180° |



Intermediate joint



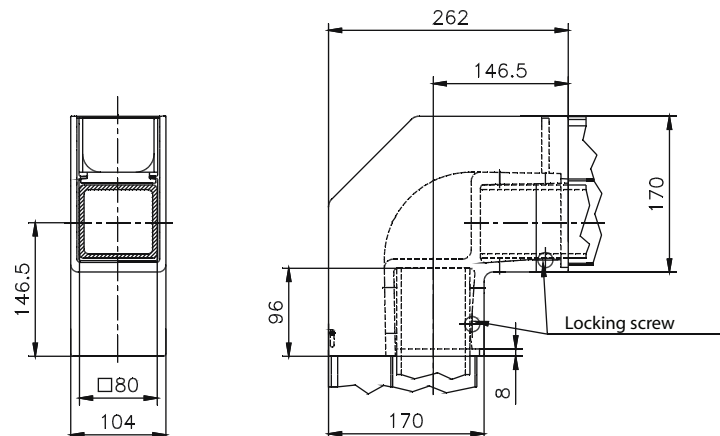
| Order No. | Execution |
|--------------------|----------------------------------|
| 49.90 67 01 | Cast iron. Swivelling range 180° |



Angle (FH)



| Order No. | Execution |
|--------------------|--|
| 49.90 71 11 | Cast iron. 90°-angle for use with high bending loads |



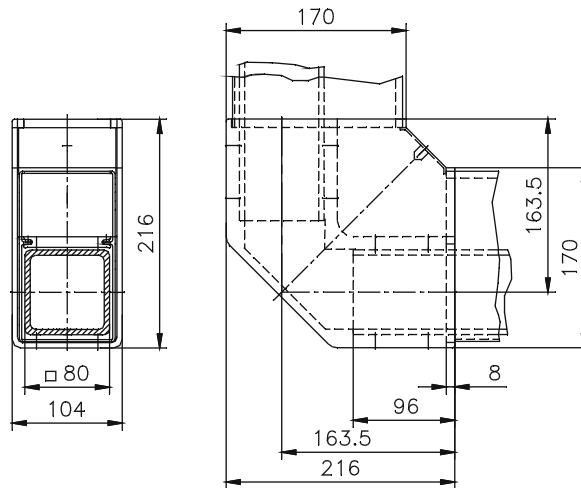
Components

Angle (A5)



Order No.
49.90 71 20

Execution
Cast aluminium. 90°-angle for vertical construction from the bottom up with minimal bending load

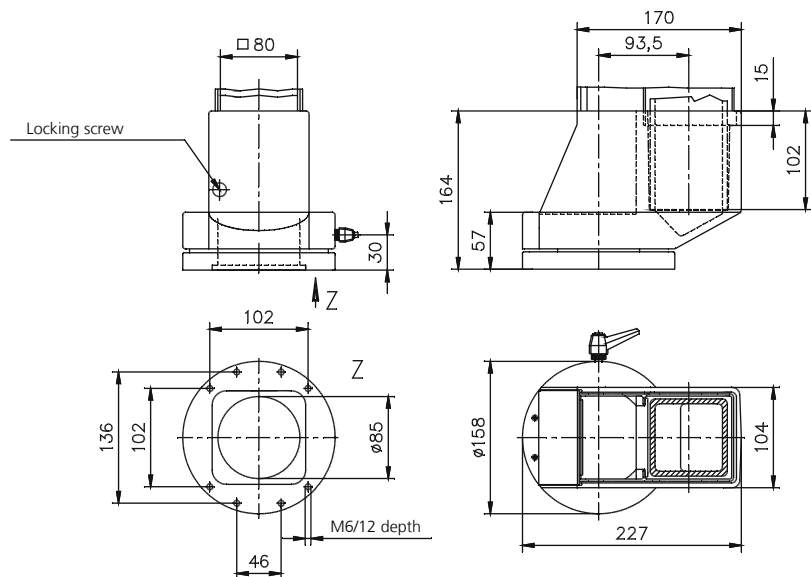


Coupling



Order No.
49.90 73 01

Execution
Cast aluminium. Swivelling range 320°
Lockable with clamping lever.

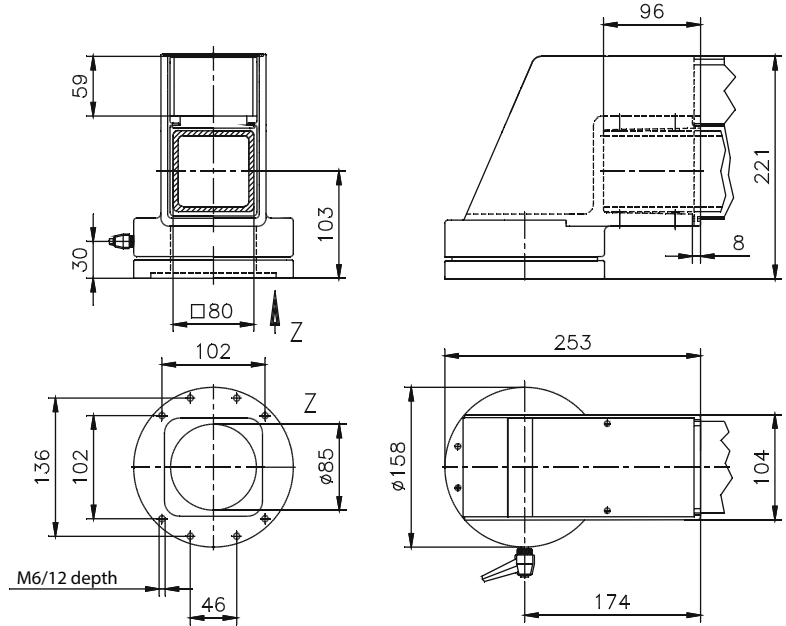


Components

Angle coupling



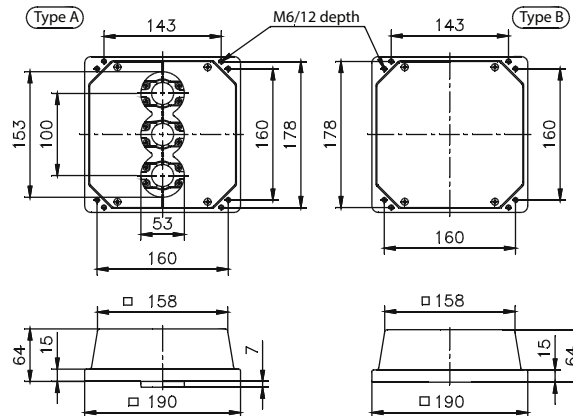
| Order No. | Execution |
|--------------------|--|
| 49.90 75 01 | Cast aluminium. Swivelling range 320°. Lockable with clamping lever. |



Top-mounted flange



| Order No. | Execution |
|--------------------|--|
| 49.90 00 30 | Type A: Cast aluminium Large area mounting on enclosure for maximum 3 ready-made leads with diameters from 7 to 26 mm. Open cable entry. |
| 49.90 00 20 | Type B: Cast aluminium Large area mounting on enclosure for a large number of ready-made leads. Sealed with special cable glands or threaded cable connectors. Open cable entry. |



Fitted in combination with coupling or angle coupling to maintain compliance with enclosure rating IP 65 at transition to control panel.



- + Mobile stand system for control components
- + Optional fixed or manual adjustable versions
- + Version with 2 or 4 roller system

Technische Daten

Material:

Foot: sheet steel

Profile: DIN EN 573 EN AW-ALMgSi

Painting:

Powder coating

Colour:

Profile: RAL 7035, light grey

Foot: RAL 7021, black grey

Max. static load:

35 kg (Moterm 1 and 2)

80 kg (Moterm 4 and 5)

Included in delivery

Moterm with mounted inclination adjuster and adapter plate for commander systems (please order adapter plate separately)

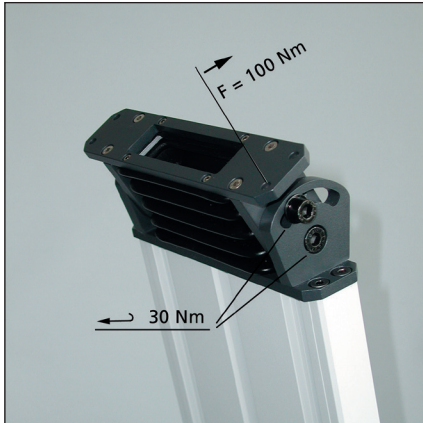


Moterm I

Product range

| Order No. | Type | Height | Description | Weight |
|-------------|----------|-------------------|--------------------------------|--------|
| 50.01 01 01 | Moterm 1 | 1000 mm | fixed version, 2 rollers | 23 |
| 50.01 01 02 | Moterm 2 | 750 mm to 1000 mm | manually adjustable, 2 rollers | 23 |
| 50.01 01 04 | Moterm 4 | 980 mm | fixed version, 4 rollers | 25 |
| 50.01 01 05 | Moterm 5 | 730 mm to 1000 mm | manually adjustable, 4 rollers | 26,5 |

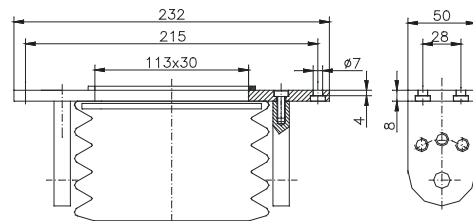
Zubehör



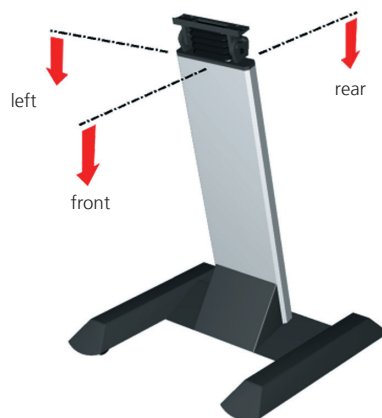
Universal adapter plate on moterm

Adapter plate for connection to the control enclosure

| Order No. | Type |
|-------------|---|
| 50.01 02 03 | Adapter plate SL 2000 profile 1 |
| 50.01 02 04 | Adapter plate SL 2000 profile 2 |
| 50.01 02 05 | Adapter plate SL 2000 profile 3 |
| 50.01 02 06 | Adapter plate SL 3000 profile 1 |
| 50.01 02 07 | Adapter plate SL 3000 profile 2 to 4 |
| 50.01 02 08 | Adapter plate SL 3000 console version |
| 50.01 02 09 | Adapter plate universal (see drawing) |
| 50.01 02 10 | Adapter plate Beckhoff CP 7032 |
| 50.01 02 11 | Adapter plate ComTronic |
| 50.01 02 12 | Adapter plate SL 3000 profile 4 (direct mounting) |
| 50.01 02 14 | Adapter plate SL 4000 profile 1 - 3 |
| 50.01 02 15 | Adapter plate SL 4000 console version |



Load specification Moterm 4 and 5



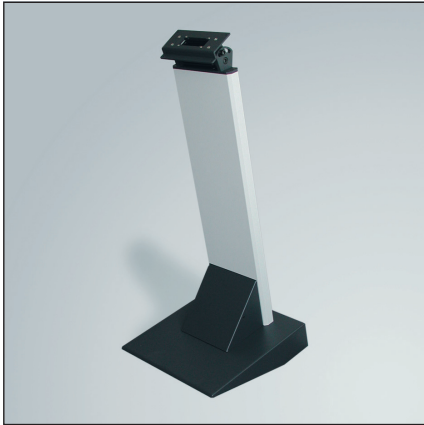
Max. static load capacity: 80 kg

The following table gives details for one-sided or uneven loading of Moterm 4 and 5. Stability on an even surface is guaranteed if these values are maintained.

Load case

| front | | rear | | left/right | |
|-------|---------------|-------|---------------|------------|---------------|
| Load | Working range | Load | Working range | Load | Working range |
| 48 kg | 350 mm | 80 kg | 400 mm | 56 kg | 430 mm |
| 43 kg | 390 mm | 61 kg | 450 mm | 35 kg | 530 mm |
| 33 kg | 430 mm | 45 kg | 500 mm | 17,8 kg | 730 mm |
| 28 kg | 450 mm | | | | |

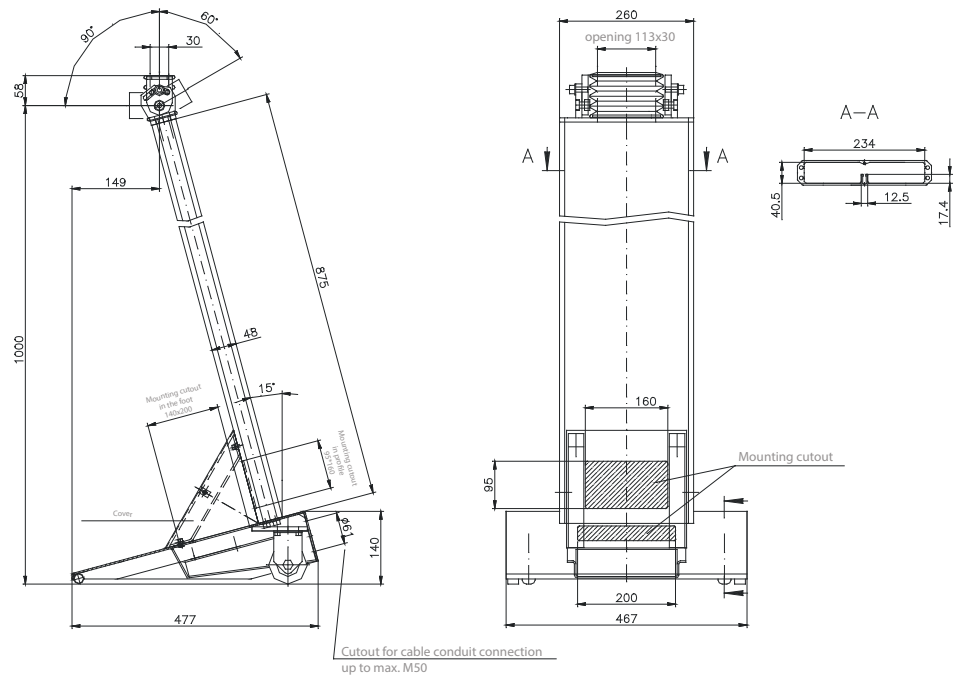
The data relates to a structure height of 960 mm and 0° inclination adjustment.



Moterm 1

Fixed version

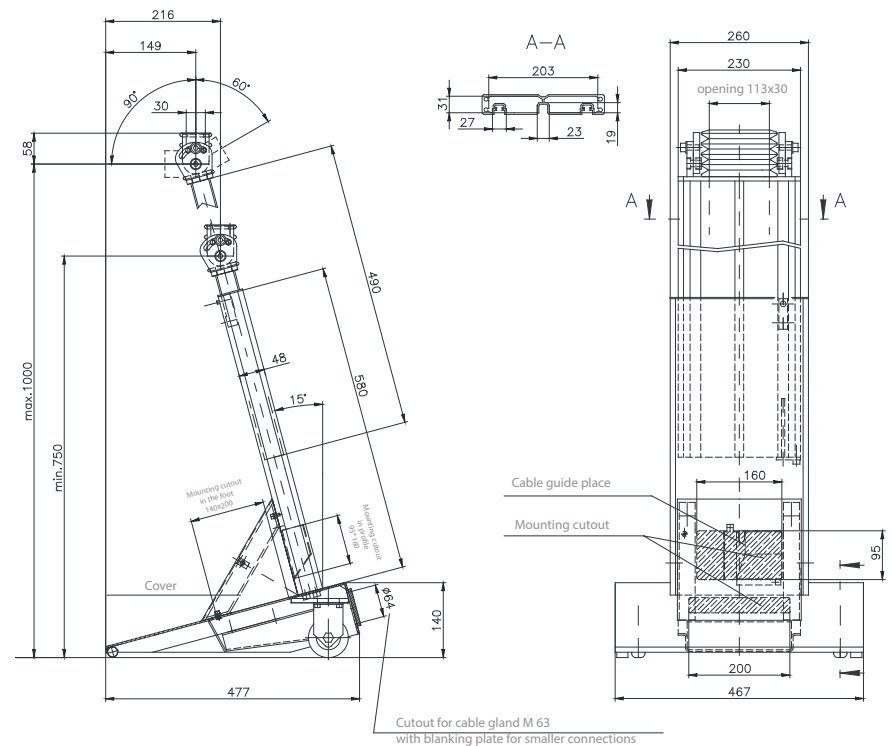
Order No. 50.01 01 01



Moterm 2

Manually adjustable

Order No. 50.01 01 02



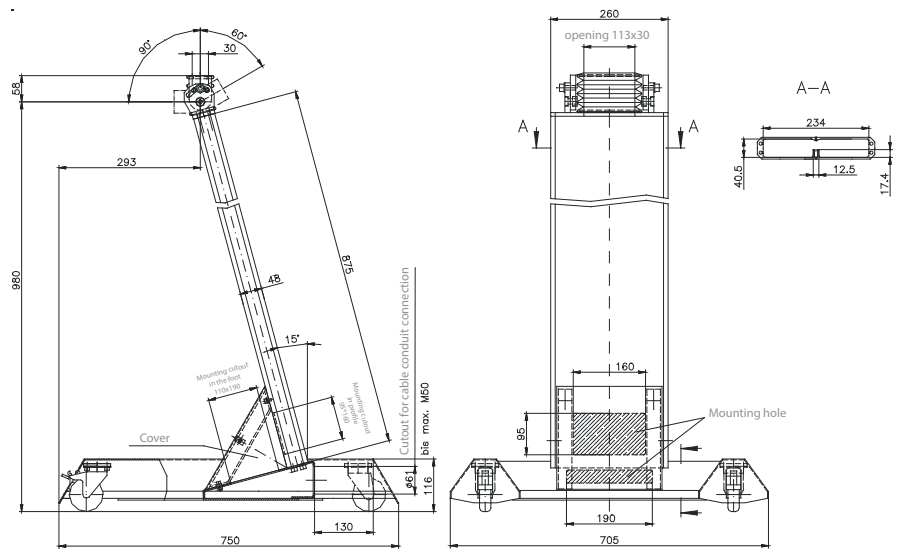
Moterm I



Moterm 4

Fixed version

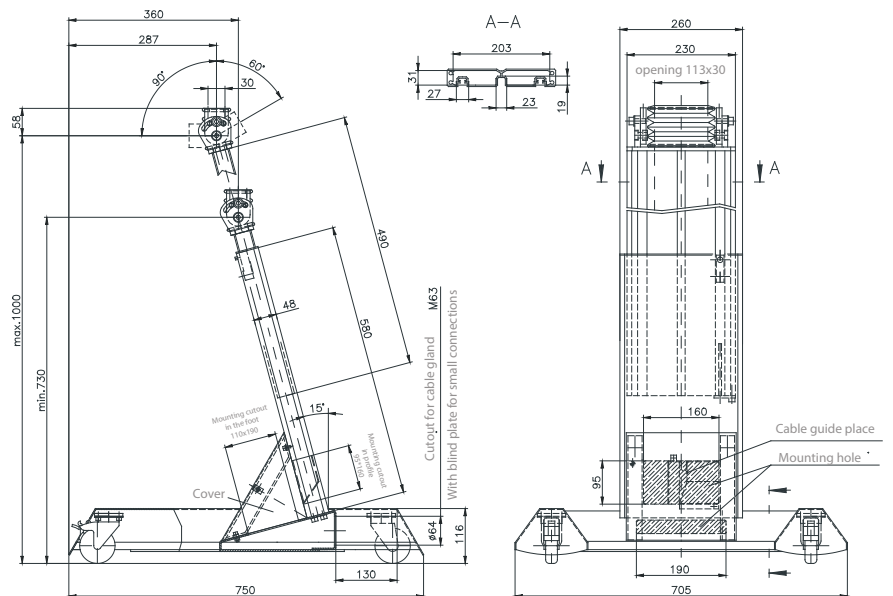
Order No. 50.01 01 04



Moterm 5

Manually adjustable

Order No. 50.01 01 05





- + Mobile stand system for control components
- + Fixed or height-adjustable version with pneumatic spring
- + Version with 4 rollers or with foot stand
- + Optionally foot stand for anchoring

Included in delivery

Moterm with integrated tilt adjustment for adapter plate for control systems
(Please order adapter plate separately)

Technical data

| | |
|----------------------------|--|
| Material | Base and stand profile: Aluminium profile system; DIN EN 573 EN AW-AMgSi |
| Colour | Stand profile: plain anodized, optional powder-coated Base: RAL 9005, jet black |
| Maximum static load | 80 kg |

Moterm II

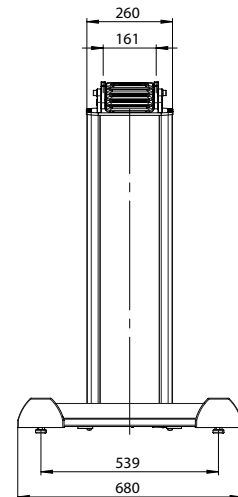
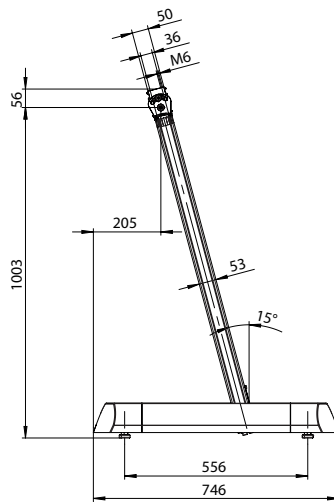
Product range

Moterm x11



Version with levelling feet to adjust for floor irregularities – as a stand system
Version with fixed height (966 mm), other height or base dimensions on request

| Order No. | Type | Height | Execution | Load |
|-------------|------------|------------|-------------------------------|------------|
| 50.01 03 11 | Moterm 311 | 1059 mm | fixed height, with foot stand | 8 - 80 kg |
| 50.01 09 11 | Moterm 911 | customized | fixed height, with foot stand | customized |

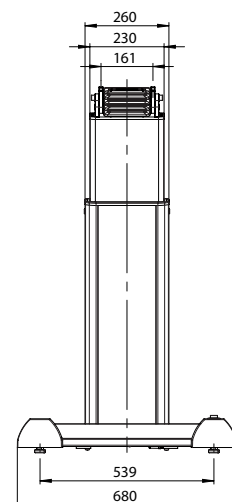
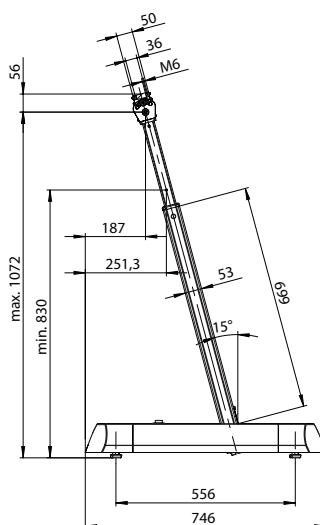


Moterm x12



Version with levelling feet to adjust for floor irregularities – as a stand system
Version with pneumatic spring and release mechanism
Height can be adjusted from 750 mm to 1000 mm
for load ranges from 8 to 50 kg; other load values on request

| Order No. | Type | Height | Execution | Load |
|-------------|------------|-------------------|--------------------------------------|------------|
| 50.01 03 12 | Moterm 312 | 886 mm to 1128 mm | manually adjustable, with food stand | 8 - 15 kg |
| 50.01 04 12 | Moterm 412 | 886 mm to 1128 mm | manually adjustable, with food stand | 16 - 22 kg |
| 50.01 05 12 | Moterm 512 | 886 mm to 1128 mm | manually adjustable, with food stand | 23 - 30 kg |
| 50.01 06 12 | Moterm 612 | 886 mm to 1128 mm | manually adjustable, with food stand | 31 - 40 kg |
| 50.01 07 12 | Moterm 712 | 886 mm to 1128 mm | manually adjustable, with food stand | 41 - 50 kg |
| 50.01 09 12 | Moterm 912 | 886 mm to 1128 mm | manually adjustable, with food stand | customized |



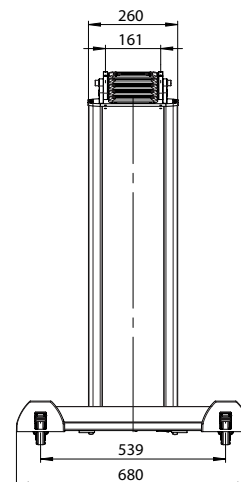
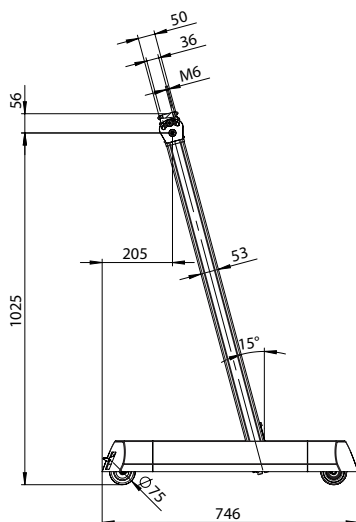
Technical details

Moterm x14



Version with 4 rollers, 2 movable and 2 locking rollers
Version with fixed height (984 mm), other height or base dimensions on request

| Order No. | Type | Height | Execution | Load |
|-------------|------------|--------------------|-------------------------|------------|
| 50.01 03 14 | Moterm 314 | 1081 mm | fixed height, 4 rollers | 8 - 80 kg |
| 50.01 09 14 | Moterm 914 | variable Execution | fixed height, 4 rollers | customized |

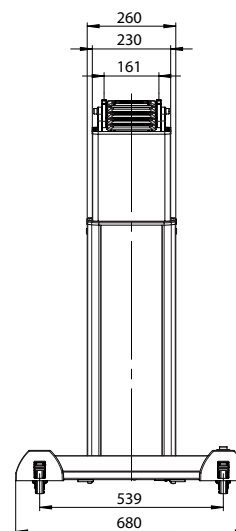
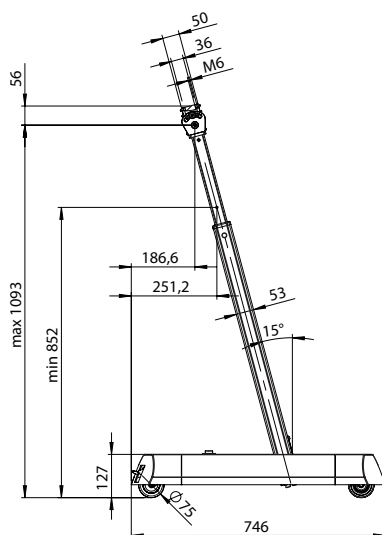


Moterm x15



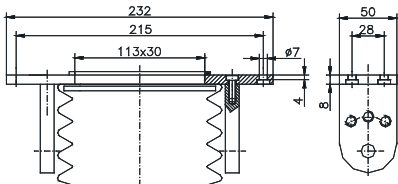
Version with 4 rollers, 2 movable and 2 locking rollers, with pneumatic spring and release mechanism
Height can be adjusted from 750 mm to 1000 mm for load ranges from 8 to 50 kg; other load values on request

| Order No. | Type | Height | Execution | Load |
|-------------|------------|-------------------|--------------------------------|------------|
| 50.01 03 15 | Moterm 315 | 886 mm to 1128 mm | manually adjustable, 4 rollers | 8 - 15 kg |
| 50.01 04 15 | Moterm 415 | 886 mm to 1128 mm | manually adjustable, 4 rollers | 16 - 22 kg |
| 50.01 05 15 | Moterm 515 | 886 mm to 1128 mm | manually adjustable, 4 rollers | 23 - 30 kg |
| 50.01 06 15 | Moterm 615 | 886 mm to 1128 mm | manually adjustable, 4 rollers | 31 - 40 kg |
| 50.01 07 15 | Moterm 715 | 886 mm to 1128 mm | manually adjustable, 4 rollers | 41 - 50 kg |
| 50.01 09 15 | Moterm 915 | 886 mm to 1128 mm | manually adjustable, 4 rollers | customized |



Accessories

Adapter plate for connecting to the control enclosure

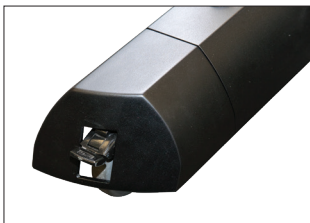


| Order No. | Type |
|-------------|---|
| 50.01 02 03 | Adapter plate SL 2000 Profile 1 |
| 50.01 02 04 | Adapter plate SL 2000 Profile 2 |
| 50.01 02 05 | Adapter plate SL 2000 Profile 3 |
| 50.01 02 06 | Adapter plate SL 3000 Profile 1 |
| 50.01 02 07 | Adapter plate SL 3000 Profile 2 to 4 |
| 50.01 02 08 | Adapter plate SL 3000 console version |
| 50.01 02 09 | Adapter plate universal (s. drawing) |
| 50.01 02 10 | Adapter plate Beckhoff CP 7032 |
| 50.01 02 11 | Adapter plate ComTronic |
| 50.01 02 12 | Adapter plate SL 3000 Profile 4 (direct installation) |
| 50.01 02 14 | Adapter plate SL 4000 Profile 1 - 3 |
| 50.01 02 15 | Adapter plate SL 4000 console version |

Feet for anchoring



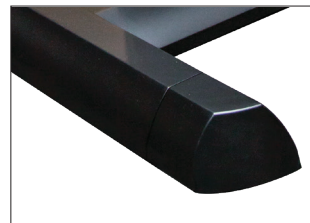
| Order No. | Execution |
|-------------|-------------|
| 50.00 01 01 | Set = 2 pcs |



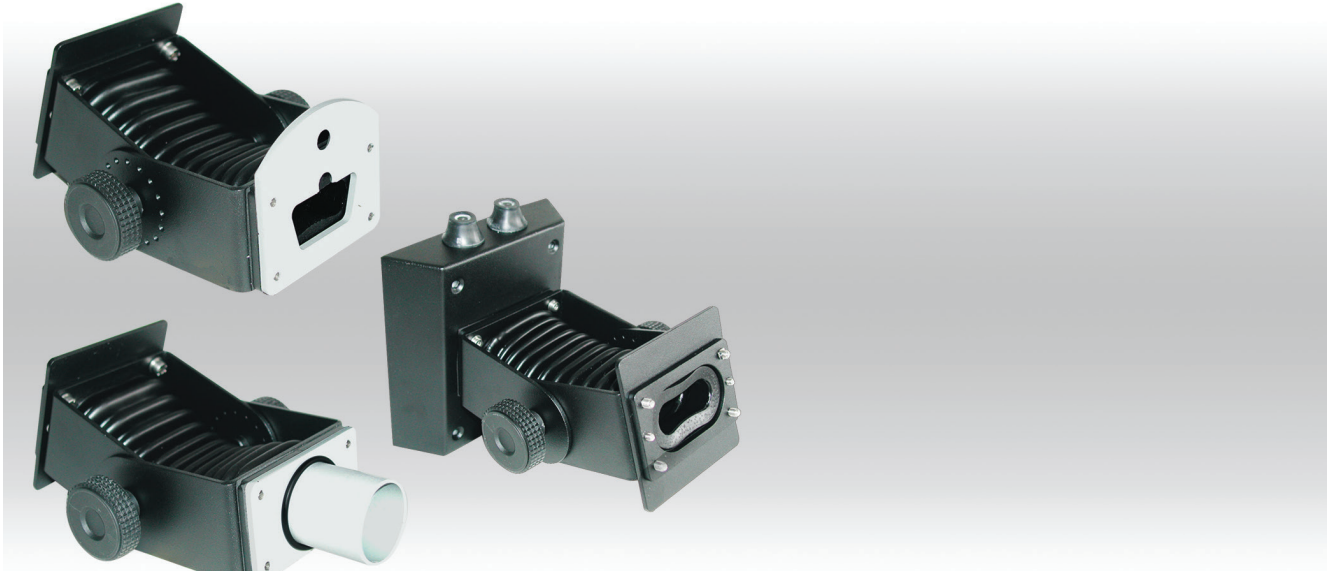
Locking system for version with rollers



Simple adjustment option for height adjustment



Floor attachment with levelling unit (optionally für anchoring)



- + Inclining adapter for individual connections between enclosure and ROSE suspension systems or for wall mounting
- + Simply handling by open design
- + Stepped adjuster allows inclination to suit your application

Included in delivery

Inclining adapter, pre-assembled flange plates, sealings and mounting material

Technical data

| | |
|---------------------------|--|
| Material | Sheet steel 2,5 mm Bellow: PVC |
| Colour | Powder coating, RAL 9005, jet black Bellow: RAL 9005, jet black |
| Ingress protection | IP 54 |



Inclining adapter

Product range

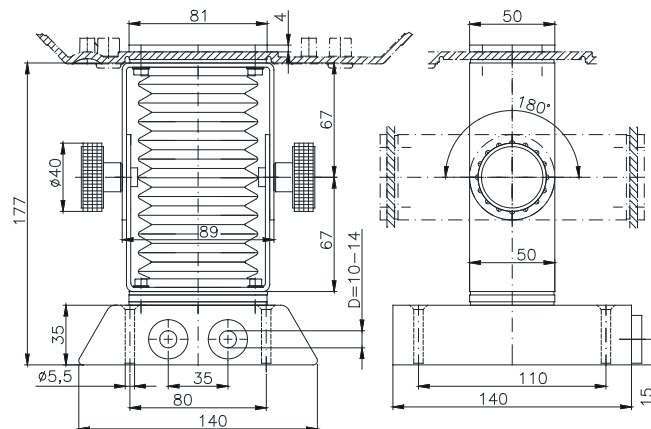
| for Limanda and other small enclosures | Order No. | Weight (g) |
|---|--------------------|------------|
| Inclining adapter for mounting onto walls or machine | 50.02 00 01 | 1286 |
| Inclining adapter for suspension system GT 48/2 (tube) | 50.02 00 02 | 986 |
| Inclining adapter for suspension system GTK electronic | 50.02 00 03 | 1004 |
| Inclining adapter for suspension system GT 48/2 or GTK electronic | 50.02 00 04 | 900 |
| Inclining adjustment | 50.02 01 01 | 1050 |
| Inclining adapter stainless steel | 50.02 10 01 | 1286 |

Technical details

Inclining adapter



| Order No. | Execution |
|--------------------|--|
| 50.02 00 01 | for mounting onto wall or machine Sheet steel parts for inclined mounting of a Limanda or other enclosure. Two cable exits optionally top or bottom with rubber nozzles. Dust and damp protection by bellow (black). Enclosure rating IP 54 up to fastening flange. Swivelling range 180° in 22.5° steps, adjusted with knurled screw. |



Technical details

Inclining adapter for GT 48/2 (tube)

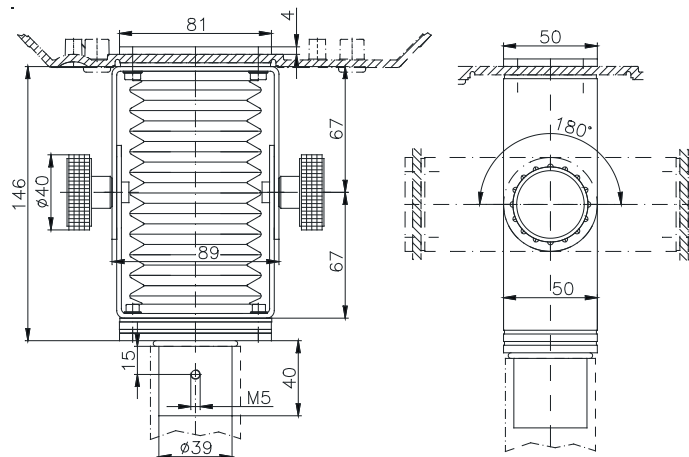


Order No.

Execution

50.02 00 02

Sheet steel parts for inclined mounting of a Limanda or other enclosure. Mounted directly onto the circular tube of the GT 48/2 rack system. Fastened to the tube via olive rings (the thread in the circular tube is attached afterwards). Enclosure rating IP 54 once assembled. Dust and damp protection by bellow (black). Swivelling range 180° in 22.5° steps, adjusted with knurled screw.



Inclining adapter for GTK electronic

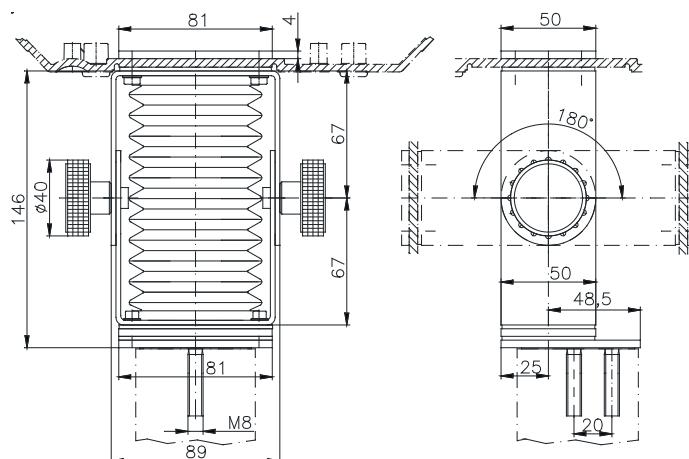


Order No.

Execution

50.02 00 03

Sheet steel parts for inclined mounting of a Limanda or other enclosure. Mounted directly onto the connecting tube of the GTK electronic rack system. Flange mounted onto tube with self-tapping screws. Enclosure rating IP 54 once assembled. Dust and damp protection by bellow (black). Swivelling range 180° in 22.5° steps, adjusted with knurled screw.



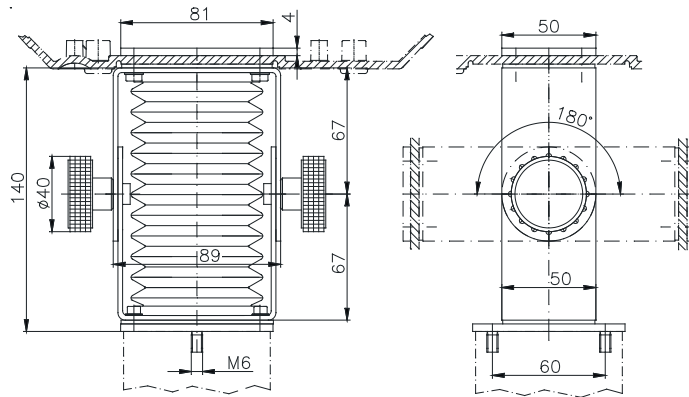
Inclining adapter

Technical details

Inclining adapter for GT 48/2 or GTK electronic



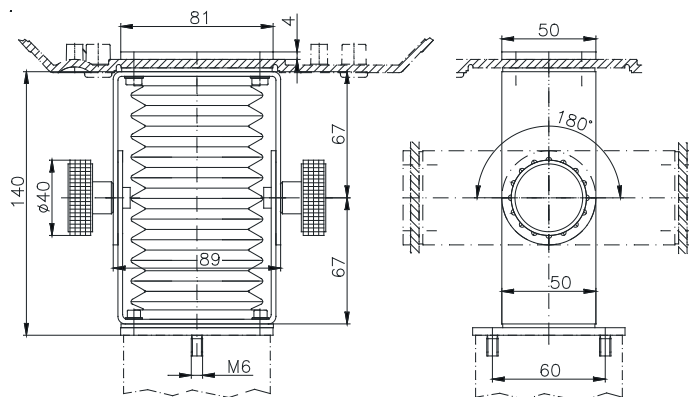
| Order No. | Execution |
|--------------------|---|
| 50.02 00 04 | Sheet steel parts for inclined mounting of a Limanda or other enclosure. Attached to the GT 48/2 or GTK electronic rack system flange coupling with flange plate. Enclosure rating IP 54 once assembled. Dust and damp protection by bellow (black). Swivelling range 180° in 22.5° steps, adjusted with knurled screw. |



Inclining adapter stainless steel



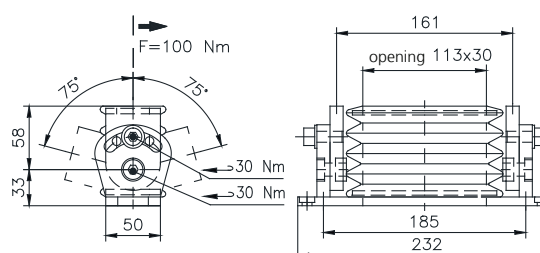
| Order No. | Execution |
|--------------------|---|
| 50.02 10 01 | parts for inclined mounting of a Limanda or other enclosure. Attached to the GT 48/2 or GTK electronic rack system flange coupling with flange plate. Enclosure rating IP 54 once assembled. Dust and damp protection by bellow (black). Swivelling range 180° in 22.5° steps, adjusted with knurled screw. |



Inclining adjustment



| Order No. | Execution |
|--------------------|--|
| 50.02 01 01 | Continuously variable inclining system (+/- 75°) for Commander systems. System consisting in aluminium elements with bellow. Scope of supply: base unit without adaptation plate |





- + Polyamide hand held enclosures for data acquisition, MCR and automation engineering
- + For installations and command devices mobile and stationary applicable
- + Variable mounting depths

Included in delivery

Clam shell enclosure with top and base, each with fixing domes incl. seals and border profile, 3 cover flaps for interface garages, screws and fixing materials for front panel mounting.

Technical data

| | |
|---------------------------|--|
| Material | Enclosure: Polyamide Border profile: NBR, black |
| Colour | RAL 7021, black grey |
| Ingress protection | IP 65 to EN 60529 |
| Flammability | UL 94 V-2 |
| Surface resistance | 10 ¹¹ Ohm, IEC 60093 |
| Temperature range | -20° C to +60° C |



Limanda

Product range

| Order No. | Type | Dimensions (mm) H x W x D | Weight (g) |
|--------------------|--------------------|------------------------------|------------|
| 27.03 03 00 | Limanda I | 311 x 281 x 72 | 1200 |
| 27.03 03 01 | Limanda I EMC | 311 x 281 x 72 | 1200 |
| 27.03 03 17 | Limanda I for OP17 | 311 x 281 x 97 | 1500 |
| 27.03 02 00 | Limanda II | 270 x 248 x 64 | 800 |
| 27.03 02 01 | Limanda II EMC | 270 x 248 x 64 | 800 |



Limanda enclosure system for installation of different hand held operator panels.



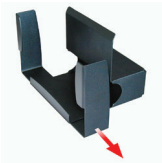
Limanda I for OP17 - Supplied ready for installation of the Siemens OP17 operator panel without additional fitting material.



Limanda II with fitted command unit

Accessories

Quiver



| Order No. | Execution |
|--------------------|--|
| 27.03 00 89 | for Limanda II |
| 27.03 00 91 | for Limanda II with intermediate frame |
| 27.03 00 86 | for Limanda I |
| 27.03 00 90 | for Limanda I with intermediate frame |

Front plate



| Order No. | Execution |
|--------------------|--------------------|
| 27.03 02 90 | for Limanda II EMC |
| 27.03 03 90 | for Limanda I EMC |
| 27.03 02 80 | for Limanda II |
| 27.03 03 80 | for Limanda I |

Handle set



| Order No. | Execution |
|--------------------|---|
| 27.03 00 83 | for Limanda I without push button |
| 27.03 00 71 | for Limanda I with 3-step enabling switch, right-hand version |
| 27.03 00 72 | for Limanda I with 3-step enabling switch, left-hand version |

Accessories

Mounting set

| Order No. | Execution |
|--------------------|---------------------------|
| 27.03 02 82 | for Siemens TP 170/ TP070 |

Inclining adapter for holder



| Order No. | Execution | Weight (g) |
|--------------------|---|------------|
| 50.02 00 05 | Mounting directly onto tube GT 48/2 | 776 |
| 50.02 00 06 | Mounting directly onto profile GTK electronic | 804 |
| 50.02 00 07 | Mounting directly on wall or machine | 490 |

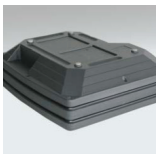
Carrying strap



Carrying strap in 2 Executions: Standard execution and comfort execution: strengthened execution with shoulder pad

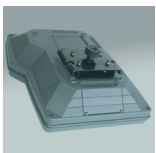
| Order No. | Execution |
|--------------------|----------------------|
| 27.03 00 85 | for Limanda |
| 27.03 00 92 | for Limanda, Comfort |

Intermediate frame



| Order No. | Execution |
|--------------------|--------------------|
| 27.03 02 88 | for Limanda II EMC |
| 27.03 00 88 | for Limanda I EMC |
| 27.03 02 81 | for Limanda II |
| 27.03 03 81 | for Limanda I |

Holder



| Order No. | Execution |
|--------------------|---|
| 27.03 00 84 | Enables rapid removal of the Limanda from the inclining adapter (for Limanda I and II). There is a gap of 19.5 mm between the Limanda and the holder for assembly purposes. |

Cable connection with bending protection



| Order No. | Execution |
|--------------------|-----------|
| 08.10 01 16 | M6 |
| 08.10 01 20 | M20 |
| 08.10 01 25 | M25 |

Further accessories see chapter „Electro-mechanical components“

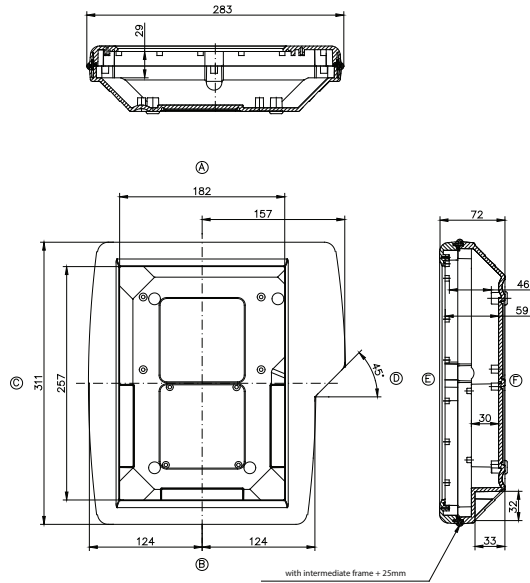


Limanda

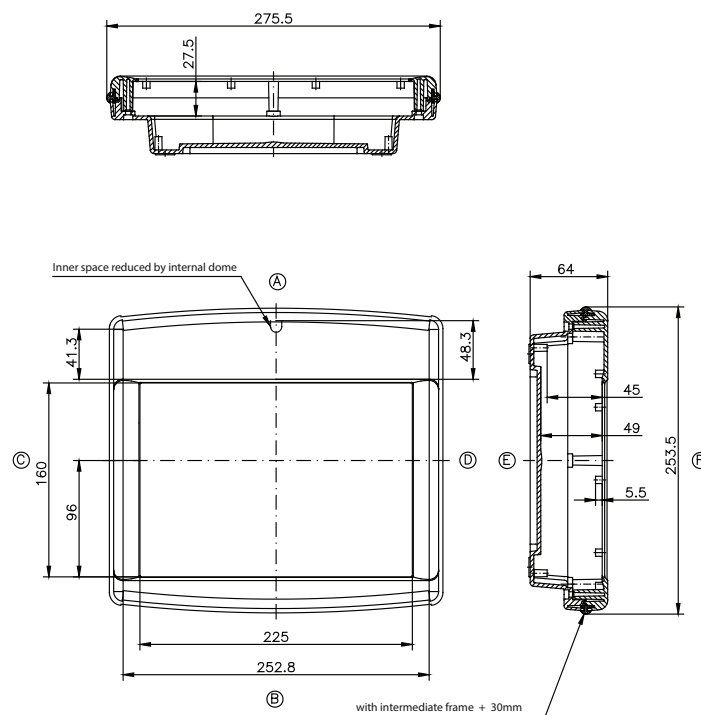
Technical details

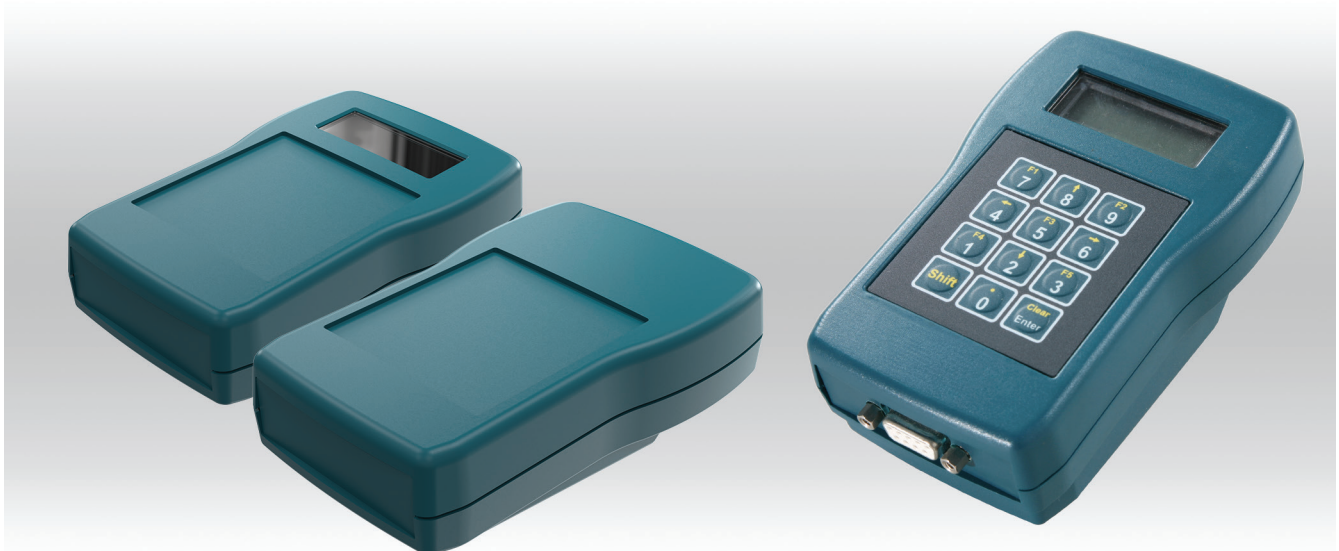


Limanda I
Order No. **27.03 03 00**



Limanda II
Order No. **27.03 02 00**





- + ABS hand held enclosure for data acquisition and measurement
- + With integrated battery compartment
- + Execution with or without display opening
- + Optional EMC Execution with internal coating

Included in delivery

5-part enclosure with top and base, battery compartment, battery compartment cover, head and shaft cover, fixing and enclosure screws. Open Execution incl. display screen and punched seal.

Technical data

| | |
|---------------------------|--|
| Material | ABS |
| Ingress protection | IP 40 to EN 60529 |
| Surface resistance | 4x10 ¹⁴ Ohm, IEC 60093 |
| Flammability | UL 94 HB |
| Colour | top and base, battery compartment cover, head/shaft panel: RAL 5020, ocean blue keyboard cover, battery compartment/battery pack: RAL 7024, graphite grey |
| Temperature range | -40 °C to +80 °C |



Taguan 130

Product range

| Type | Order No. | Execution | Dimensions H x W x D (mm) | Weight (g) |
|---------------|--------------------|--------------|------------------------------|------------|
| Taguan 130 FO | 27.01 02 00 | flat, open | 80/70 x 125 x 36,7 / 28,5 | 130 |
| Taguan 130 FG | 27.01 02 01 | flat, closed | 80/70 x 125 x 36,7 / 28,5 | 110 |
| Taguan 130 TO | 27.01 02 10 | deep, open | 80/70 x 125 x 46,7 / 28,5 | 123 |
| Taguan 130 TG | 27.01 02 11 | deep, closed | 80/70 x 125 x 46,7 / 28,5 | 140 |

Components mounting options

| Component options | Type T130 FO | Type T130 FG | Type T130 TO | Type T130 TG |
|--|--------------|--------------|--------------|--------------|
| Display max. view area 45 x 17,4 mm max. mounting dimensions 65 x 29 mm | • | | • | |
| Chipcard reader in head section | • | • | • | • |
| Scanner | • | • | • | • |
| PCMCIA slot | • | • | • | • |
| D-Sub interface 9-pin | • | • | • | • |
| D-Sub interface 15-pin | • | • | • | • |
| 9 V monobloc | • | • | • | • |
| 4 R3 micro-cells (AAA) | • | • | • | • |
| 1. PCB (main board) | • | • | • | • |
| 2. PCB (adapter board) | | | • | • |
| Membrane keypad | • | • | • | • |

Accessories

Battery holder



| Order No. | Execution |
|--------------------|-------------------------|
| 27.01 02 80 | for 4 micro-cells (AAA) |
| 27.01 02 81 | for 9 V monobloc |

Shaft cover



| Order No. | Execution |
|--------------------|---------------------------------|
| 27.01 02 85 | Shaft cover in enclosure colour |
| 27.01 02 86 | Shaft cover transparent |
| 27.01 02 87 | Shaft cover for infrared |

Clip



| Order No. |
|--------------------|
| 27.01 02 82 |

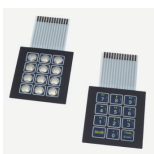
Spare screw set

| Order No. | |
|--------------------|--------|
| 27.01 00 90 | Taguan |

Spare display screen set

| Order No. | |
|--------------------|------------|
| 27.01 02 88 | Taguan 130 |

Keypad



| Order No. | Execution |
|--------------------|--|
| 82.10 00 01 | FT 130b, 12 keys, printed, common connection |
| 82.10 00 02 | FT 130e, 12 keys, with insert, matrix |

Connector

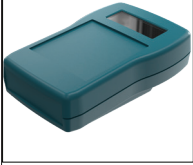
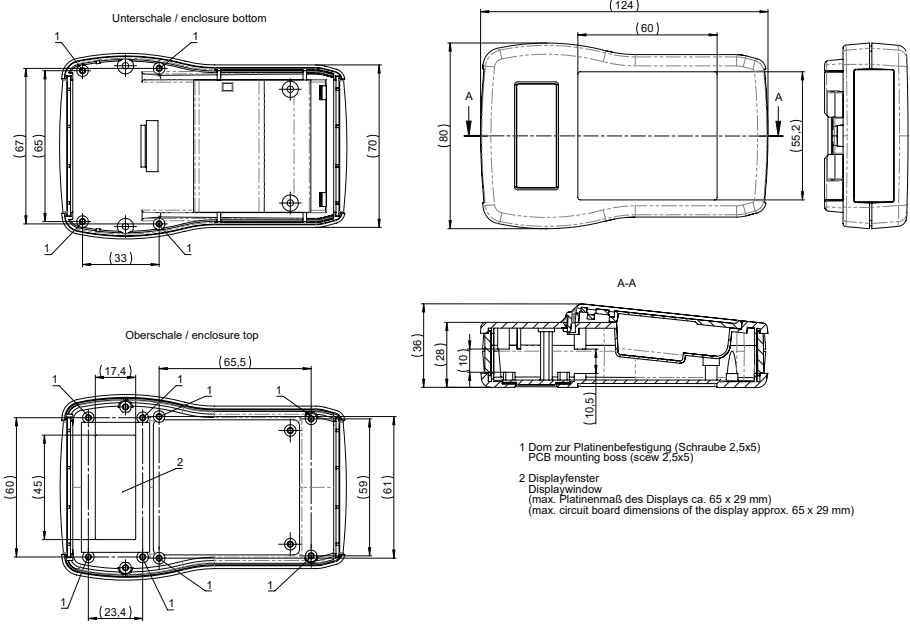
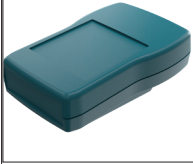
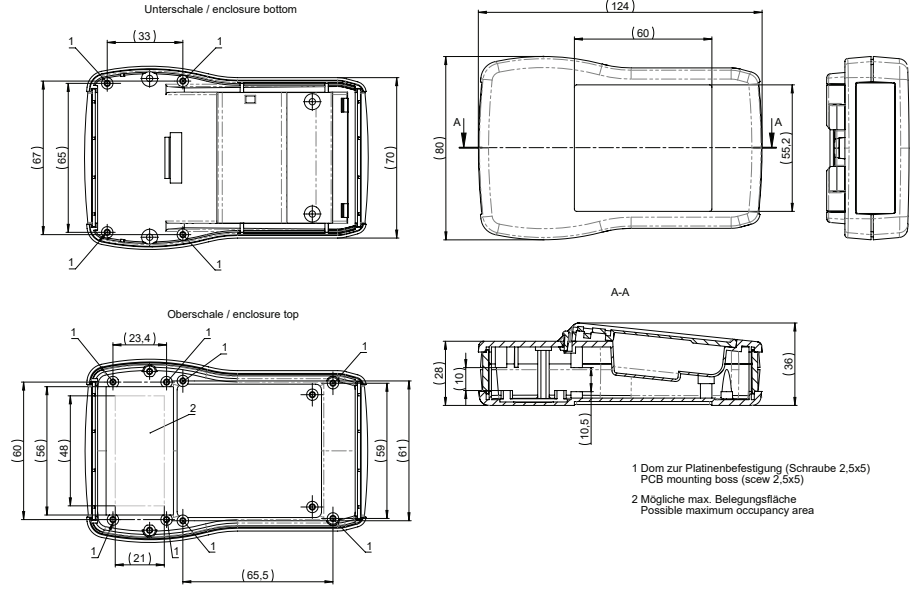
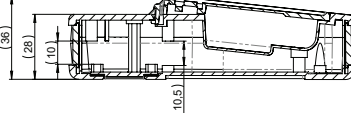
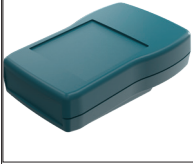
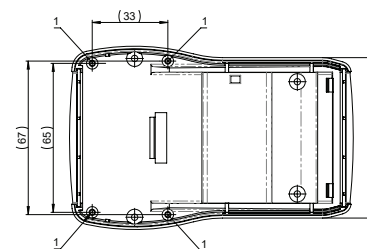
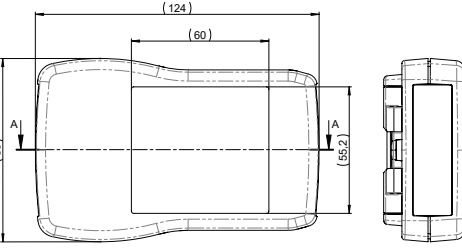
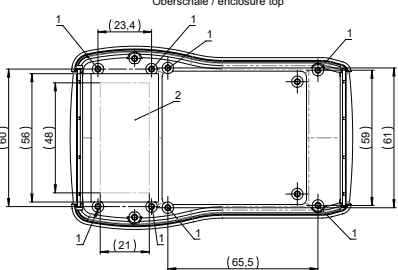
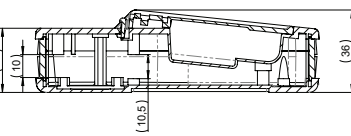
| Order No. | Execution |
|--------------------|-----------|
| 82.20 00 13 | 13-pole |

Further accessories see chapter „Electro-mechanical components“

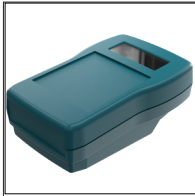


Taguan 130

Technical details

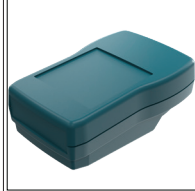
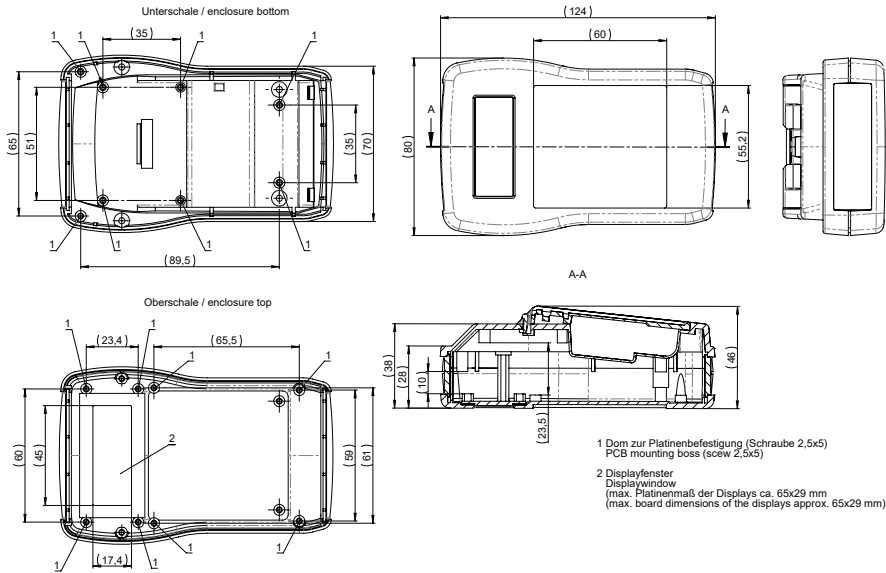
| | | | |
|---|-------------------------------|-----------------------------------|---|
|  | <p>Type Taguan 130 FO</p> | <p>Execution flat, open</p> | <p>Order No. 27.01 02 00</p> |
| <p>(max. PCB size of displays ca. 65 x 29 mm)</p> | | | |
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Unterschale / enclosure bottom</p>  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Oberschale / enclosure top</p>  </div> <div style="text-align: center;"> <p>A-A</p>  </div> </div> <div style="margin-top: 10px;"> <p>1 Dom zur Platinenbefestigung (Schraube 2,5x5) PCB mounting boss (screw 2,5x5)</p> <p>2 Displayfenster Displaywindow (max. Platinenmaß des Displays ca. 65 x 29 mm) (max. circuit board dimensions of the display approx. 65 x 29 mm)</p> </div> | | | |
|  | <p>Type Taguan 130 FG</p> | <p>Execution flat, closed</p> | <p>Order No. 27.01 02 01</p> |
| <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Unterschale / enclosure bottom</p>  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Oberschale / enclosure top</p>  </div> <div style="text-align: center;"> <p>A-A</p>  </div> </div> <div style="margin-top: 10px;"> <p>1 Dom zur Platinenbefestigung (Schraube 2,5x5) PCB mounting boss (screw 2,5x5)</p> <p>2 Mögliche max. Belegungsfläche Possible maximum occupancy area</p> </div> | | | |

Accessories

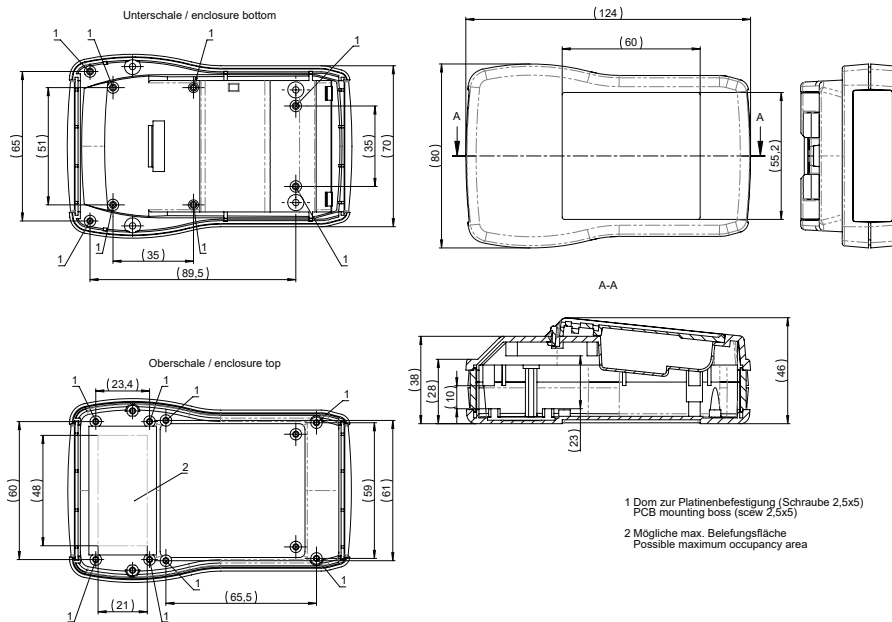


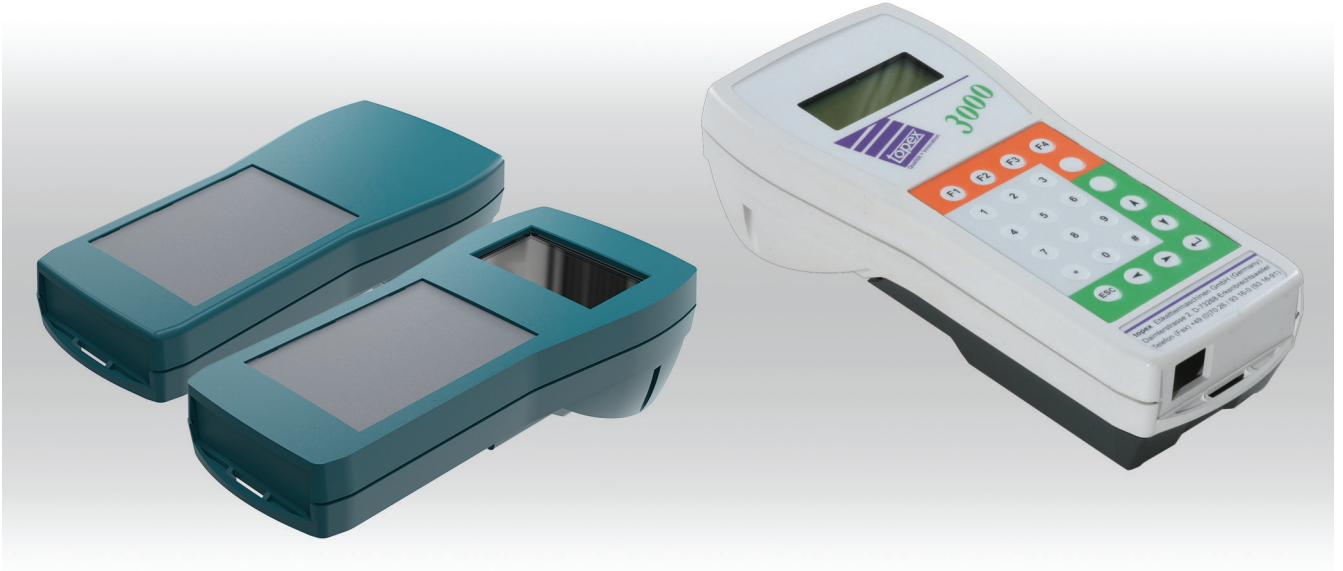
| Type | Execution | Order No. |
|---------------|------------|--------------------|
| Taguan 130 TO | deep, open | 27.01 02 10 |

(max. PCB size of displays ca. 65 x 29 mm)



| Type | Execution | Order No. |
|---------------|--------------|--------------------|
| Taguan 130 TG | deep, closed | 27.01 02 11 |





- + ABS hand held enclosure for data acquisition and measurement
- + With integrated battery compartment
- + Execution with or without display openings
- + Optional EMC Execution with internal coating

Included in delivery

Enclosure with top and base, keypad cover, head and shaft cover, fastening and enclosure screws. Open Execution incl. display screen and punched seal.
Please order battery compartment separately.

Technical data

| | |
|---------------------------|--|
| Material | ABS |
| Ingress protection | IP 40 to EN 60529 |
| Surface resistance | 4x10 ¹⁴ Ohm, IEC 60093 |
| Flammability | UL 94 HB |
| Colour | top and base, battery compartment cover, head/shaft cover: RAL 5020, ocean blue keyboard cover, battery compartment/battery pack: RAL 7024, graphite grey |
| Temperature range | -40 °C to +80 °C |

Product range

| Type | Order No. | Execution | Dimensions H x W x D (mm) | Weight (g) |
|--------------|--------------------|-----------|------------------------------|---------------|
| Taguan 180 O | 27.01 04 00 | open | 84/70 x 180 x 53,5/38,5 | 140 |
| Taguan 180 G | 27.01 04 01 | closed | 84/70 x 180 x 53,5/38,5 | 170 |
| Taguan 230 O | 27.01 06 00 | open | 97/70 x 229 x 53,5/38,5 | 230 |
| Taguan 230 G | 27.01 06 01 | closed | 97/70 x 229 x 53,5/38,5 | 400 |

Components mounting options

| Component options | Type T180 O | Type T180 G | Type T230 O | Type T230 G |
|--|-------------|-------------|-------------|-------------|
| Display (max. view area 56 x 33 mm; max. mounting dimensions 66 x 46 mm) | • | | | |
| Display (max. view area 66 x 43 mm; max. mounting dimensions 78 x 56 mm) | | | • | |
| Chipcard reader in head section | • | • | • | • |
| Chipcard reader in shaft section | • | • | • | • |
| Magnetic card reader | • | • | • | • |
| Scanner | • | • | • | • |
| PCMCIA slot | • | • | • | • |
| D-Sub interface 9-pin | • | • | • | • |
| D-Sub interface 15-pin | • | • | • | • |
| D-Sub interface 25-pin | • | • | • | • |
| Battery pack | • | • | • | • |
| 4 micro-cells R6 (AA) | • | • | • | • |
| 9 V monobloc | • | • | • | • |
| 1st board (main board) | • | • | • | • |
| 2nd board (adapter board) | • | • | • | • |
| Membrane keypad | • | • | • | • |
| Switching mat, 12 keys, in combination with keypad plate | • | • | • | • |
| Switching mat, 24 keys | • | • | | |
| Switching mat, 36 keys | | | • | • |



Accessories

Battery holder



Order No.

27.01 00 94

Battery compartment empty



Order No.

27.01 00 80

Execution

for 4 micro-cells (AA)

Battery charging station



Order No.

27.20 00 01

Rechargeable battery pack



Order No.

27.20 00 03

Execution

NiMH 4.8 V / 2100 mAh

Blende



Order No.

27.01 02 85

Execution

Shaft cover, in enclosure colour

27.01 02 86

Shaft cover, transparent

27.01 02 87

Shaft cover for infrared

27.01 00 85

Head cover, stepped in enclosure colour

27.01 00 87

Head cover, stepped for infrared

27.01 00 89

Head cover, stepped transparent

27.01 00 91

Head cover, straight in enclosure colour

27.01 00 92

Head cover, straight transparent

27.01 00 93

Head cover, straight for infrared

Display fixing set



Order No.

27.01 04 80

Execution

Taguan 180

27.01 06 80

Taguan 230

27.01 06 88

Taguan 230

Accessories

Spare display screen

| Order No. | Execution |
|--------------------|----------------|
| 27.01 04 88 | for Taguan 180 |
| 27.01 06 88 | for Taguan 230 |

Spare screws set

| Order No. |
|--------------------|
| 27.01 00 90 |

Spring contact



Contacts for the battery pack (Company Bourns, type 70ADJ002ML1), for mounting in enclosure bottom part

| Order No. | Execution |
|--------------------|-----------|
| 27.01 00 82 | 2-pole |

Wrist strap



Protection against falling down, or as carrying aid

| Order No. |
|--------------------|
| 27.01 00 83 |

Hand strap



with Velcro fastener for adjustment, consisting of holding strap, adapter and screws

| Order No. | Execution |
|--------------------|----------------|
| 27.01 04 84 | for Taguan 180 |
| 27.01 06 84 | for Taguan 230 |

Switch mat set



consisting of keypad plate, silicone switching mat and keypad circuit board with connecting cable

| Order No. | Execution |
|--------------------|-------------------------------|
| 27.01 00 95 | 12 keys, for Taguan 180 / 230 |
| 27.01 04 81 | 24 keys for Taguan 180 |
| 27.01 06 81 | 36 keys, for Taguan 230 |

Connector charger



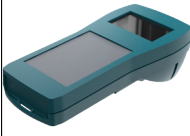
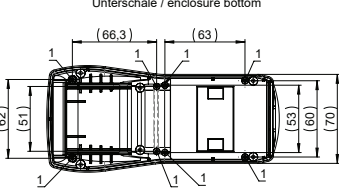
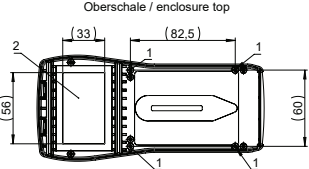
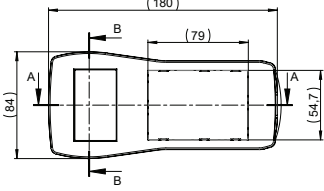
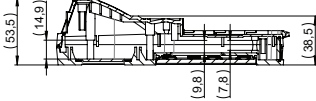
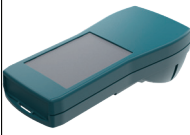
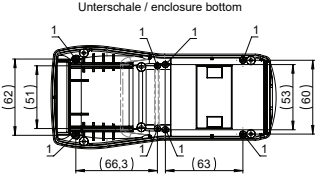
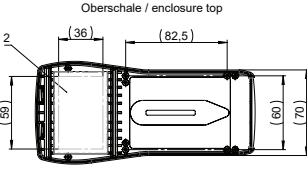
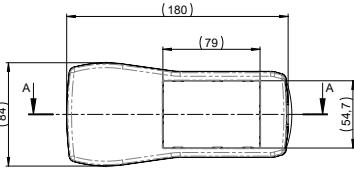
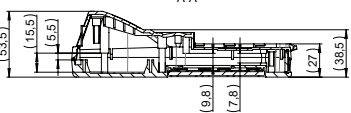
| Order No. | Execution |
|--------------------|----------------------|
| 27.20 00 02 | with primary adapter |

Further accessories see chapter „Electro-mechanical components“

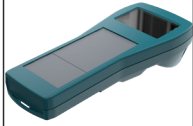


Taguan 180/230

Technical details

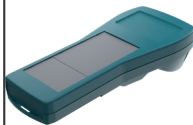
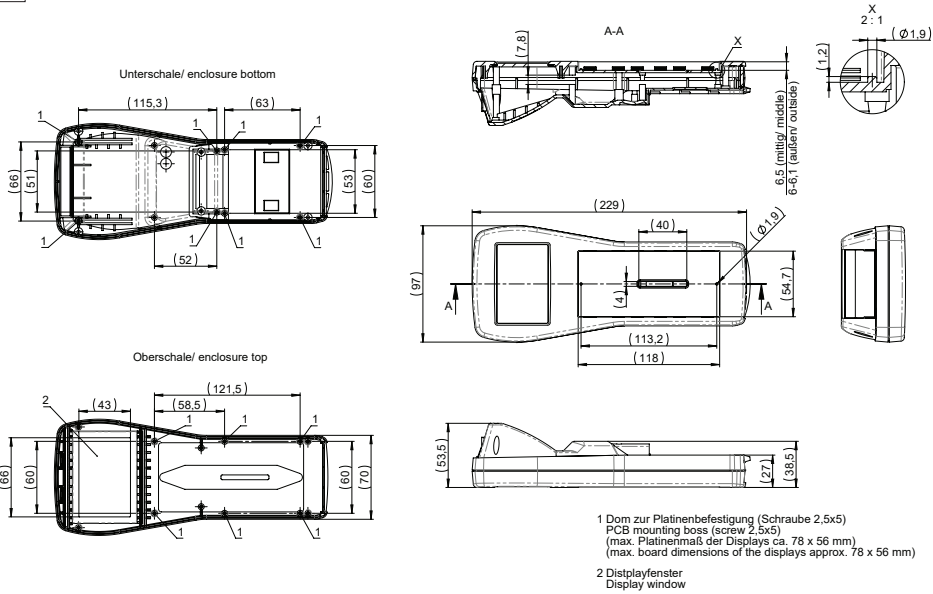
| | | |
|---|---|--|
|  | <p>Type Execution Order No.</p> <p>Taguan 180 O open 27.01 04 00</p> <p>(max. PCB size of displays ca. 66 x 46 mm)</p> | |
| | <p>Unterschale / enclosure bottom</p>  <p>Oberschale / enclosure top</p>  |   <p>A-A</p> <p>1 Dom zur Platinenbefestigung (Schraube 2,5x5) PCB mounting boss (screw 2,5x5)</p> <p>2 Displayfenster Displaywindow (max. Platinenmaß des Display ca. 66x46 mm) (max. circuit board dimensions of the display approx. 66x46 mm)</p> |
|  | <p>Type Execution Order No.</p> <p>Taguan 180 G closed 27.01 04 01</p> | |
| | <p>Unterschale / enclosure bottom</p>  <p>Oberschale / enclosure top</p>  |   <p>A-A</p> <p>1 Dom zur Platinenbefestigung (Schraube 2,5x5) PCB mounting boss (screw 2,5x5)</p> <p>2 Mögliche max. Belegungsfläche Possible maximum occupancy area</p> |

Accessories

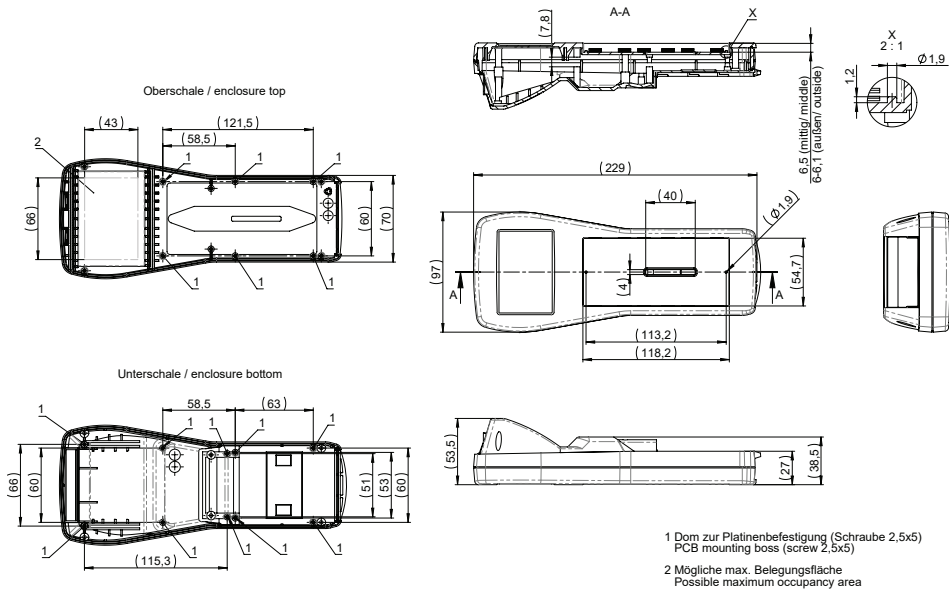


| Type | Execution | Order No. |
|--------------|-----------|--------------------|
| Taguan 230 O | open | 27.01 06 00 |

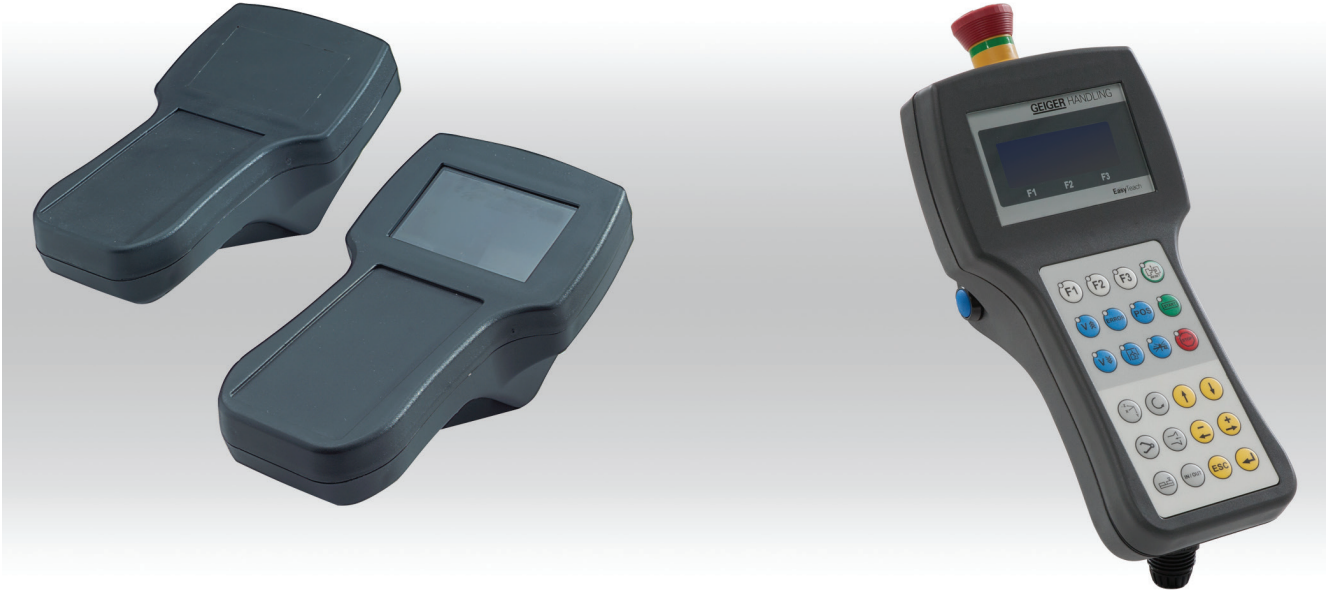
(max. PCB size of displays ca. 78 x 56 mm)



| Type | Execution | Order No. |
|--------------|-----------|--------------------|
| Taguan 230 G | closed | 27.01 06 01 |



Beluga 180/220



- + Polyamide hand held enclosure for MCR- and automation engineering
- + Execution with or without display opening
- + Prepared for acceptance of keypads/silicone switch mats
- + Optional EMC Execution with internal coating and EMC seal

Included in delivery

Double-leaf enclosure with top and base unit, each with fixing domes, fastening screws and enclosure screws.
Open Execution incl. display screen and punched seal.

Technical data

| | |
|--------------------|-----------------------------------|
| Material | Polyamide |
| Ingress protection | IP 65 to EN 60529 |
| Surface resistance | 4×10^{14} Ohm, IEC 60093 |
| Flammability | UL 94 V-2 |
| Colour | RAL 7021, black grey |
| Temperature range | -40 °C to +60 °C |

Product range

| Type | Order No. | Execution | Dimensions H x W x D (mm) | Weight (g) |
|--------------|--------------------|-----------|------------------------------|------------|
| Beluga 180 O | 27.02 02 00 | open | 106/75 x 187 x 50 | 190 |
| Beluga 180 G | 27.02 02 01 | closed | 106/75 x 187 x 50 | 228 |
| Beluga 220 O | 27.02 04 00 | open | 116/85 x 220 x 51 | 247 |
| Beluga 220 G | 27.02 04 01 | closed | 116/85 x 220 x 51 | 247 |

Components mounting options

| Component options | Type B180 O | Type B180 G | Type B220 O | Type B220 G |
|--|-------------|-------------|-------------|-------------|
| Display max. view area 42 x 65 mm max. mounting dimensions 56,4 x 74 mm or 54 x 80 mm | • | | | |
| Display max. view area 49 x 78 mm max. mounting dimensions 71,5 x 84 mm or 70,5 x 86 mm | | | • | |
| Emergency stop button | • | • | • | • |
| Push button | • | • | • | • |
| Hand wheel | | • | | • |
| Step switch | | • | | • |
| Joy stick | • | | • | |
| Cable outlet up to M 16 | • | • | • | • |
| Cable outlet up to M 20 | | | • | • |
| 1st board (main board) | • | • | • | • |
| Other boards | • | • | • | • |

Accessories

Battery compartment empty



Order No.

27.02 00 85

Battery holder

Order No. Execution

27.02 00 86 for 4 round cells for battery compartment (AA)

27.02 00 87 for 9 V monobloc for battery compartment

Display fixing set



Order No. Execution

27.01 06 80 Beluga 180

27.02 04 82 Beluga 220



Accessories

Spare display screen

| Order No. | Execution |
|--------------------|------------|
| 27.01 06 88 | Beluga 180 |
| 27.02 04 83 | Beluga 220 |

Spare screw set

| Order No. | Execution |
|--------------------|----------------|
| 27.02 00 82 | Beluga 180/220 |

Keypads



| Order No. | Execution |
|--------------------|---|
| 82.10 00 03 | Keypad FT 180b, 15 keys, printed (Matrix) |
| 82.10 00 04 | Keypad FT 180e, 15 keys, with insert (Matrix) |
| 82.10 00 05 | Keypad FT 220b, 18 keys, printed |
| 82.10 00 06 | Keypad FT 220e, 18 keys, with insert (Matrix) |

Hook set



| Order No. | Execution |
|--------------------|----------------|
| 27.02 00 80 | without magnet |
| 27.02 00 81 | with magnet |

Hand strap

| Order No. | Execution |
|--------------------|--------------------|
| 27.02 00 83 | for Beluga 180/220 |

Cable connection with bending protection




| Order No. | Execution |
|--------------------|-----------|
| 08.10 01 16 | M16x1.5 |
| 08.10 01 20 | M20x1.5 |

Wall holder set

| Order No. | Execution |
|--------------------|--------------|
| 27.02 00 84 | for hook set |

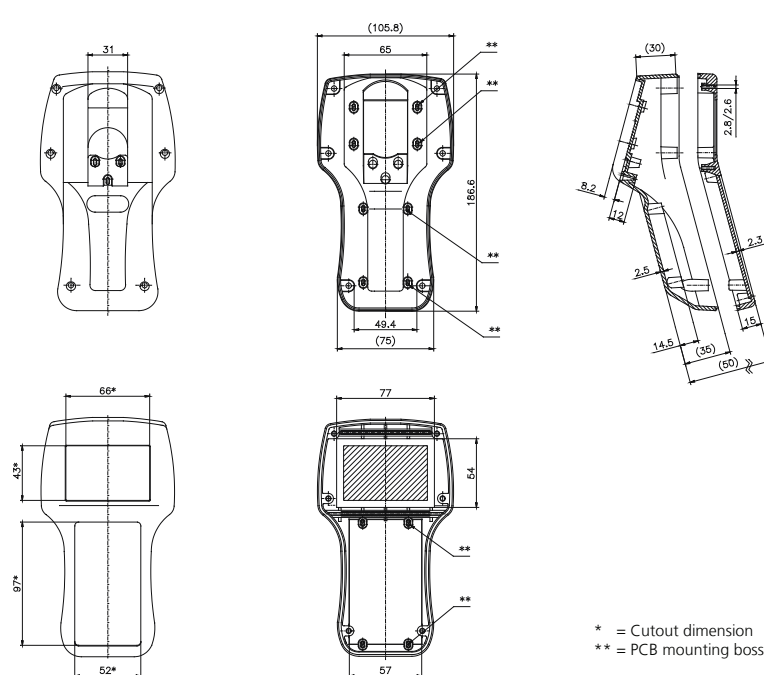
Further accessories see chapter „Electro-mechanical components“

Technical details




| Type | Execution | Order No. |
|--------------|-----------|--------------------|
| Beluga 180 O | open | 27.02 02 00 |
| Beluga 180 G | closed | 27.02 02 01 |

(max. PCB size of displays ca. 74 x 56,4 mm or 80 x 54 mm)

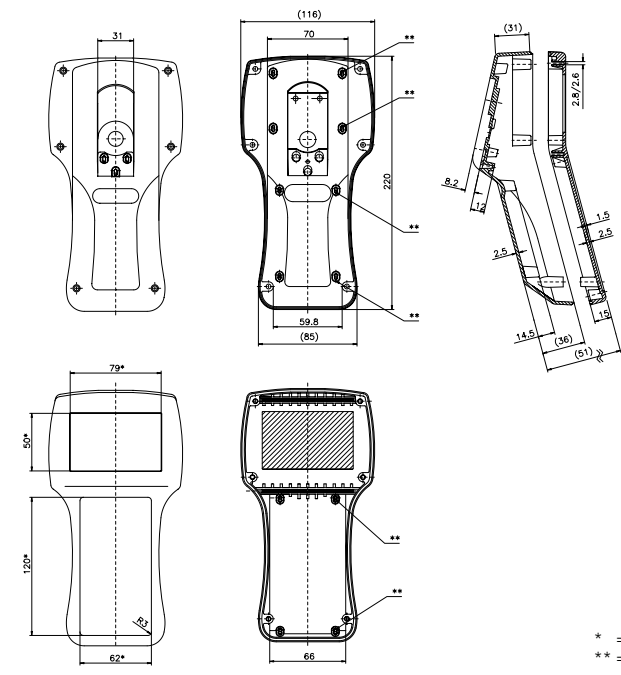


* = Cutout dimension
** = PCB mounting boss (screw 3 x 8)



| Type | Execution | Order No. |
|--------------|-----------|--------------------|
| Beluga 220 O | open | 27.02 04 00 |
| Beluga 220 G | closed | 27.02 04 01 |

(max. PCB size of displays ca. 84 x 71,5 mm or 86 x 70,5 mm)



* = Cutout dimension
** = PCB mounting boss (screw 3 x 8)



Beluga 380



- + Polyamide hand held enclosure for MCR- and automation engineering
- + Execution with or without display opening
- + Prepared for keypads/silicone switch mats
- + Optional EMC Execution with internal coating and EMC seal

Included in delivery

Double-leaf enclosure with top and base unit, each with fixing domes, mounting / hook set, fastening and enclosure screws.

Technical data

| | |
|--------------------|--------------------------|
| Material | Polyamide |
| Ingress protection | IP 65 to EN 60529 |
| Surface resistance | 10^{12} Ohm, IEC 60093 |
| Flammability | UL 94 V-2 |
| Colour | RAL 7021, black grey |
| Temperature range | -40 °C to +60 °C |

Product range

| Type | Order No. | Execution | Dimensions H x W x D (mm) | Weight (g) |
|------------|--------------------|-----------|------------------------------|---------------|
| Beluga 380 | 27.02 05 01 | closed | 380 x 117 x 68 | 670 |

Components mounting options

| Component options | Type B380 |
|---|-----------|
| Display (max. view area / max. mounting dimensions see drawing on page 53 - 58) | • |
| Emergency stop button | • |
| Push button | • |
| Enabling switch | • |
| Hand wheel | • |
| Step switch | • |
| Joy stick | • |
| Cable outlet up to M 20 | • |
| 1st board (main board) | • |
| Other boards | • |



Fitting possibility of large displays
(1/4 VGA)



Integrated hook set



Large installation space for
electronic devices



Hook set, can be used as release
lever

Accessories

Spare screws set

| Order No. | Execution |
|--------------------|------------|
| 27.02 05 83 | Beluga 380 |

Hand strap

| Order No. | Execution |
|--------------------|----------------|
| 27.02 05 81 | for Beluga 380 |

Cable gland with bending protection



| Order No. | Execution |
|--------------------|-----------|
| 08.10 01 16 | M16x1.5 |
| 08.10 01 20 | M20x1.5 |



Beluga 380

Accessories

Carrying strap

| Order No. | Execution |
|--------------------|----------------|
| 27.02 05 80 | for Beluga 380 |

Wall holder set


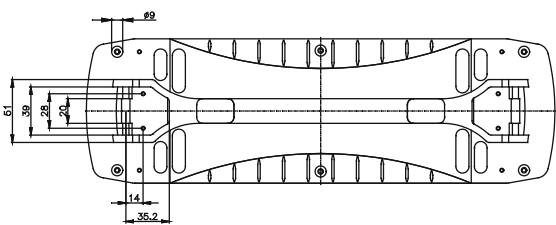
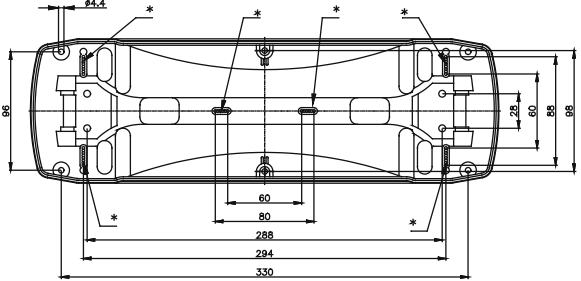
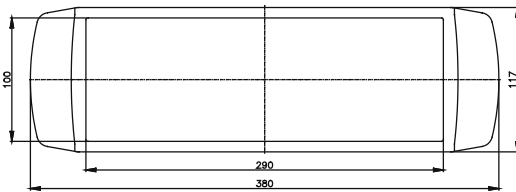
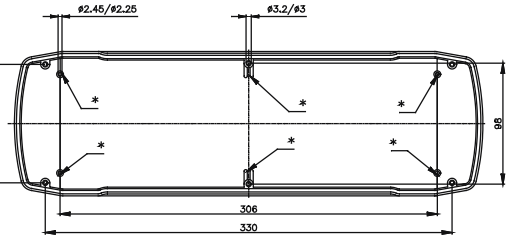
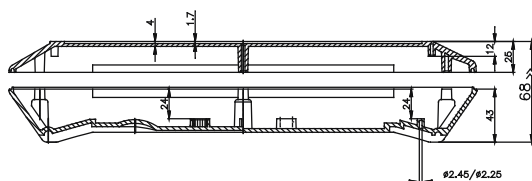


| Order No. |
|--------------------|
| 27.02 05 82 |

Further accessories see chapter „Electro-mechanical components“

Technical details

| Type | Execution | Order No. |
|------------|-----------|--------------------|
| Beluga 380 | closed | 27.02 05 01 |

* = PCB mounting boss (screw 3 x 8)



- + Polyamide hand held enclosure for MCR- and automation engineering
- + Large installation space
- + Execution with closed lid or front frame lid
- + Rear battery compartment
- + Optional EMC Execution with internal coating and EMC seal

Included in delivery

Double-leaf enclosure with top and base unit, each with fixing domes, battery compartment lid, fastening and enclosure screws

Technical data

| | |
|---------------------------|---|
| Material | Polyamide |
| Ingress protection | IP 65 to EN 60529 |
| Impact resistance | 7 Joule to EN 60529 |
| Flammability | UL 94 HB |
| Colour | Base and lid: RAL 7021, black grey Rear cover: RAL 5003, sapphire blue |
| Temperature range | -40 °C to +60 °C |



Pilot 250

Product range

| Type | Order No. | Execution upper shell | Dimensions H x W x D (mm) | Weight (g) |
|-------------|--------------------|-----------------------|---------------------------|------------|
| Pilot 250/1 | 29.25 00 01 | closed | 140/120 x 280 x 86 | 850 |
| Pilot 250/2 | 29.25 00 02 | lid frame | 140/120 x 280 x 86 | 880 |

Accessories

Battery holder



| Order No. | Execution |
|--------------------|-------------------|
| 29.25 01 03 | for 4 micro-cells |
| 29.25 01 04 | for 9V monobloc |

Front plate

| Order No. | Execution |
|--------------------|-----------------|
| 29.25 01 01 | for Pilot 250/2 |

Cable gland with bending protection



| Order No. | Execution |
|--------------------|-----------|
| 08.10 01 16 | M16x1.5 |
| 08.10 01 20 | M20x1.5 |

Magnet holder



| Order No. |
|--------------------|
| 29.25 01 02 |

Wall holder



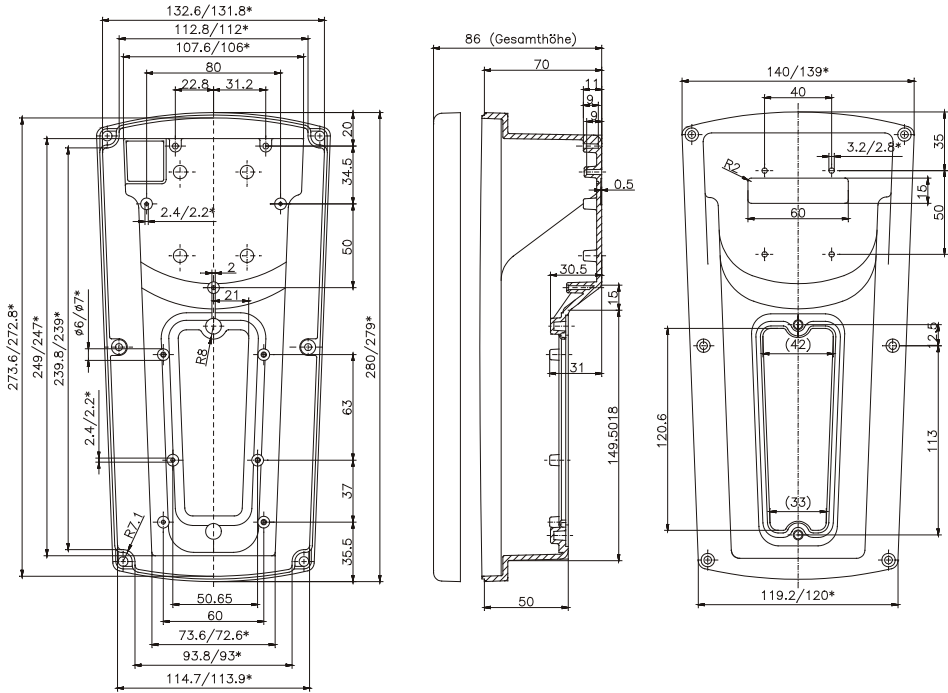
| Order No. |
|--------------------|
| 29.25 01 05 |

Further accessories see chapter „Electro-mechanical components“

Technical details



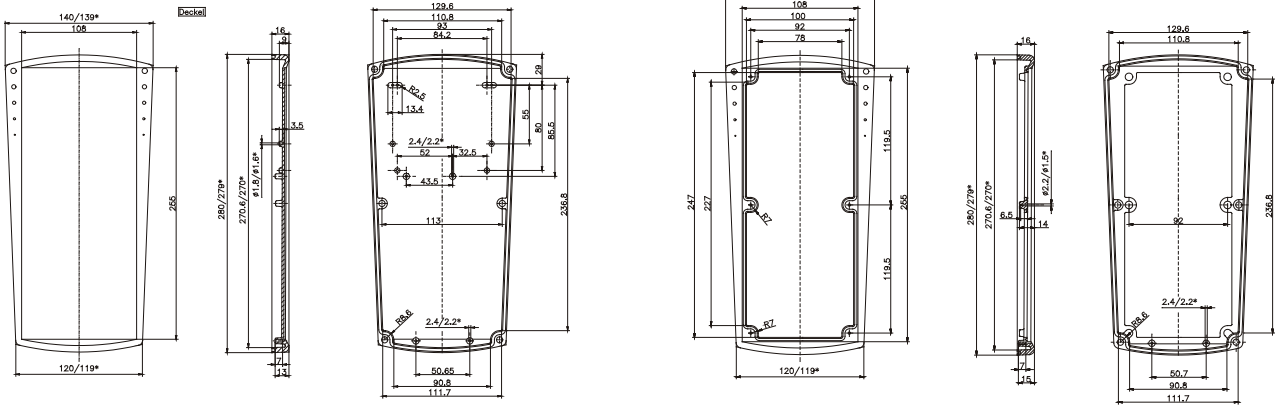
| Type | Execution | Order No. |
|-------------|-----------|-------------|
| Pilot 250/1 | closed | 29.25 00 01 |
| Pilot 250/2 | lid frame | 29.25 00 02 |



* = Conical form tapering downwards

Closed lid

Lid frame



Pilot 50



+ Polyamide / PVC hand held enclosure for MCR and automation engineering

+ Large installation space

+ Variable length by using profile technology

+ Robust construction

Included in delivery

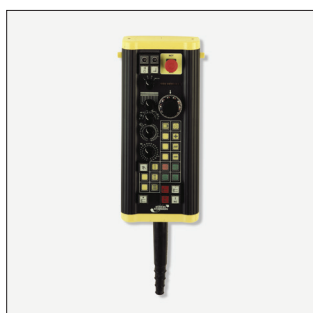
Enclosure system consisting of internal polyamide enclosure with end covers, two lateral PVC cover profiles, Alucobond composite front plate, rear wall, 2 external end covers, with M 25 x 1.5 threaded hole for cable gland

Technical data

| | |
|---------------------------|---|
| Material | Polyamide 6 PVC |
| Ingress protection | IP 65 to EN 60529 |
| Impact resistance | 5 Joule, EN 60079-0 |
| Flammability | End covers: UL 94 HB |
| Colour | End covers: RAL 1003, rape yellow PVC-profile: RAL 9005, jet black |

Product range

| External enclosure dimensions H x W x D (mm) | Order No. Standard complete | Weight (g) | Standard rear wall separate | Standard front plate separate |
|---|--------------------------------|-------------|--------------------------------|----------------------------------|
| 280 x 191 x 76 | 29.11 10 00 | 1340 | 29.11 00 01 | 29.11 00 02 |
| 330 x 191 x 76 | 29.12 10 00 | 1520 | 29.12 00 01 | 29.12 00 02 |
| 440 x 191 x 76 | 29.13 10 00 | 1940 | 29.13 00 01 | 29.13 00 02 |
| Special length | 29.19 10 00 | | 29.19 00 01 | 29.19 00 02 |



Pilot with small control device



Inner T-slots offer mounting facilities on all sides



Variable fittings

Accessories

Mounting set



| Order No. | Execution |
|--------------------|-----------------|
| 29.00 00 50 | M4, set = 4 pcs |

Front plate

| Order No. | Execution |
|--------------------|----------------|
| 29.11 00 02 | for 29.11 |
| 29.12 00 02 | for 29.12 |
| 29.13 00 02 | for 29.13 |
| 29.19 00 02 | Special length |

Cable gland with bending protection



| Order No. | Execution |
|--------------------|-----------|
| 08.10 01 25 | M25x1.5 |

PCB fixing set



| Order No. | Execution |
|--------------------|--------------------------------|
| 29.00 00 60 | Set of 4 pcs incl. spring nuts |

Rear wall

| Order No. | Execution |
|--------------------|----------------|
| 29.11 00 01 | for 29.11 |
| 29.12 00 01 | for 29.12 |
| 29.13 00 01 | for 29.13 |
| 29.19 00 01 | Special length |

Cable gland reduction

| Order No. | Execution |
|--------------------|-----------|
| 08.01 25 12 | M25 / M12 |
| 08.01 25 16 | M25 / M16 |
| 08.01 25 20 | M25 / M20 |

Wall holder



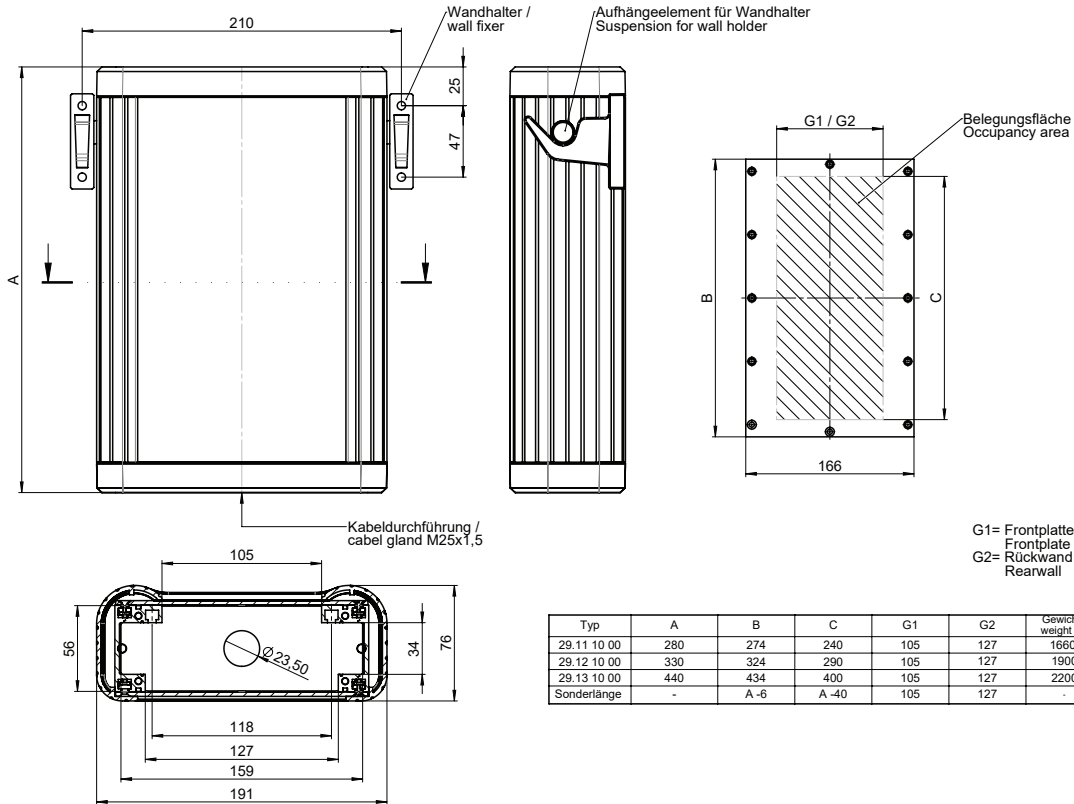
| Order No. | Execution |
|--------------------|---------------------------|
| 29.00 00 70 | for Pilot 50 (single) |
| 29.00 00 80 | Magnetic wall holder |
| 29.00 10 00 | incl. enclosure machining |

Further accessories see chapter „Electro-mechanical components“

Technical details

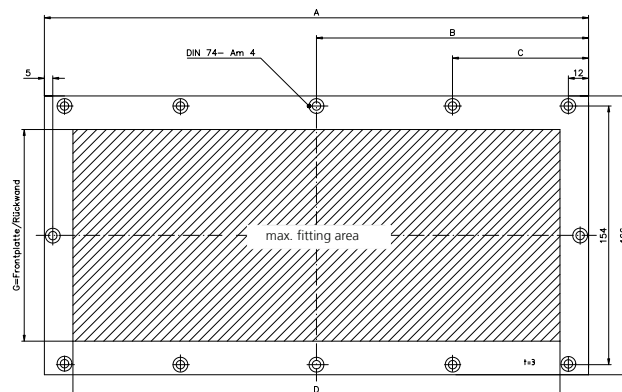


| Standard | Dimensions | Weight (g) |
|--------------------|----------------|------------|
| 29.11 10 00 | 280 x 191 x 76 | 1660 |
| 29.12 10 00 | 330 x 191 x 76 | 1900 |
| 29.13 10 00 | 440 x 191 x 76 | 2200 |
| 29.19 10 00 | Special length | |



| Typ | A | B | C | G1 | G2 | Gewicht / weight (g) |
|-------------|-----|-----|------|-----|-----|----------------------|
| 29.11 10 00 | 280 | 274 | 240 | 105 | 127 | 1660 |
| 29.12 10 00 | 330 | 324 | 290 | 105 | 127 | 1900 |
| 29.13 10 00 | 440 | 434 | 400 | 105 | 127 | 2200 |
| Sonderlänge | - | A-6 | A-40 | 105 | 127 | - |

| Type | A | B | C | D | G |
|--------------------------|----------------------|-----|-----|--------|---------|
| 29.11 10 00 | 274 | - | 92 | 240 | 105/127 |
| 29.12 10 00 | 324 | 162 | 81 | 290 | 105/127 |
| 29.13 10 00 | 434 | 217 | 109 | 400 | 105/127 |
| Special size, A ≤ 300 mm | enclosure length - 6 | - | A/3 | A - 34 | 105/127 |
| Special size, A ≥ 300 mm | enclosure length - 6 | A/2 | A/4 | A - 34 | 105/127 |





- + Hand held enclosure for MCR and automation engineering
- + Robust design (Polyamide or Polyester)
- + Execution with handle and integrating cable outlet
(Pilot 10, 20 standard)

Included in delivery

Pilot 10/20: enclosure with handle, including cable gland M 20 x 1,5, front plate with fastening screw and wall holder

Pilot 30: two-part Polyester enclosure with self-adhesive aluminium front plate, enclosure screws and wall holder

Technical data

| | |
|---------------------------|---|
| Material | Pilot 10 and Pilot 20: Polyamide; Pilot 30: Polyester |
| Ingress protection | IP 65 to EN 60529 |
| Impact resistance | 7 Joule, EN 60079-0 |
| Flammability | Pilot 10 and Pilot 20: UL 94 HB Pilot 30: self-extinguishing UL 94 V-0 |
| Colour | RAL 1003, signal yellow Pilot 30: RAL 1021, rape yellow |
| Temperature range | -40 °C to +60 °C |

Product range

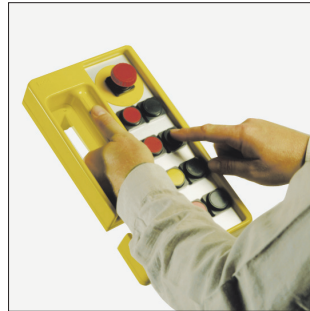
| Type | Order No. | Enclosure dimensions incl. handle H x W x D (mm) | Front plate dimensions W x H (mm) | Mounting depth (mm) |
|----------|--------------------|---|--------------------------------------|------------------------|
| Pilot 10 | 29.40 02 00 | 70 x 93 x 190 | 61 x 59 | 67 |
| Pilot 20 | 29.30 01 00 | 115 x 93 x 200 | 106 x 69 | 67 |
| Pilot 30 | 29.50 01 00 | 164 x 116 x 295 | 70 x 280 | 71 |



One button and two button enclosure Pilot 10 / Pilot 20



Integrated handles on Pilot 10 and Pilot 20



Switch enclosure Pilot 30

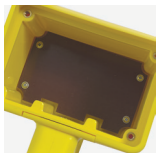
Accessories

Cable gland with bending protection



| Order No. | Execution |
|--------------------|--------------|
| 08.10 01 20 | for Pilot 30 |

Mounting plate



| Order No. | Execution |
|--------------------|--------------|
| 29.31 00 00 | for Pilot 20 |

Wall holder



| Order No. | Execution |
|--------------------|--------------------|
| 29.60 01 00 | for Pilot 10/20/30 |

Further accessories see chapter „Electro-mechanical components“



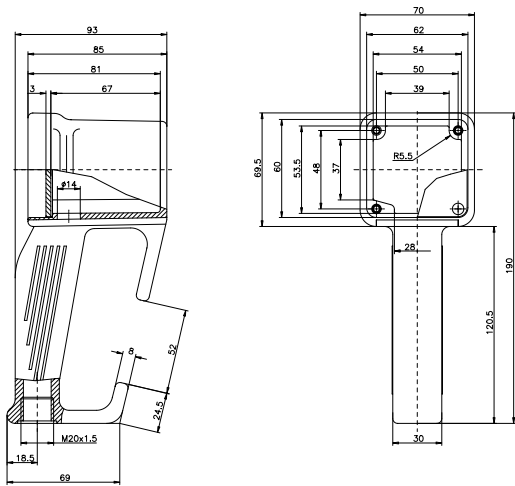
Pilot 10/20/30

Technical details

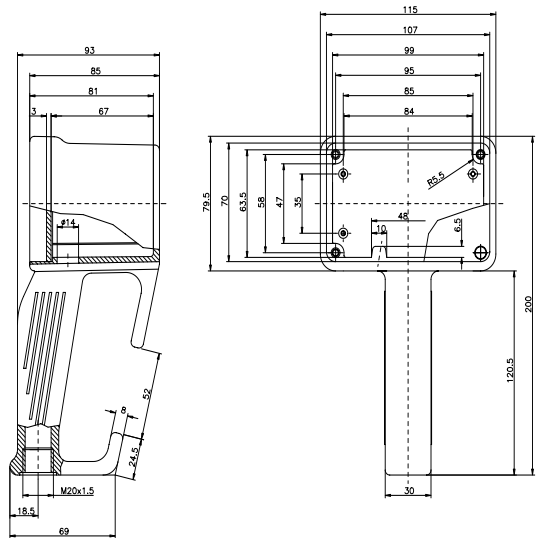


| Type | Order No. | Weight (g) |
|----------|--------------------|------------|
| Pilot 10 | 29.40 02 00 | 300 |
| Pilot 20 | 29.30 01 00 | 550 |

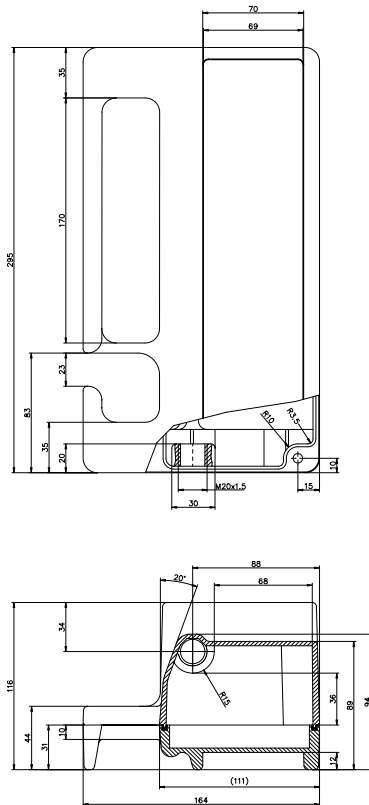
Pilot 10



Pilot 20



| Type | Order No. | Weight (g) |
|----------|--------------------|------------|
| Pilot 30 | 29.50 01 00 | 1700 |





- + Polyamide hand enclosure for automation and control engineering
- + Execution with handle and integrated cable entry
- + Large installation space

Included in delivery

Enclosure with handle, including cable gland M 20 x 1.5, front plate, enclosure and front panel screws, and wall holder

Technical data

| | |
|---------------------------|--|
| Material | Polyamide; front plate: Polystyrene |
| Ingress protection | IP 65 to EN 60529 |
| Impact resistance | 7 Joule, EN 60079-0 |
| Flammability | UL 94 HB |
| Colour | RAL 1003, signal yellow Pilot 30: RAL 1021, rape yellow |
| Temperature range | -40 °C to +60 °C |



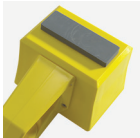
Pilot 110 - 150

Product range

| Type | Order No. | Enclosure dimensions incl. handle H x W x D (mm) | Front plate dimensions H x W (mm) | Mounting depth (mm) |
|-----------|--------------------|---|--------------------------------------|------------------------|
| Pilot 110 | 29.21 10 00 | 85 x 85 x 191 | 77 x 77 | 63,5 |
| Pilot 120 | 29.21 20 00 | 115 x 85 x 191 | 107 x 77 | 63,5 |
| Pilot 130 | 29.21 30 00 | 85 x 85 x 221 | 77 x 107 | 63,5 |
| Pilot 140 | 29.21 40 00 | 160 x 85 x 211 | 152 x 97 | 63,5 |
| Pilot 150 | 29.21 50 00 | 105 x 85 x 266 | 97 x 152 | 63,5 |

Accessories

Wall holder



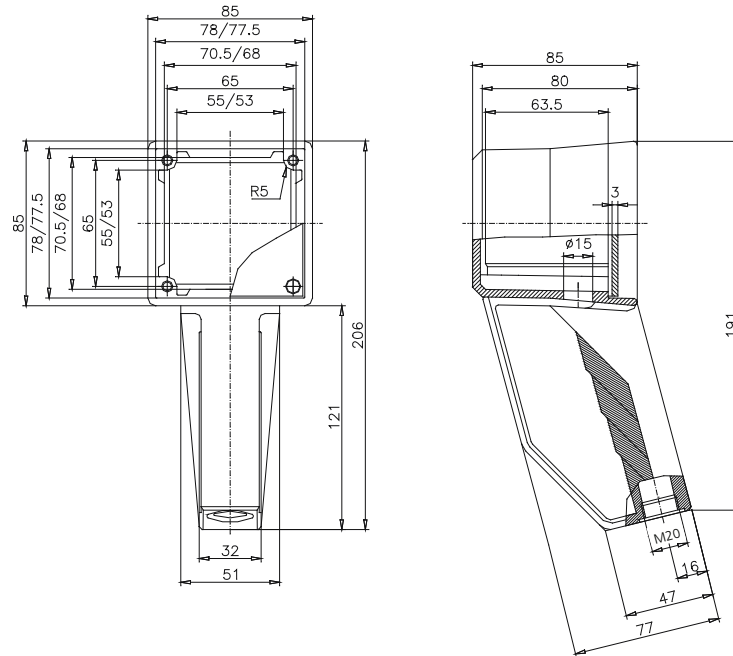
| Order No. | Execution |
|--------------------|--|
| 29.00 00 80 | Magnetic wall holder for Pilot 120 - 150 |

Further accessories see chapter „Electro-mechanical components“

Technical details

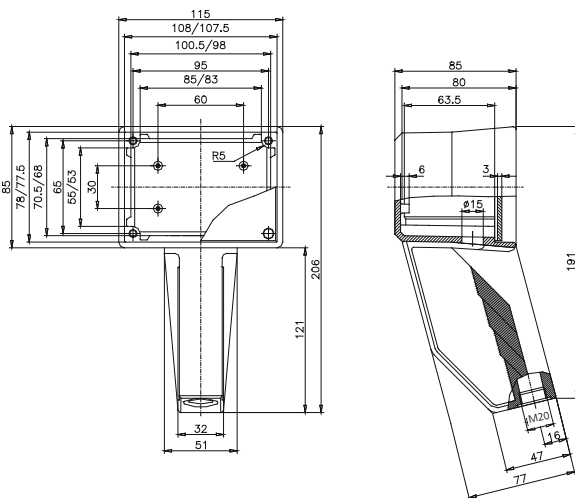


| Type | Order No. | Weight (g) |
|-----------|--------------------|------------|
| Pilot 110 | 29.21 10 00 | 390 |

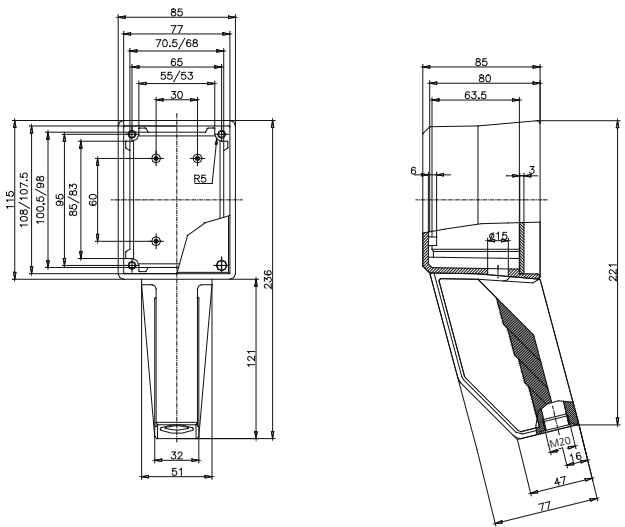


| Type | Order No. | Weight (g) |
|-----------|--------------------|------------|
| Pilot 120 | 29.21 20 00 | 550 |
| Pilot 130 | 29.21 30 00 | 430 |

Pilot 120



Pilot 130



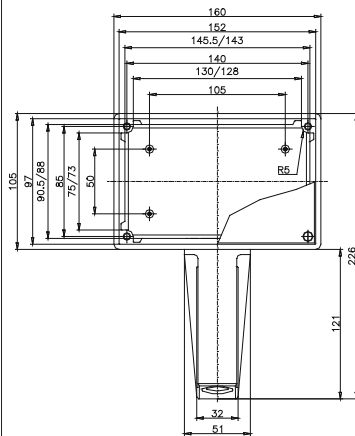
Pilot 110 - 150

Technical details

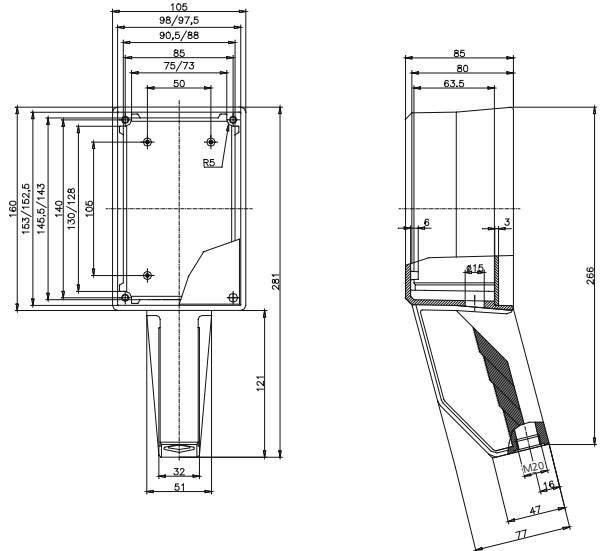


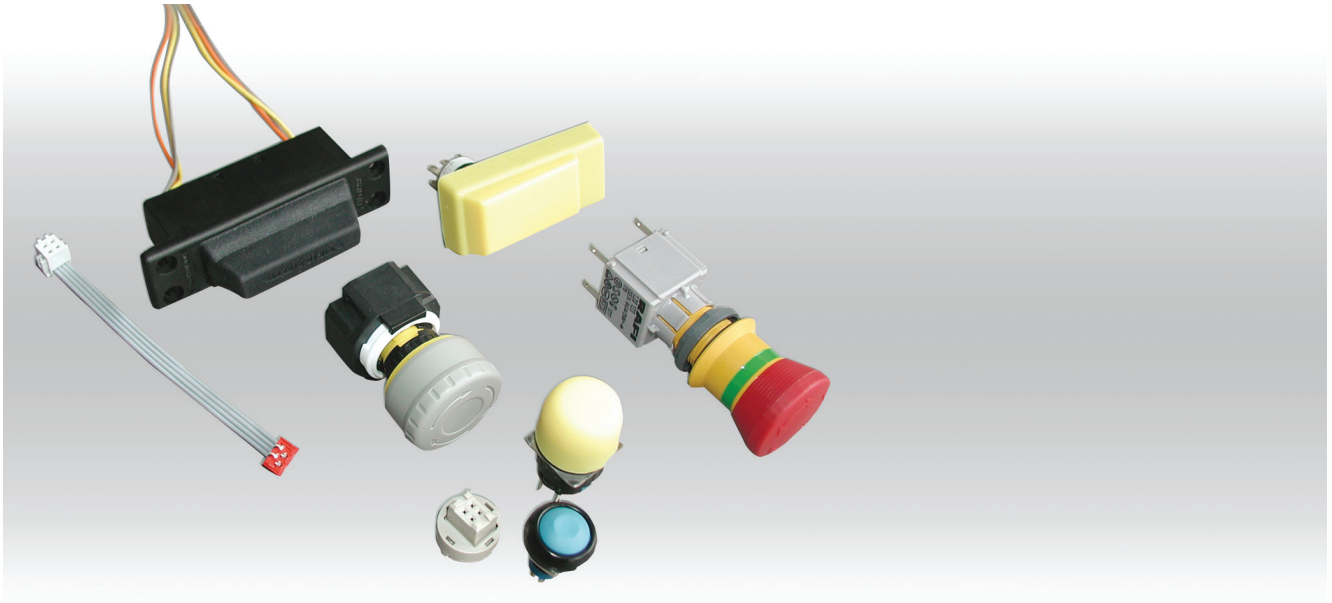
| Type | Order No. | Weight (g) |
|-----------|--------------------|------------|
| Pilot 140 | 29.21 40 00 | 550 |
| Pilot 150 | 29.21 50 00 | 780 |

Pilot 140



Pilot 150





For assembling of enclosures there is available a huge range of switches / push buttons:

- enabling switches
- emergency stop button
- accessories

Electro-mechanical components

Components

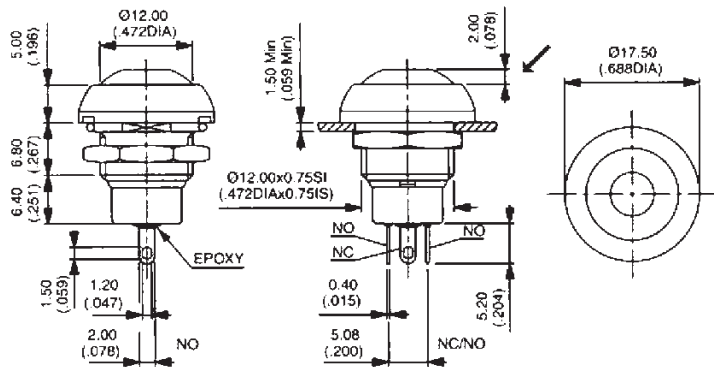
Enabling switch



| Order No. | Execution |
|--------------------|---|
| 83.50 00 10 | 2-step enabling switch (1 NO), blue |
| 83.50 00 09 | 2-step enabling switch (1 NC/ 1 NO), blue |

Technical data

| | |
|--------------------|--|
| Contact loading | 48 V (AC), 500 mA 250 V (AC), 200 mA 50 V (DC), 200 mA |
| Ingress protection | IP 67 front side |
| Temperature range | -40°C to +125°C (no condensation) |
| Volume resistance | max. 50 mW (initial value) |
| Service life | ≥ 5 x 10 ⁵ switchings |



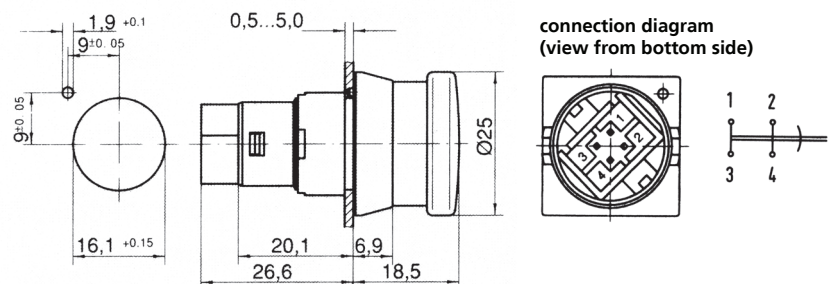
Emergency stop button



| Order No. | Execution |
|--------------------|---|
| 83.50 00 02 | Emergency stop button (2NC), Ø 25 mm, red |

Technical data

| | |
|----------------------------|--|
| Contact system and fitting | 2 NC |
| Ingress protection | IP 65 front side |
| Temperature range | -25 °C to +70 °C (no condensation) |
| Connections | galvanized, suitable to 4-pole multipoint socket connector |
| Switching voltage | 0,02 to 25 V AC/DC |
| Switching current | 0,1 to 1 A |
| Volume resistance | < 100 mW |
| Duration of bounce | < 10 ms |
| Service life | > 1,5 x 10 ⁴ switchings |

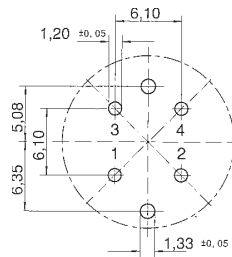


Components

PCB plug-socket



| Order No. | Execution |
|--------------------|--|
| 83.90 00 01 | PCB plug-socket for emergency stop button, Ø 25 mm |



Contact fitting area

| | |
|-------|---------------|
| NC 1: | Pin 1 - blue |
| | Pin 2 - black |
| NC 2: | Pin 3 - blue |
| | Pin 4 - black |

Ribbon cable



| Order No. | Execution |
|--------------------|--|
| 83.90 00 02 | 10 cm with multipoint socket connector and strip, AMP 4-pole for emergency stop button Ø 25 mm |

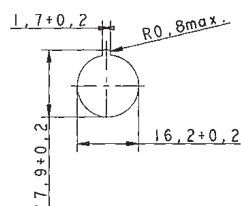
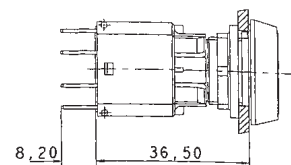
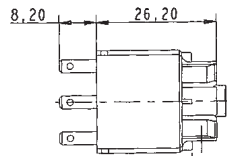
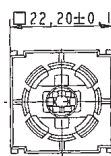
Emergency stop button



| Order No. | Execution |
|--------------------|--|
| 83.50 00 03 | Emergency stop button with switch unit (2NC), Ø 28 mm, red |

Technical data

| | |
|----------------------------|---|
| Contact system and fitting | self cleaning bridge forming contact (Ag), 2 NC |
| Ingress protection | IP 65 front side |
| Temperature range | -25°C to +70°C (no condensation) |
| Connections | Flachstecker 2.8 x 0.8 |
| Switching voltage | AC: 250 V / DC: 24 V (further voltage on request) |
| Switching current | AC: 1,5 A / DC: 2,0 A |
| Volumne resistance | max. 20 mW (initial value) |
| Service life | ≥ 3 x 10 ⁴ switchings |



Electro-mechanical components

Components

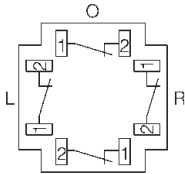
Button



| Order No. | Execution |
|--------------------|---|
| 83.50 00 04 | Emergency stop button (3NC/1NO), Ø 29 mm, red |
| 83.50 00 05 | Stop push button (3NC/1NO), Ø 29 mm, grey |
| 83.90 00 07 | Emergency stop label for command element, 16 mm, yellow, 4 speeches, 40 x 40 mm |

Technical data

| | |
|--------------------------------------|---------------------------------------|
| Contact system and fitting | obligation-led contacts (3 NC / 1 NO) |
| Ingress protection | IP 65 front side |
| Temperature range | -25°C to +60°C (no condensation) |
| Connections | soldered connection |
| Switching voltage (direct contact) | AC(12): 250 V / DC(12): 30 V |
| Switching current (direct contact) | AC(12): 3,0 A / DC(12): 2,0 A |
| Switching voltage (indirect contact) | AC(12): 250 V / DC(12): 30 V |
| Switching current (indirect contact) | AC(12): 0,6 A / DC(12): 2,0 A |
| Volume resistance | max. 50 mW (initial value) |
| Service life | ≥ 1 x 10 ⁵ switchings |

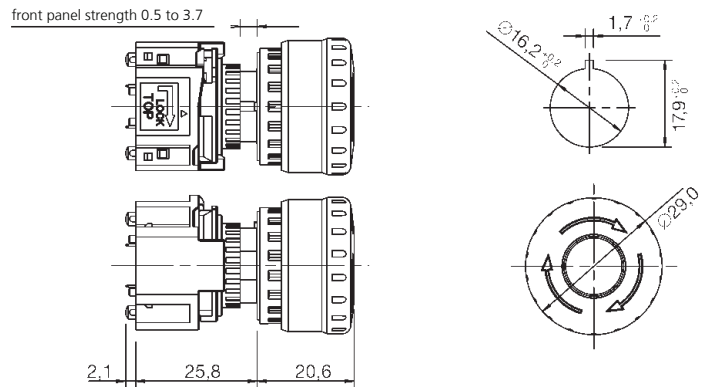


Direct contact

1 NC: connections right

2 NC: connections right and left

3 NC: connections right, left and above



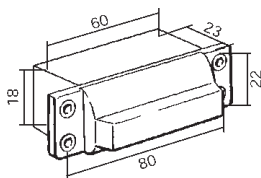
Enabling switches



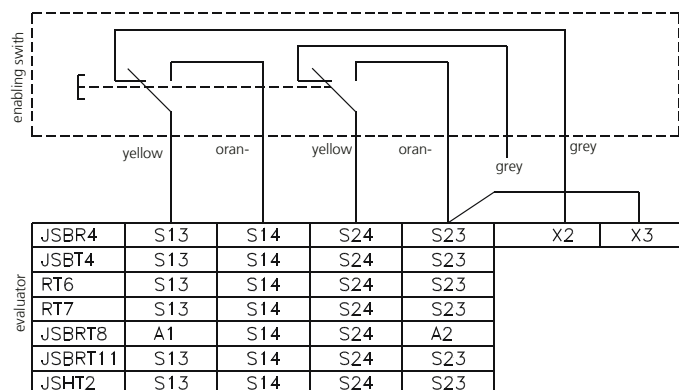
| Order No. | Execution |
|--------------------|---|
| 83.50 00 06 | 3-steps enabling switches (2 changer), 80 x 22, black |

Technical data

| | |
|----------------------------|---|
| Contact system and fitting | 2 main switches (changer) |
| Contact rating | 30 V DC, max. 0,5 A |
| Ingress protection | IP 65 |
| Temperature range | 0°C to +50°C |
| Fullfilled standards | 89/392/EWG; IEC 204-1: EN 60204/DIN VDE 0113; DIN VDE 0110: EN292 |

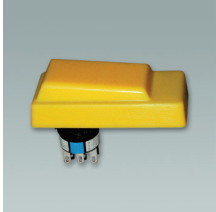


Connection diagram



Components

Enabling switches

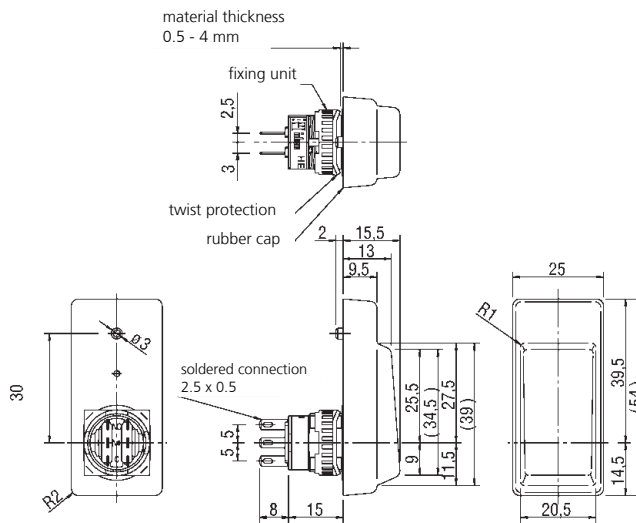
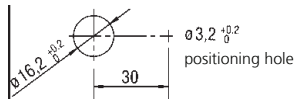


Order No. Execution

83.50 00 07 3-step enabling switches (2 changers), 55 x 25, yellow

Technical data

| | |
|----------------------------|----------------------------------|
| Contact system and fitting | 2 main switches (changer) |
| Ingress protection | IP 65 (with rubber cap) |
| Temperature range | -25°C to +60°C (no condensation) |
| Connections | soldered condensation |
| Switching voltage | AC(12): 125 V / DC(12): 30 V |
| Switching current | AC(12): 1,0 A / DC(12): 1,0 A |
| Volume resistance | max. 50 mW (initial value) |
| Service life | ≥ 1 x 10 ⁵ switchings |



Enabling switches

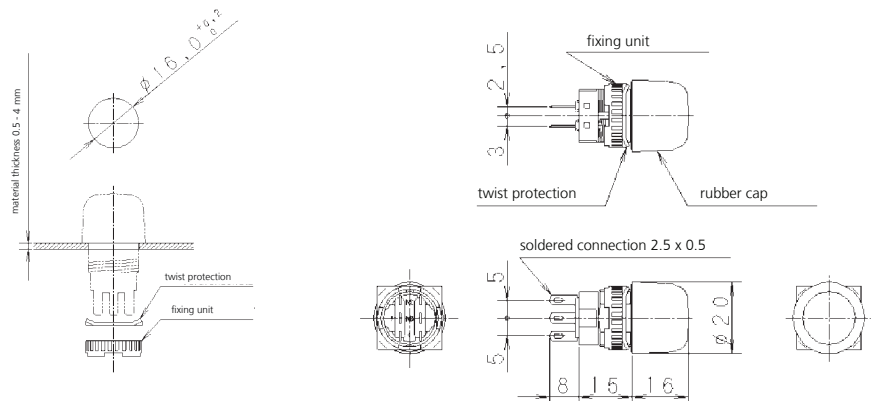


Order No. Execution

83.50 00 08 3-steps enabling switches (2 changer), \varnothing 20 mm, yellow

Technical data

| | |
|----------------------------|----------------------------------|
| Contact system and fitting | 2 main switches (changer) |
| Ingress protection | IP 65 (with rubber cap) |
| Temperature range | -10°C to +60°C (no condensation) |
| Connections | soldered connection |
| Switch voltage | AC(12): 125 V / DC(12): 30 V |
| Switch current | AC(12): 0,5 A / DC(12): 1,0 A |
| Volume resistance | max. 50 mW (initial value) |
| Service life | ≥ 1 x 10 ⁵ switchings |



Electro-mechanical components

Product allocation

| Products | 2-step enabling switches (1NO), blue | 2-step enabling switches (1NC/1NO), blue | Emergency stop button (2NC), Ø 25 mm, red | PCB-plug-socket for emergency stop button Ø 25 mm | Ribbon cable 10 cm with multipoint socket connector and strip, AMP 4-pole for emergency stop button Ø 25 mm | Emergency stop button with contact block (2NC), Ø 28 mm, red |
|----------------------|--------------------------------------|--|---|---|---|--|
| Order No. | 83.50 00 10 | 83.50 00 09 | 83.50 00 02 | 83.90 00 01 | 83.90 00 02 | 83.50 00 03 |
| Taguan 130 | | | • | • | • | |
| Taguan 180 | | | • | • | • | |
| Taguan 230 | | | • | • | • | |
| Beluga 180 | • | • | • | • | • | • |
| Beluga 220 | • | • | • | • | • | • |
| Beluga 380 | • | • | • | • | • | • |
| Pilot 250 | • | • | • | • | • | • |
| Pilot 50 | | | • | • | • | • |
| Pilot 10 | | | • | • | • | • |
| Pilot 20 | | | • | • | • | • |
| Pilot 30 | | | • | • | • | • |
| Pilot 110 | | | • | • | • | • |
| Pilot 120 | | | • | • | • | • |
| Pilot 130 | | | • | • | • | • |
| Pilot 140 | | | • | • | • | • |
| Limanda I Handle set | • | • | | | | |
| Limanda I | • | • | • | • | • | • |
| Limanda II | • | • | • | • | • | • |
| Norvent | • | • | • | • | • | • |

| Products | Emergency stop button (3NC/1NO), Ø 29 mm, red | Stop button (3NC/1NO), Ø 29 mm, grey | 3-steps enabling switches (2 changer), 80 x 22, black | 3-steps enabling switches (2 changer), 55 x 25, yellow | 3-steps enabling switches (2 changer), Ø 20 mm, yellow |
|----------------------|---|--------------------------------------|---|--|--|
| Order No. | 83.50 00 04 | 83.50 00 05 | 83.50 00 06 | 83.50 00 07 | 83.50 00 08 |
| Taguan 130 | | | | | |
| Taguan 180 | | | | | |
| Taguan 230 | | | | | |
| Beluga 180 | • | • | | | |
| Beluga 220 | • | • | | | • |
| Beluga 380 | • | • | | | |
| Pilot 250 | • | • | • | • | • |
| Pilot 50 | • | • | | | |
| Pilot 10 | • | • | | | • |
| Pilot 20 | • | • | | | |
| Pilot 30 | • | • | | | |
| Pilot 110 | • | • | | | • |
| Pilot 120 | • | • | | | |
| Pilot 130 | • | • | | | |
| Pilot 140 | • | • | | | |
| Limanda I Handle set | | | • | | • |
| Limanda I | • | • | • | | • |
| Limanda II | • | • | • | • | • |
| Norvent | • | • | • | • | • |

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