

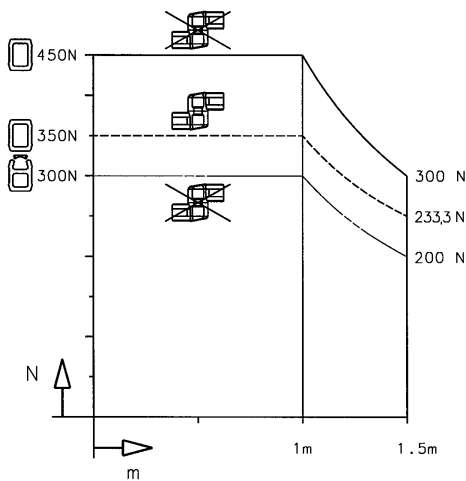
Light weight system

CS-2000 SL 45/60

The light weight system CS-2000 SL has been specially designed to support compact, light weight control housings over a short distance. Unlike other suspension systems currently on the market for similar purposes, it has a number of clear technical and economic benefits.

System structure

To obtain the desired system configuration, components can be combined either with a closed or open top, aluminium link section. The large number of different components



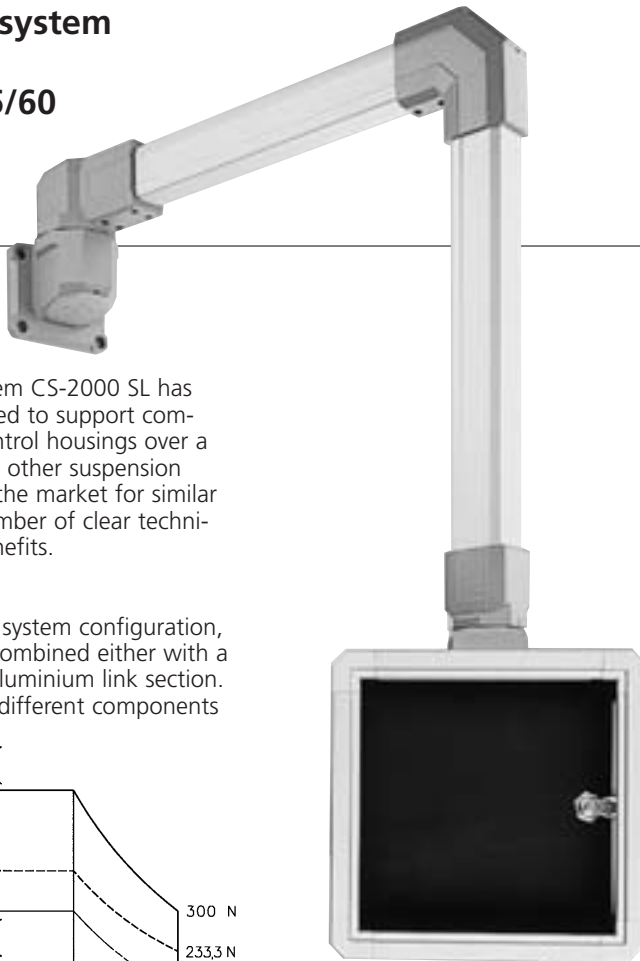
available, allows a great variety of system configurations. Construction should follow the specifications in the load diagram.

Materials

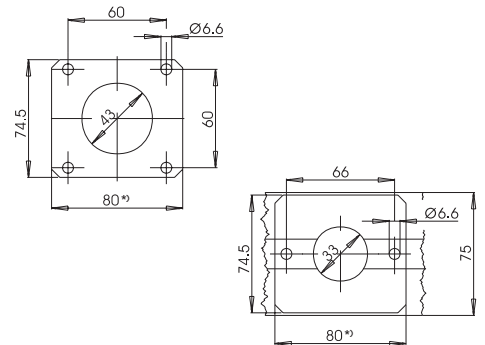
- Gravity-die-cast aluminium components: AlSi12 (Cu)
- Installation opening: POM
- Bearing: PA
- Seals: CR
- Aluminium link section: Al Mg Si 0.5
- Link section cover with open profile: EPDM

Colours

- Suspension system components: light grey, RAL 7035
- Link section: silver, clear anodised



Components for mounting housings



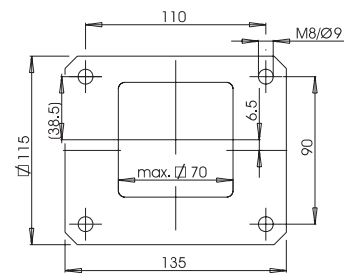
For	Part number
Coupling	101.5.1630.00
Elbow coupling	101.5.1650.00
Base bracket coupling	101.5.1670.00
Angled coupling	101.5.1640.00
Angled elbow coupling	101.5.1660.00
Angled base bracket coupling	101.5.1680.00
Adjustable angle coupling	101.5.1690.00
Adjustable angle elbow coupling	101.5.1700.00

*) The CC-2000 section 75 has a bore diameter of 33 mm

System benefits

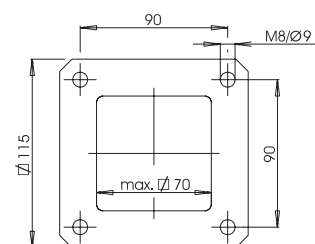
- Installation openings at elbow points
- Choice between the use of open and closed link sections
- Free cable passage area with closed system:
dia. 40 mm = 12.5 cm² at the narrowest point (bearing passage)
- Free cable passage area with partially closed system:
– 2.76 cm² at the narrowest point (where the section enters the component)
– 7.40 cm² within an enclosed tube
- Simply added rotation limiter for couplings and joints
- Couplings have a small flange which can be fixed to very narrow housings
- "Overhead" installation of all components possible
- Modern industrial design
- Protection system IP 65

Machining drawing for wall joints



For	Part number
Wall joint with horizontal outlet	101.5.1750.00
Wall joint with vertical outlet	101.5.1770.00

Machining drawing for other elements

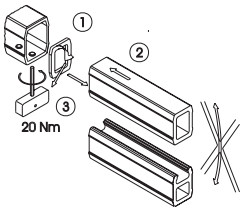


For	Part number
Base bracket coupling	101.5.1670.00
Angled base bracket coupling	101.5.1680.00
Base bracket, rotating	101.5.1780.00
Set-up joint	101.5.1750.00
Base bracket/wall flange	101.5.1790.00

Link profile

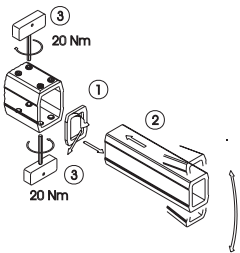
CS-2000 SL 45/60

Installation of the link profiles



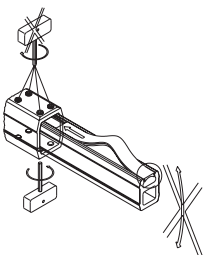
[A] Open or closed section in couplings and elbows:

Attach seal to link section (1), mount link section onto suspension system components (2, 3).



[B] Closed section in suspension system components with 8 fastening screws:

Attach seal to link section (1), mount link section into suspension system components (2, 3), making use of the adjustment facility.



[C] Open section in suspension system components with 8 fastening screws:

Attach seal to link section, mount link section into suspension system components, making sure, however, you only mount using the 4 fastening screws onto the closed part of the tube. Fit cover seal.

Link sections

The link section is an extruded aluminium profile (Al Mg Si 0.5). The surface is clear anodised, so that it has a colour similar to RAL 9006. The link section can be used either with an open cable duct or with a completely closed one. The partially open section has a cover made from EPDM, similar to RAL 7042. This flexible plastic cover can easily be pulled out and pushed back in place.

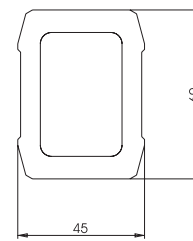
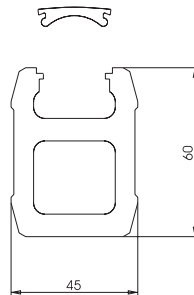
Weight

Open profile: 3.76 kg/m
Closed profile: 3.50 kg/m



Open profile	
Dimensions (mm)	Part number
45 x 60 x 250	952.4.0010.00
45 x 60 x 500	952.4.0020.00
45 x 60 x 750	952.4.0030.00
45 x 60 x 1000	952.4.0040.00
45 x 60 x 1250	952.4.0050.00
45 x 60 x 1500	952.4.0060.00
45 x 60 x 2000	952.4.0080.00

Closed profile	
Dimensions (mm)	Part number
45 x 60 x 250	952.4.3010.00
45 x 60 x 500	952.4.3020.00
45 x 60 x 750	952.4.3030.00
45 x 60 x 1000	952.4.3040.00
45 x 60 x 1250	952.4.3050.00
45 x 60 x 1500	952.4.3060.00
45 x 60 x 2000	952.4.3080.00



Turn to page 344 ff + to select
– Loading capacity
– Cable routing cross-section

System components

Light-weight suspension system for small loads

Type CS-2000 SL System size 45/60

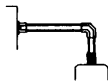
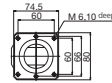


For enclosure mounting
Coupling CS-2000 SL

Part	
Weight	(g)
Part number	

740
101.5.1630.00
Angle of rotation 300° with limiter
Complete with installation fixings, seals and instructions for installation

Dimensions in mm



980.5.1290.00

Detail
Accessories, can be retro-fitted
Rotation limiter (see page 426)

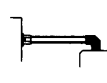
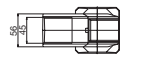
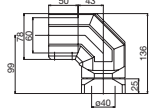
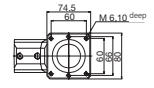


For enclosure mounting
Elbow coupling CS-2000 SL

Part	
Weight	(g)
Part number	

960
101.5.1650.00
Cable installation access with plastic clip-on cover
Angle of rotation 300° with limiter.
Complete with installation fixings, seals and instructions for installation

Dimensions in mm



980.5.1290.00

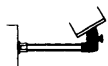
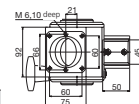
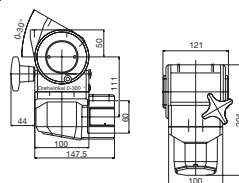


For enclosure mounting
Adjustable angle elbow coupling CS-2000 SL

Part	
Weight	(g)
Part number	

3300
101.5.1700.00
Angle of rotation 300° with limiter
Inclination angle infinitely adjustable 0–30°
Complete with installation fixings and seals
Housing max. 300N

Dimensions in mm



980.5.1300.00

Detail
Accessories, can be retro-fitted
Rotation limiter (see page 426)

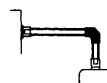
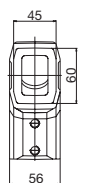
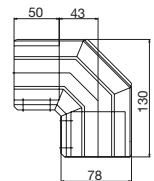


Elbow CS-2000 SL

Part	
Weight	(g)
Part number	

590
101.5.1710.00
Cable installation access with plastic clip-on cover
Complete with seals and instructions for installation

Dimensions in mm



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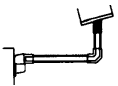
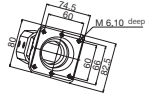
For enclosure mounting
Angled coupling CS-2000 SL

1100

101.5.1640.00

Inclined angle 15°.
Angle of rotation 300°
with limiter
Complete with installation
fixings, seals and
instructions for installa-
tion

Dimensions in mm



980.5.1290.00



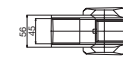
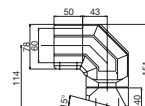
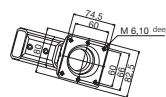
For enclosure mounting
Angled elbow coupling CS-2000 SL

1400

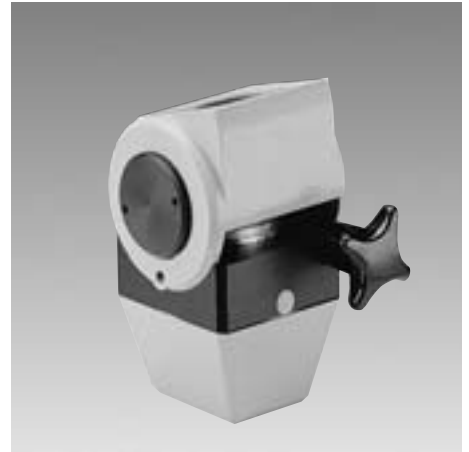
101.5.1660.00

Inclined angle 15°
Cable installation access
with plastic clip-on cover
Angle of rotation 300°
with limiter
Complete with installa-
tion fixings, seals and
instructions for installa-
tion

Dimensions in mm



980.5.1290.00



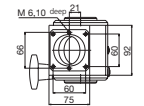
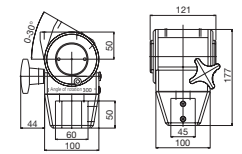
For enclosure mounting
Swivel tilt coupling CS-2000 SL

3000

101.5.1690.00

Angle of rotation 300°
with limiter
Inclination angle infinite-
ly adjustable 0–30°
Complete with installa-
tion fixings and seals
Housing max. 300 N

Dimensions in mm



980.5.1300.00



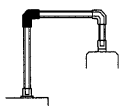
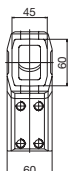
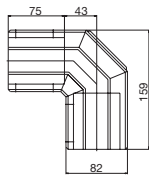
Elbow for moment load CS-2000 SL

1000

101.5.1720.00

Elbow with reinforced
wall strength
Link section adjustment
Cable installation access
with plastic clip-on cover
Complete with seals and
instructions for installation

Dimensions in mm



-



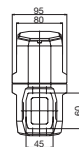
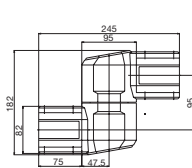
Intermediate join CS-2000 SL

2130

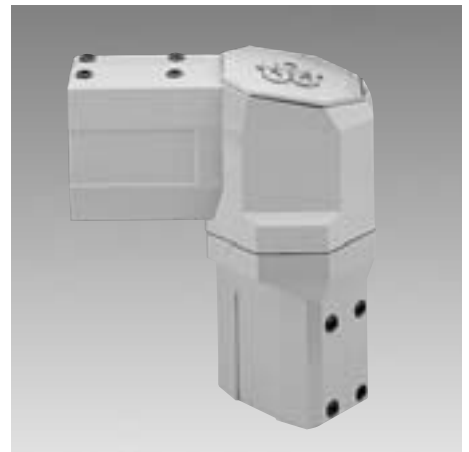
101.5.1740.00

Pivoting angle 360° with
limiter
Cable installation access
on both sides
Link section adjustment
Complete with seals and
instructions for installa-
tion

Dimensions in mm



980.5.1320.00



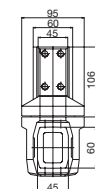
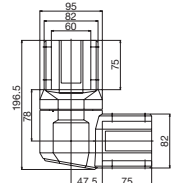
Rotation elbow CS-2000 SL

1850

101.5.1730.00

Rotation angle 300° with
limiter
Link section adjustment
Cable installation access
with clip-on plastic cover
Complete with seals and
instructions for installa-
tion

Dimensions in mm



980.5.1320.00


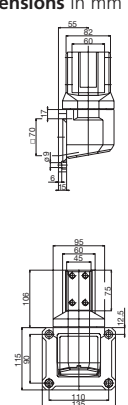
System components

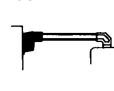
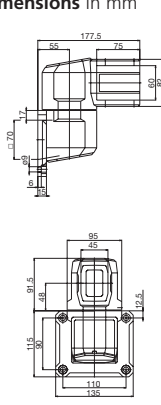
Light-weight suspension system for small loads

Type CS-2000 SL System size 45/60

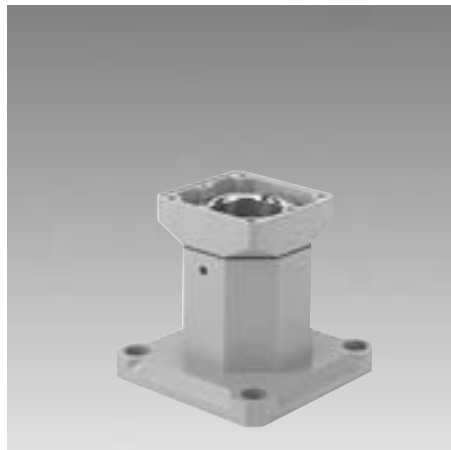


Part	
Weight	(g)
Part number	


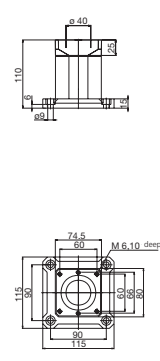
Wall joint with vertical outlet CS-2000 SL	
1840	Dimensions in mm
101.5.1770.00	
Pivoting angle 300° with limiter	
Link section adjustment	
Cable installation access with clip-on plastic cover	
Complete with seals and instructions for installation	
	
980.5.1320.00	


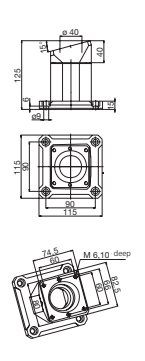
Wall joint with horizontal outlet CS-2000 SL	
2090	Dimensions in mm
101.5.1760.00	
Pivoting angle 300° with limiter	
Link section adjustment	
Cable installation access with clip-on plastic cover	
Complete with seals and instructions for installation	
	
980.5.1320.00	

Detail	
Accessories , can be retro-fitted	
Rotation limiter (see page 426)	



Part	
Weight	(g)
Part number	

Base bracket coupling CS-2000 SL	
1180	Dimensions in mm
101.5.1670.00	
Integrated component	
Pivoting angle 300° with limiter	
Complete with installation fixings, seals and instructions for installation	
	
980.5.1290.00	

Angled base bracket coupling CS-2000 SL	
1200	Dimensions in mm
101.5.1680.00	
Pivoting angle of 300° with limiter	
Fixed incline of 15°	
Complete with installation fixings, seals and instructions for installation	
	
980.5.1290.00	

Detail	
Accessories , can be retro-fitted	
Rotation limiter (see page 426)	



Set-up joint CS-2000 SL

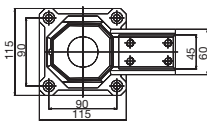
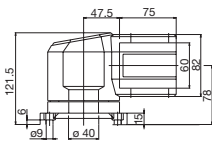
1720

101.5.1750.00

Pivoting angle 300° with limiter

Link section adjustment
Cable installation access with clip-on plastic cover
Complete with seals and instructions for installation

Dimensions in mm



980.5.1320.00



Base bracket, turnable, CS-2000 SL

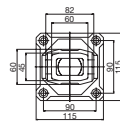
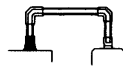
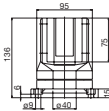
1460

101.5.1780.00

Pivoting angle 300° with limiter

Link section adjustment
Complete with seals and instructions for installation

Dimensions in mm



980.5.1320.00



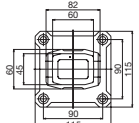
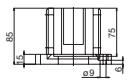
Base/wall flange CS-2000 SL

690

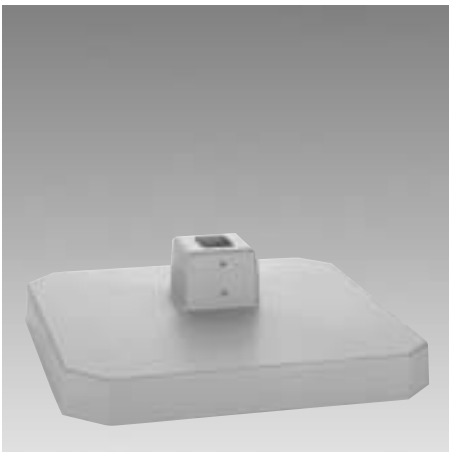
101.5.1790.00

Link section adjustment
Complete with seals and instructions for installation

Dimensions in mm



-



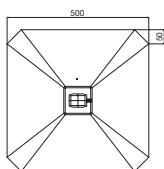
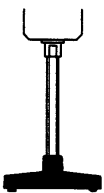
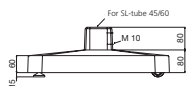
Free standing base CS-2000 SL

11820

101.5.1800.00

Large surface foot for stable, free standing applications

Dimensions in mm



-

Leight-weight suspension system CS-2000 SL

Panel components



Application areas

In many industrial applications a trend to decentralised operate and visualisation units can be observed. The used terminals usually show a flat shape, because control intelligence is no longer integrated. Flat terminals often cannot be used close to a machine by a suspension system, because the building depth does not permit an attachment of the suspension system from top or bottom. In this case a connection over the rear wall is necessary.

Variety of configurations

The panel components allow a rear connection and have the advantage of being integrated into the conventional light-weight suspension system CS-2000 SL. For the user the complete configuration variety of an approved suspension system is so available also for this application.

Variations:

- Panel coupling with vertical connection
- Panel elbow coupling with horizontal connection
- Panel-swivel tilt coupling horizontal
- Panel-swivel tilt coupling vertical

Quality and availability

BERNSTEIN provides a high quality standard. All panel components are available from stock.

Panel components



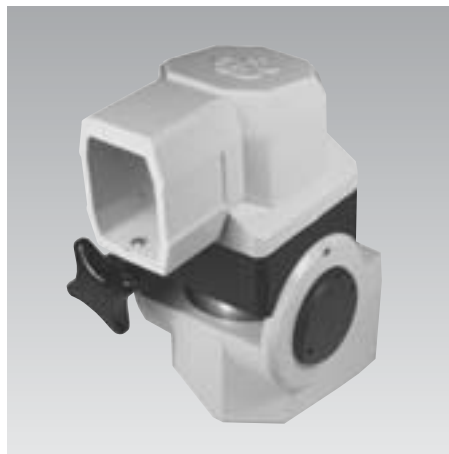
Panel coupling

Part number 101.5.2320.00 (Standard)
Part number 101.5.2510.00 (Beckhoff)



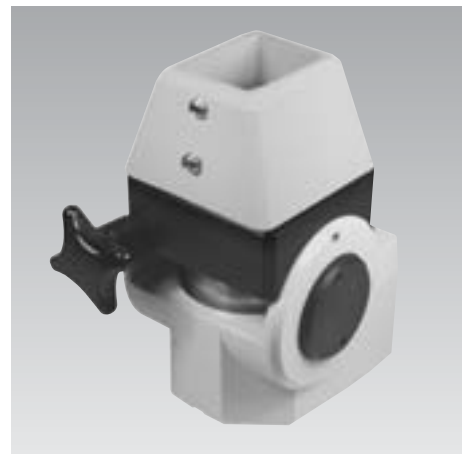
Panel elbow coupling

Part number 101.5.2330.00 (Standard)
Part number 101.5.2520.00 (Beckhoff)



Panel swivel tilt coupling V/H

Part number 101.5.2360.00 (Standard)
Part number 101.5.2540.00 (Beckhoff)

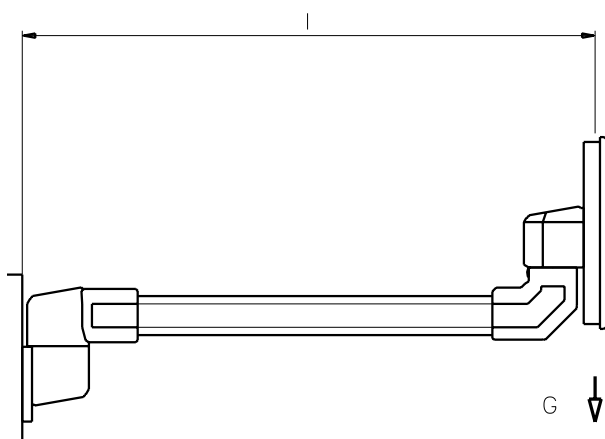


Panel swivel tilt coupling V

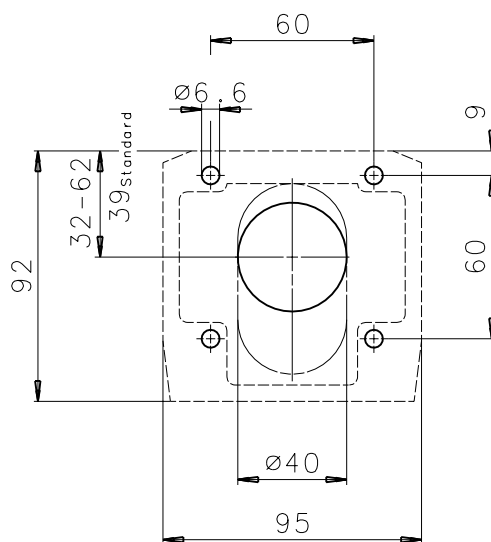
Part number 101.5.2350.00 (Standard)
Part number 101.5.2530.00 (Beckhoff)

Technical data

Load capacity



Machining drawing for enclosure rear wall



Mechanical characteristics

Max. load capacity G	250 N
Max. system length	1500 mm

Materials

Components	AlSi12 (Cu) - Chilled casting
Installation opening	POM
Bearing	PA
Gaskets	CR

Operating and ambient conditions

Protection class	IP 54 according EN 60529
Temperature range	-25 °C ... + 80 °C

Scope of services

Scope of supply	Panel components incl. gasket and mounting instruction
Colouring	RAL 7035 (Standard) / RAL 7012 (Beckhoff)
Availability	from stock