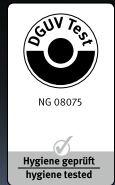


# Rittal – The System.

Faster – better – everywhere.

## ► Hygienic Design and Stainless Steel



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP

## Precisely engineered for your applications

The new HD enclosures are available with screw covers for smaller, integrated applications or hinged doors for larger installations. Both are created from 304 stainless steel with a 400 grain brushed surface. Wall and door surfaces are angled to prevent objects from adhering so water runs off easily.

## Ready to adapt to on-site demands

HD enclosures can be mounted with rounded stand-off brackets on the back to improve the flow of water around the unit during wash-down procedures. And, using optional hardware, larger HD enclosures can be mounted on HD leveling feet and fitted with a wire shelf to assist with cable routing.

- All mounting threads are concealed to keep them free of debris and contaminants
- Optional stainless steel cable glands have smooth, solid exterior surfaces and are self-sealing to enable high-pressure washing

## Tight seals every time

Continuous silicone seal door gaskets can be easily replaced as necessary—without special tools. The blue gaskets align with a specifically-engineered fitted channel for a tight seal without any adhesive. The distinctive color makes any particulate splashed on the seal stand out for easier recognition and removal.



### Rittal's new HD enclosures provide design engineers with more options and added versatility.

Consider...

- Shorter cleaning times while using less water and fewer chemicals
- Reduced downtime for cleaning/maintenance
- Significantly reduced risk of contamination
- Enhanced protection for customers/employees
- Built and tested to NEMA 4X specifications
- FDA approved gasket material





**Material:**

- Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
- Mounting bracket: Sheet steel, zinc-plated, passivated, 2.0 mm
- Quick-release fasteners: Stainless steel
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

**Surface finish:**

- Enclosure and cover: Brushed finish, grain 400,  $R_A < 0.8 \mu\text{m}$
- Seal: Blue, dyed (RAL 5010)

**Protection category:**

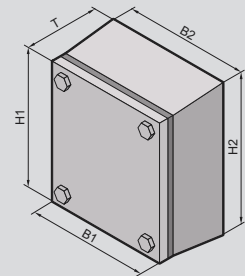
- IP 66 to IEC 60 529
- IP 69K to DIN 40 050-9
- Compliant with NEMA 13
- Compliant with NEMA 4X
- Compliant with NEMA 3R

**Supply includes:**

- Enclosure of all-round solid construction
- Cover
- Mounting bracket (pre-assembled)
- Seal and quick-release locks (supplied loose)

**Detailed drawings:**

Available on the Internet.



## Terminal boxes HD

Width	Front (B1) mm	Packs of	150	150	200	300	400	400
	Rear (B2) mm		172	177	227	327	427	427
Height	Front (H1) mm		150	150	200	200	200	300
	Rear (H2) mm		172	177	227	227	227	327
Depth	(T) mm		80	120	120	120	120	120
Model No. HD		1	<b>1670.600</b>	<b>1671.600</b>	<b>1672.600</b>	<b>1674.600</b>	<b>1675.600</b>	<b>1676.600</b>
<b>Accessories</b>								
Wall spacer bracket HD		1	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100
Mounting plate		1	1560.700	1560.700	1562.700	1563.700	1564.700	1568.700
Support rail TS 35/7.5		10	2314.000	2314.000	2315.000	2316.000	2317.000	2317.000
Cable gland HD			See page 06					

# Hygienic Design



**Material:**

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Mounting plate: Sheet steel
- Lock inserts HD: Stainless steel 1.4404
- (AISI 316L) Stainless steel
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

**Surface finish:**

- Enclosure and door: Brushed finish, grain size 400,  $R_A < 0.8 \mu\text{m}$
- Mounting plate: Zinc-plated
- Seal: Blue, dyed (RAL 5010)

**Protection category:**

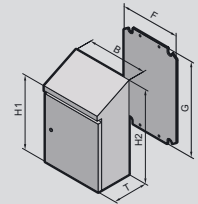
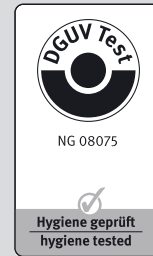
- IP 66 to IEC 60 529
- IP 69K to DIN 40 050-9
- Compliant with NEMA 13
- Compliant with NEMA 4X

**Supply includes:**

- Enclosure of all-round solid construction
- Door with press-fitted seal
- Interchangeable door hinge
- Mounting plate

**Detailed drawings:**

Available on the Internet.



## Compact enclosures HD, single-door

Width	(B) mm	Packs of	220	390	390	510	610	610	810	810
Height	Front (H1) mm		350	430	650	550	430	650	1050	1250
	Rear (H2) mm		437	549	769	669	601	769	1221	1421
Depth	(T) mm		155	210	210	210	300	210	300	300
Mounting plate width (F) mm			162	334	334	449	549	549	739	740
Mounting plate height (G) mm			275	355	570	470	355	570	955	1155
<b>Model No. HD</b>		1	<b>1302.600</b>	<b>1306.600</b>	<b>1308.600</b>	<b>1307.600</b>	<b>1320.600</b>	<b>1310.600</b>	<b>1316.600</b>	<b>1317.600</b>
<b>Accessories</b>										
Wall spacer bracket HD		1	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100
Cable gland HD			See page 06							
Rails for interior installation			See page 07							

# Hygienic Design

## Accessories

### Levelling feet HD

for TS 8

**Benefits:**

- Minimises cleaning time thanks to fully covered, permanently sealed threads.
- Compensation of floor inclines up to an angle of 10° thanks to flexible base plate.
- Baying can even be achieved on sloping floors, thanks to a large levelling range of 55 mm.

**Load capacity:**

Max. 5000 N static per levelling foot.

**Material:**

Stainless steel 1.4301 (AISI 304)

**Supply includes:**

Assembly parts and seals.

Thread	Levelling range mm	Base mount	Packs of	Model No. HD
M12	120 – 175	without	4	4000.200
		with	4	4000.210



### Wall spacer bracket HD

**Benefits:**

- Creates space for cleaning behind the enclosure
- Shorter assembly times by eliminating the need for an all-round seal.
- Greater hygiene safety by avoiding an uncontrollable dead space or gap between the enclosure and wall.

**Functional principle:**

- Mounting on the wall optionally from the enclosure interior via a through-hole (max. M8) or from the rear via an integral M10 thread.

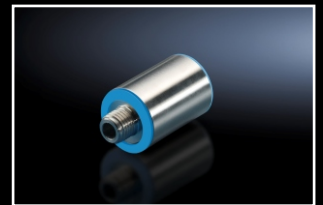
**Material:**

Stainless steel 1.4301 (AISI 304)

**Supply includes:**

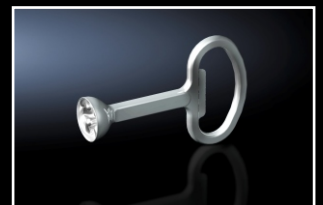
Assembly parts and seals.

Wall distance mm	Packs of	Model No. HD
50	1	4000.100



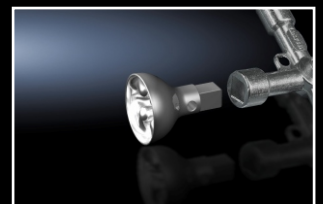
### Enclosure key HD

Packs of	Model No. HD
1	2549.600



### Bit HD

Packs of	Model No. HD
1	2549.510



### Cam lock HD

Hygienic Design variant for easy, safe cleaning.

**Applications:**

- Compact enclosures AE stainless steel (except AE 1017.XXX and AE 1019.XXX).
- May be integrated into customised applications, e.g. covers of machine panels.

**Material:**

Stainless steel 1.4404 (AISI 316L)

Packs of	Model No. HD
1	2304.010

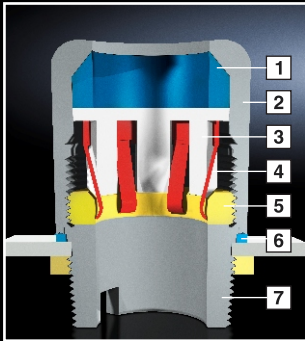
**+** **Accessories:**

Enclosure key HD, 2549.600

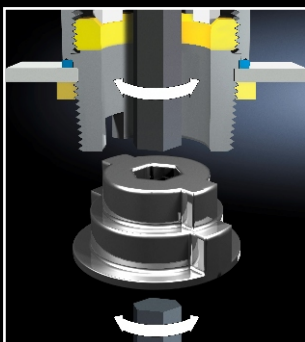
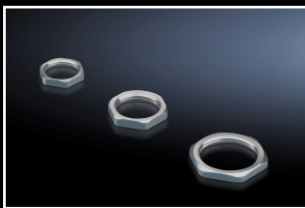


# Hygienic Design

## Accessories



- 1 Seal
- 2 Cap nut
- 3 Gripper jaws
- 4 Shield spring (EMC version only)
- 5 Clamping ring
- 6 Enclosure seal
- 7 Base with locator for assembly tool



### Cable gland HD

#### Applications:

- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical Industry

#### Benefits:

- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms.
- Much easier, and therefore cheaper to clean compared with conventional cable glands.

#### Material:

- Cap nut: Stainless steel 1.4305 (AISI 303)
- Seal: Conforms to FDA 21 CFR 177.2600

#### Protection category:

- IP 68 (5 bar, 30 min.) to IEC 60 529
- IP 69K to DIN 40 050-9

#### Standard version

Size	Cable diameter mm	Packs of	Model No. HD
M12 x 1.5	3 – 6.5	5	2410.000
M16 x 1.5	4,5 – 10	5	2410.010
M20 x 1.5	6 – 12	5	2410.020
M25 x 1.5	11 – 17	5	2410.030

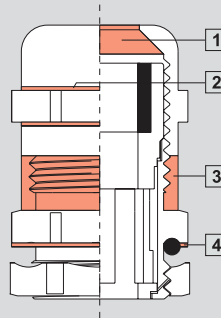
#### EMC version

Size	Cable diameter mm	Packs of	Model No. HD
M16 x 1.5	5 – 10	5	2410.110
M20 x 1.5	6 – 12	5	2410.120
M25 x 1.5	12 – 17	5	2410.130

### Why hygiene-compatible cable glands?

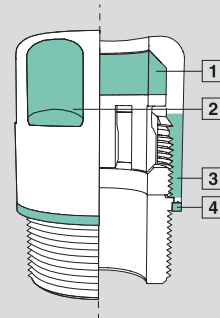
#### Critical points with conventional solutions

- 1 Cable entry in front of seal
- 2 No minimum radii on the hexagon
- 3 External thread
- 4 Gap caused by O-ring on the enclosure surface



#### Hygiene-compatible design features

- 1 Seal directly at the cable entry
- 2 Compliance with minimum radii on the hexagon
- 3 No external thread
- 4 Flush termination between the cap nut and the enclosure



### Stainless steel lock nut

To match HD cable glands.

#### Material:

Stainless steel 1.4305 (AISI 303)

Size	Packs of	Model No. HD
M12 x 1.5	10	2410.200
M16 x 1.5	10	2410.210
M20 x 1.5	10	2410.220
M25 x 1.5	10	2410.230

### Assembly tool

#### for HD cable glands

For attaching HD cable glands in an internal thread or using lock nuts. This can be achieved either from the inside or from the outside using an Allen key.

#### Supply includes:

1 set = Adaptor for sizes from M12 – M25.

Packs of	Model No. HD
1 set	2410.290

# Hygienic Design

## Accessories

### Rails for interior installation

#### for compact enclosures HD

For mounting on the existing threaded bolts.  
With TS system punchings on three sides.

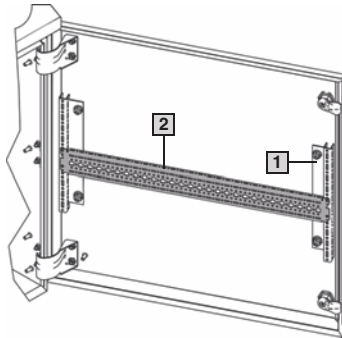
#### Material:

Sheet steel, zinc-plated



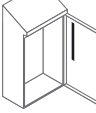
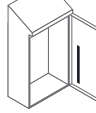
#### Supply includes:

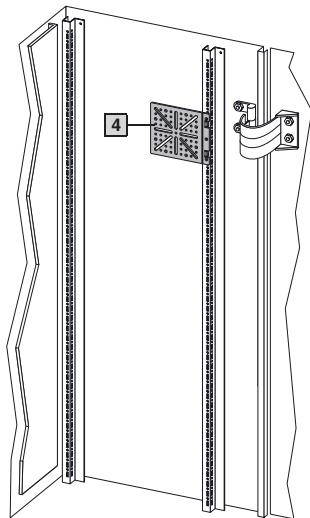
Assembly parts.

Length mm	Packs of	Model No. CM
510	4	5001.050
710	4	5001.051
910	4	5001.052
1110	4	5001.053







#### Interior installation, door

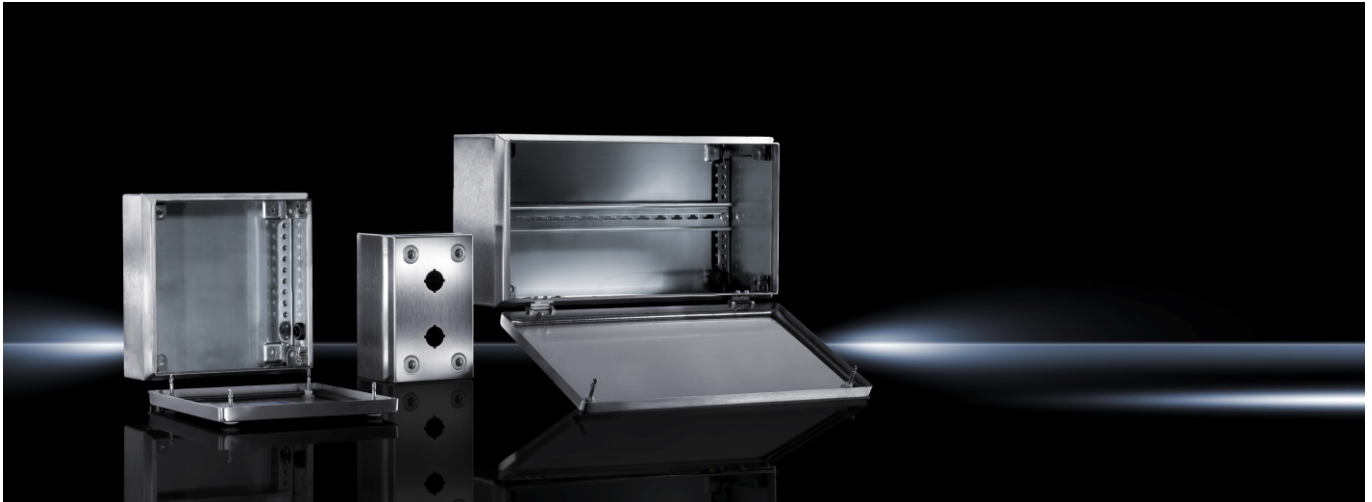
Enclosure	1	1	1
			
Model No. HD	Model No. CM		
1316.600	5001.052	5001.050	5001.050
1317.600	5001.053	5001.051 5001.050	5001.051 5001.050



#### Interior installation, enclosure

Enclosure	1	3	4
	Rails for interior installation 	TS punched section without mounting flange, 17 x 73 mm 	Mounting plates 
Model No. HD	Model No. CM	Model No. TS	
1308.600 1310.600	5001.050	-	-
1316.600	5001.052	8612.130 (only on lock side)	8612.400 8612.410
1317.600	5001.053	8612.130 (only on lock side)	8612.400 8612.410





**Material:**

- Enclosure: Stainless steel 1.4301 (AISI 304), 1,25 mm
- Cover: Stainless steel 1.4301 (AISI 304), 1,25 mm, all-round foamed-in PU-seal

**Surface finish:**

- Enclosure and cover: Brushed, grain size 240 or 180 (for terminal boxes)

**Protection category:**

IP 66 to IEC 60 529, complies with NEMA 4X.

**Supply includes:**

- Enclosure with cover
- Product-specific supply scope, see tables

**Approvals:**

**Terminal boxes KL**

- UL
- CSA
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas
- VDE

**Bus enclosures BG**

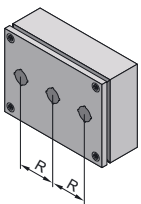
- TÜV
- Lloyds Register of Shipping
- VDE
- UL
- cUL

**Detailed drawings:**

Available on the Internet.

Photo shows a configuration example with equipment not included in the scope of supply.

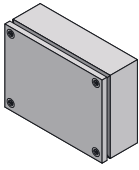
## Switch housing



	Width mm	Packs of	100	160	220	280
<b>Height mm</b>			100	100	100	100
<b>Depth mm</b>			90	90	90	90
<b>Model No. SM</b>		1	<b>2384.010</b>	<b>2384.020</b>	<b>2384.030</b>	<b>2384.040</b>
Pitch pattern (R) mm			–	60	60	60
No. of switch cut-outs, Ø 22.5 mm			1	2	3	4
Number of quick-release fasteners			2	4	4	4
<b>Accessories</b>						
Wall mounting bracket	4		1594.000	1594.000	1594.000	1594.000
Pressure relief stoppers	5		2459.500	2459.500	2459.500	2459.500
Cable gland HD			See page 06			

# Stainless Steel

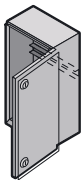
## Terminal boxes KL



<b>Width mm</b>	Packs of	150	150	300	200	200
<b>Height mm</b>		150	150	150	200	200
<b>Depth mm</b>		80	120	80	80	120
<b>Model No. KL</b>	1	<b>1521.010</b>	<b>1527.010</b>	<b>1522.010</b>	<b>1523.010</b>	<b>1528.010</b>
Weight (kg)		1.3	1.6	1.8	1.8	2.2
Number of quick-release fasteners		4	4	4	4	4
<b>Accessories</b>						
Mounting plate	1	1560.700	1560.700	1561.700	1562.700	1562.700
Wall mounting bracket	4	1594.000	1594.000	1594.000	1594.000	1594.000
Wall angle	4	2583.010	2583.010	2583.010	2583.010	2583.010
Pole clamp	1	2584.000	2584.000	2584.000	2584.000	2584.000
Support rails TS 35/7.5	10	2314.000	2314.000	2316.000	2315.000	2315.000
Cover hinge, stainless steel 1.4404	2	1592.010	1592.010	1592.010	1592.010	1592.010
Pressure relief stoppers	5	2459.500	2459.500	2459.500	2459.500	2459.500

<b>Width mm</b>	Packs of	300	300	400	300	400
<b>Height mm</b>		200	200	200	300	300
<b>Depth mm</b>		80	120	120	120	120
<b>Model No. KL</b>	1	<b>1524.010</b>	<b>1529.010</b>	<b>1525.010</b>	<b>1526.010</b>	<b>1530.010</b>
Weight (kg)		2.4	2.9	3.6	3.9	4.6
Number of quick-release fasteners		4	4	4	4	4
<b>Accessories</b>						
Mounting plate	1	1563.700	1563.700	1564.700	1567.700	1568.700
Wall mounting bracket	4	1594.000	1594.000	1594.000	1594.000	1594.000
Wall angle	4	2583.010	2583.010	2583.010	2583.010	2583.010
Pole clamp	1	2584.000	2584.000	2584.000	2584.000	2584.000
Support rails TS 35/7.5	10	2316.000	2316.000	2317.000	2316.000	2316.000
Cover hinge, stainless steel 1.4404	2	1592.010	1592.010	1592.010	1592.010	1592.010
Pressure relief stoppers	5	2459.500	2459.500	2459.500	2459.500	2459.500

## Bus enclosures BG



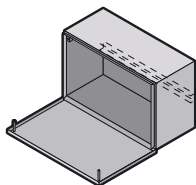
<b>Width mm</b>	Packs of	200	300	400
<b>Height mm</b>		300	300	300
<b>Depth mm</b>		80	80	80
<b>Model No. BG</b>	1	<b>1583.010<sup>1)</sup></b>	<b>1584.010<sup>1)</sup></b>	<b>1585.010<sup>1)</sup></b>
Weight (kg)		2.8	3.7	4.5
Number of quick-release fasteners		2	2	2

### Product-specific supply scope

Support rail TS 35/7.5	1	■	■	■
180° hinge, die-cast zinc, chrome-plated	2	■	■	■

### Accessories

Wall mounting bracket	4	1594.000	1594.000	1594.000
Pole clamp	1	2584.000	2584.000	2584.000
Condensate discharge	6	2459.000	2459.000	2459.000



<b>Width mm</b>	Packs of	400	600
<b>Height mm</b>		200	200
<b>Depth mm</b>		123	123
<b>Model No. BG</b>	1	<b>1558.010<sup>2)</sup></b>	<b>1559.010<sup>2)</sup></b>
Weight (kg)		4.5	6.0
Number of quick-release fasteners		2	3

### Product-specific supply scope

Support rail TS 35/7.5	1	■	■
180° hinge, die-cast zinc, chrome-plated	2	■	■

### Accessories

Wall mounting bracket	4	1594.000	1594.000
Pole clamp	1	2584.000	2584.000
Condensate discharge	6	2459.000	2459.000

<sup>1)</sup> Support rail fixed on studs

<sup>2)</sup> Support rail adjustable on profile strip



**Material:**

- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel
- Locks: Die-cast zinc

**Surface finish:**

- Enclosure and door: Brushed, grain 240
- Mounting plate: Zinc-plated
- Locks: Nickel-plated

**Protection category:**

See tables.

**Supply includes:**

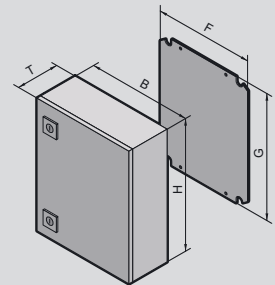
- Enclosure with door(s)
- Cam lock or 3-point lock system (for AE 1017.X00 and AE 1019.X00) with double-bit insert
- Mounting plate

**Approvals:**

- UL
- CSA
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- Bureau Veritas
- VDE

**Detailed drawings:**

Available on the Internet.



## Compact enclosures AE

		Packs of	200	200	200	300	380	380
<b>Width (B) mm</b>			200	200	200	300	380	380
<b>Height (H) mm</b>			300	300	300	300	300	300
<b>Depth (T) mm</b>			120	155	155	210	155	210
Mounting plate width (F) mm			162	162	162	254	334	334
Mounting plate height (G) mm			275	275	275	275	275	275
<b>Model No. AE</b>			<b>1001.600</b>	<b>1002.600</b>	<b>1002.500</b>	<b>1003.600</b>	<b>1004.600</b>	<b>1011.600</b>
Material	1.4301 (AISI 304)	1	■	■	–	■	■	■
	1.4404 (AISI 316L)	1	–	–	■	–	–	–
Door			1	1	1	1	1	1
Weight (kg)			3.6	4.1	4.1	6.9	7.4	8.4
<b>Protection category</b>			IP 66 to IEC 60 529, complies with NEMA 4X					
<b>Accessories</b>								
Rails for interior installation		4	–	–	–	2373.210	–	2373.210
Rain canopy	1.4301 (AISI 304)	1	–	2470.000	2470.000	2361.000	2471.000	2472.000
Wall mounting bracket	1.4301 (AISI 304)	4	2433.000	2433.000	–	2433.000	2433.000	2433.000
	1.4404 (AISI 316L)	4	–	–	2433.500	–	–	–
Wall angle	1.4301 (AISI 304)	4	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010
Pole clamp		1	2584.000	2584.000	2584.000	2584.000	2584.000	2584.000
Cam lock 1.4404 (AISI 316L)	Standard	1	2304.000	2304.000	2304.000	2304.000	2304.000	2304.000
	Hygienic Design	1	2304.010	2304.010	2304.010	2304.010	2304.010	2304.010

# Stainless Steel

## Compact enclosures AE

<b>Width (B) mm</b>	Packs of	300	300	380	380	600	400
<b>Height (H) mm</b>		380	380	380	380	380	500
<b>Depth (T) mm</b>		210	210	210	210	210	210
Mounting plate width (F) mm		275	275	334	334	549	354
Mounting plate height (G) mm		334	334	355	355	355	475
<b>Model No. AE</b>	1	<b>1005.600</b>	<b>1005.500</b>	<b>1006.600</b>	<b>1006.500</b>	<b>1009.600</b>	<b>1015.600</b>
Material	1.4301 (AISI 304)	■	–	■	–	■	■
	1.4404 (AISI 316L)	–	■	–	■	–	–
Door		1	1	1	1	1	1
Weight (kg)		8.4	8.4	9.8	9.8	14.6	12.9
<b>Protection category</b>	IP 66 to IEC 60 529, complies with NEMA 4X						
<b>Accessories</b>							
Rails for interior installation	4	2373.210	2373.210	2373.210	2373.210	2373.210	2373.210
Rain canopy	1.4301 (AISI 304)	1	2361.000	2361.000	2472.000	2472.000	–
Wall mounting bracket	1.4301 (AISI 304)	4	2433.000	–	2433.000	–	2433.000
	1.4404 (AISI 316L)	4	–	2433.500	–	2433.500	–
Wall angle	1.4301 (AISI 304)	4	2583.010	2583.010	2583.010	2583.010	2583.010
Pole clamp		1	2584.000	2584.000	2584.000	2584.000	2584.000
Cam lock 1.4404 (AISI 316L)	Standard	1	2304.000	2304.000	2304.000	2304.000	2304.000
	Hygienic Design	1	2304.010	2304.010	2304.010	2304.010	2304.010

<b>Width (B) mm</b>	Packs of	500	500	380	600	600	600
<b>Height (H) mm</b>		500	500	600	600	600	760
<b>Depth (T) mm</b>		210	300	210	210	210	210
Mounting plate width (F) mm		449	449	334	549	549	549
Mounting plate height (G) mm		470	470	570	570	570	730
<b>Model No. AE</b>	1	<b>1007.600</b>	<b>1013.600</b>	<b>1008.600</b>	<b>1010.600</b>	<b>1010.500</b>	<b>1012.600</b>
Material	1.4301 (AISI 304)	■	■	■	■	–	■
	1.4404 (AISI 316L)	–	–	–	–	■	–
Door		1	1	1	1	1	1
Weight (kg)		15.7	18.4	15.1	23.5	23.5	30.2
<b>Protection category</b>	IP 66 to IEC 60 529, complies with NEMA 4X						
<b>Accessories</b>							
Rails for interior installation	4	2373.210	2373.300	2373.210	2373.210	2373.210	2373.210
Rain canopy	1	2362.000	–	2472.000	2473.000	2473.000	2473.000
Wall mounting bracket	1.4301 (AISI 304)	4	2433.000	2433.000	2433.000	2473.000	–
	1.4404 (AISI 316L)	4	–	–	–	–	2433.500
Wall angle	1.4301 (AISI 304)	4	2583.010	2583.010	2583.010	2583.010	2583.010
Pole clamp		1	2584.000	2584.000	2584.000	2584.000	2584.000
Cam lock 1.4404 (AISI 316L)	Standard	1	2304.000	2304.000	2304.000	2304.000	2304.000
	Hygienic Design	1	2304.010	2304.010	2304.010	2304.010	2304.010

## Compact enclosures AE

<b>Width (B) mm</b>	Packs of	760	800	800	1000	1000	1000
<b>Height (H) mm</b>		760	1000	1200	1000	1200	1200
<b>Depth (T) mm</b>		300	300	300	300	300	300
Mounting plate width (F) mm		704	739	740	939	940	940
Mounting plate height (G) mm		730	955	1155	955	1155	1155
<b>Model No. AE</b>	1	<b>1014.600</b>	<b>1016.600</b>	<b>1017.600</b>	<b>1018.600</b>	<b>1019.600</b>	<b>1019.500</b>
Material	1.4301 (AISI 304)	■	■	■	■	■	–
	1.4404 (AISI 316L)	–	–	–	–	–	■
3-point lock system		–	–	■	–	■	■
Door(s)		1	1	1	2	2	2
Weight (kg)		42.5	52.9	61.5	71.0	76.0	76.0
<b>Protection category</b>		IP 66 to IEC 60 529, complies with NEMA 4X			IP 55 to IEC 60 529, complies with NEMA 12		
<b>Accessories</b>							
Rails for interior installation	4	2373.300	2373.300	2373.300	2373.300	2373.300	2373.300
Rain canopy	1	2474.000	2475.000	2475.000	2363.000	2363.000	2363.000
Wall mounting bracket	1.4301 (AISI 304)	4	2433.000	2433.000	2433.000	2433.000	–
	1.4404 (AISI 316L)	4	–	–	–	–	2433.500
Wall angle	4	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010
Cam lock 1.4404 (AISI 316L)	Standard	1	2304.000	2304.000	–	2304.000	–
	Hygienic Design	1	2304.010	2304.010	–	2304.010	–

# Stainless Steel



### Perfect protection in a tough environment

The compact enclosure AE in IP 69K is the ideal solution when a high protection category combined with corrosion resistance are needed.

- **Resistant to high-pressure cleaning** (protection category IP 69K). The interior seal is protected against direct hosed water.
- Ideal for mounting on vehicles: Lock, hinges and mounting plate are all vibration resistant.
- 10° roof tilt prevents liquids from accumulating on the roof.
- Foamed-in silicone seal. The closed cell structure of the foam means that water absorption is negligible.
- Temperature resistant from -60°C to +180°C.

### Material:

- Enclosure, hinge and lock: Stainless steel 1.4301 (AISI 304)
- Door: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal
- Mounting plate: Sheet steel

### Surface finish:

- Enclosure and door: Brushed, grain 240
- Mounting plate: Zinc-plated

### Protection category:

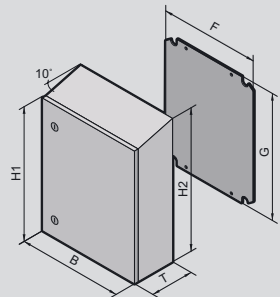
IP 69K to DIN 40 050-9, complies with NEMA 4X.

### Supply includes:

- Enclosure of all-round solid construction
- Single-door
- Interchangeable door hinge
- Cam lock with double-bit insert
- Mounting plate.

### Detailed drawings:

Available on the Internet.



## Compact enclosures AE, protection category IP 69K

	Packs of	230	400	400	650
<b>Width (B) mm</b>					
<b>Height, front (H1) mm</b>		330	400	650	650
<b>Height, rear (H2) mm</b>		352	439	689	689
<b>Depth (T) mm</b>		155	250	250	250
Mounting plate width (F) mm		162	334	334	549
Mounting plate height (G) mm		275	355	570	570
Mounting plate thickness mm		2	2	2.5	2.5
<b>Model No. AE</b>	1	<b>1101.110</b>	<b>1101.120</b>	<b>1101.130</b>	<b>1101.140</b>
Locks		1	1	2	2
<b>Accessories</b>					
Interior door	1	1101.910	1101.920	1101.930	1101.940
Door stay	1	1101.800	1101.800	1101.800	1101.800
Wall mounting bracket, stainless steel 1.4301 (AISI 304)	4	2433.000	2433.000	2433.000	2433.000



**Optionally with or without keyboard housing**

- **Resistant to high-pressure cleaning** (protection category IP 69K). The seal lies between two seals and is optimally compressed by the screw fastening.
- **Suitable for clean room use** Screw fastening to comply with high standards in the food industry. With plastic stoppers on the inside or hex screws on the outside.

• **Optimum EMC conditions**

The labyrinth seal achieves a particularly high level of RF shielding of the enclosure.

• **Accessibility**

Internal rear panel bracket. This solution is clearly superior to external hinges from a hygiene point of view.

• **Handling**

Two duct connectors between the enclosures.

**Material:**

Stainless steel 1.4301 (AISI 304)

**Surface finish:**

Brushed, grain 240

**Protection category:**

IP 69K to DIN 40 050-9

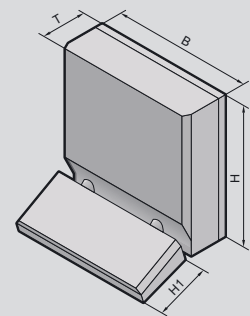
**Clean room:**

Air purity class 1 to DIN EN ISO 14 644-1

**Detailed drawings:**

Available on the Internet.

Photo shows a configuration example with equipment not included in the scope of supply.



## Premium Panel, protection category IP 69K

		Packs of	Premium Panel	
			With keyboard housing	Without keyboard housing
<b>Model No. CP</b>		1	<b>6680.000<sup>1)</sup></b>	<b>6681.000</b>
<b>Width (B) mm</b>			530	530
<b>Height mm</b>	Operating housing (H)		460	360
	Keyboard housing (H1)		200	–
<b>Depth mm</b>	Operating housing (T)		120	120
For installation panel W x H	Operating housing		482.6 mm (19") x 354.8 mm (8 U)	482.6 mm (19") x 310 mm (7 U)
	Keyboard housing		482.6 mm (19") x 177 mm (4 U)	–
Installation depth mm	Operating housing		115	115
	Keyboard housing		Front 58 Rear 63	–
<b>Support arm connection</b>			Top	Top, or bottom by rotating the enclosure

<sup>1)</sup> Extended delivery times.

# Stainless Steel



**Material:**

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Handle strips: Plastic approved for use with foodstuffs

**Surface finish:**

Brushed, grain 240

**Colour:**

Handle strips: similar to RAL 5002

**Protection category:**

IP 66 to IEC 60 529

**Supply includes:**

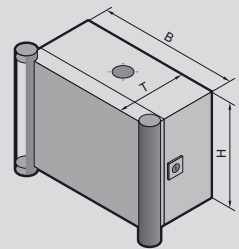
- Enclosure of all-round solid construction
- Cut-out and reinforcement for support arm system
- Fastener with guide plate
- Door with sealing frame and side handle strips
- The support arm connection and door hinge may be swapped over by rotating the enclosure

**Approvals:**

- UL
- cUL

**Detailed drawings:**

Available on the Internet.



## Command panel housing with door

<b>Width (B) mm</b>	Packs of	300	400	400	600
<b>Height (H) mm</b>		300	300	400	400
<b>Depth (T) mm</b>		150	150	150	150
<b>Model No. CP</b>	1	<b>6535.010</b>	<b>6536.010</b>	<b>6538.010</b>	<b>6539.010</b>
Weight (kg)		6.3	7.5	8.8	12.1
<b>Accessories</b>					
Matching mounting plate from AE		1033.500	1030.500	1380.500	1039.500
<b>ID no.</b>		0271.926	0274.131	0271.548	0271.351
Support rails <sup>1)</sup>	<b>Model No. SZ</b>	10	2316.000	2317.000	2319.000

<sup>1)</sup> Only with vertical attachment of punched rail 23 x 23 mm



**Support section CP-S,  
stainless steel**

Attached to the connection components via 2 clamping screws.

**Size:**

- External diameter: 48.3 mm
- Wall thickness: 3 mm

**Material:**

Stainless steel

**Surface finish:**

Brushed, grain size 240  
(support section and wall console only)

**Protection category:**

IP 69K to DIN 40 050-9  
(resistant to high-pressure cleaning)

**Supply includes:**

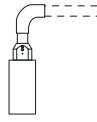

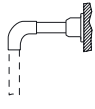



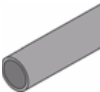



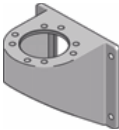
Support section CP-S

**Detailed drawings:**

Available on the Internet.

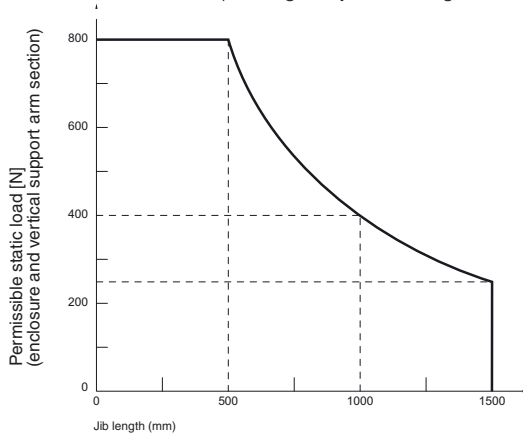


# Stainless Steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Material	Enclosure section 	Desk section 	Wall section 
							Model No. CP		
<b>Tilting adaptor 10°</b>									
		-	■	-	0.7	1.4305 (AISI 303)	<b>6664.100</b>	-	-
<b>Enclosure attachment CP-S, stainless steel</b>									
		-	■	-	1.3	1.4305 (AISI 303)	<b>6664.500</b>	-	-
<b>Housing coupling CP-S stainless steel</b>									
		■	-	-	1.1	1.4305 (AISI 303)	<b>6664.000</b>	-	-
<b>Support section CP-S, stainless steel</b>									
		-	■	500 1000	2.0 3.9	1.4301 (AISI 304)	<b>6660.050 6660.010</b>		
<b>Angle piece 90° CP-S, stainless steel</b>									
		-	■	-	1.3	1.4305 (AISI 303)	<b>6664.300</b>	-	<b>6664.300</b>
<b>Wall/base mount, rigid, CP-S stainless steel</b>									
		-	■	-	1.7	1.4305 (AISI 303)	-	-	<b>6663.000</b>
<b>Wall/base mount, rotating, CP-S stainless steel</b>									
	Rear, thread M8 Front, hole Ø 9 mm	■	-	-	3.9 4.5	1.4305 (AISI 303)	-	-	<b>6663.500 6663.400</b>
<b>Wall console CP-S stainless steel</b>									
	Rear, thread M8 Front, hole Ø 9 mm	-	■	-	1.5 1.8	1.4301 (AISI 304)	-	-	<b>6665.000 6665.500</b>

## Load information

Permissible load depending on system configuration





**Material:**

- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Door or double door and console lid: Stainless steel 1.4301 (AISI 304), 2.0 mm
- Mounting plate: Sheet steel, 3.0 mm

**Surface finish:**

- Enclosure, door, console lid and gland plates: Brushed, grain 120
- Mounting plate: Zinc-plated

**Protection category:**

IP 55 to IEC 60 529, complies with NEMA 12.

**Supply includes:**

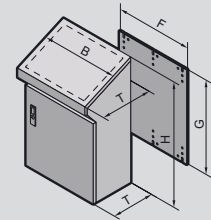
- Enclosure, solid rear and sides
- Door or double door at front, with locking rod
- Console lid with lid stay and cam lock latched in the enclosure
- Cam lock with double-bit insert
- Gland plate, divided
- Mounting plate

**Approvals:**

- UL
- CSA
- TÜV
- Germanischer Lloyd
- Russian Maritime Register of Shipping
- Lloyds Register of Shipping
- VDE

**Detailed drawings:**

Available on the Internet.



## One-piece consoles AP

Width (B) mm	Packs of	600	800	1000	1200	
Height (H) mm		960	960	960	960	
Depth (T) mm	Bottom	400	400	400	400	
	Top	480	480	480	480	
Mounting plate width (F) mm		530	730	930	1130	
Mounting plate height (G) mm		780	780	780	780	
<b>Model No. AP</b>	1	<b>2683.600</b>	<b>2684.600</b>	<b>2685.600</b>	<b>2686.600</b>	
Door(s)		1	1	2	2	
Weight (kg)		52.0	65.2	79.5	90.3	
<b>Accessories</b>						
Base/plinth	Height 100 mm	1	2865.000	2869.000	2867.000	2870.000
	Height 200 mm	1	2875.000	2878.000	2885.000	2886.000
Cable clamp rail	2	4191.000	4192.000	4336.000	4196.000	
Support rail TS 35/15	6	4934.000	4935.000	4933.000	4937.000	

# Stainless steel



### Material:

- Enclosure frame, roof, rear panel and gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Door(s): Stainless steel 1.4301 (AISI 304), 2.0 mm
- Mounting plate: Sheet steel, 3.0 mm

### Surface finish:

- Enclosure frame and gland plates: Uncoated
- Door, roof and rear panel: Exterior brushed, grain size 400
- Mounting plate: Zinc-plated

### Protection category:

IP 55 to IEC 60 529, complies with NEMA 12.

### Supply includes:

- Enclosure frame with door(s)
- Mounting plate
- Gland plates
- Rear panel
- Roof
- Locking rod with double-bit insert

### Note:

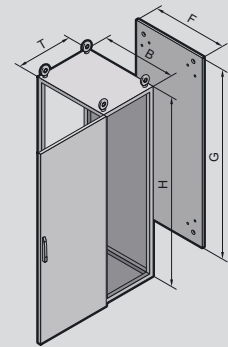
Due to the hardness of the material, we recommend using metal multi-tooth screw SZ 2486.300, for the interior installation

### Approvals:

- UL
- CSA
- TÜV
- Russian Maritime Register of Shipping
- TÜV Mark
- Lloyds Register of Shipping
- Bureau Veritas
- VDE
- Germanischer Lloyd

### Detailed drawings:

Available on the Internet.



## Baying systems TS 8

Width (B) mm	Packs of	800	1200	600	800	1200	600	800	1200	
Height (H) mm		1800	1800	1800	1800	1800	2000	2000	2000	
Depth (T) mm		400	400	500	500	500	600	600	600	
Mounting plate width (F) mm		699	1099	499	699	1099	499	699	1099	
Mounting plate height (G) mm		1696	1696	1696	1696	1696	1896	1896	1896	
<b>Model No. TS</b>	1	<b>8454.600</b>	<b>8456.600</b>	<b>8457.600</b>	<b>8455.600</b>	<b>8453.600</b>	<b>8452.600</b>	<b>8450.600</b>	<b>8451.600</b>	
Door(s)		1	2	1	1	2	1	1	2	
Support strips		–	–	–	–	–	2	2	2	
Weight (kg)		112.9	170.4	92.5	116.3	174.9	104.4	129.7	194.7	
<b>Walls</b>										
Side panels	2	8700.840	8700.840	8700.850	8700.850	8700.850	8700.060	8700.060	8700.060	
Divider panel	1	8609.840	8609.840	8609.850	8609.850	8609.850	8609.060	8609.060	8609.060	
Divider panel for module plates	1	–	–	8609.100	8609.100	8609.100	8609.130	8609.130	8609.130	
<b>Base/plinth</b>										
Components front and rear	Height 100 mm	1 set	8701.800	8701.200	8701.600	8701.800	8701.200	8701.600	8701.800	8701.200
	Height 200 mm	1 set	8702.800	8702.200	8702.600	8702.800	8702.200	8702.600	8702.800	8702.200
Trim panels, sides	Height 100 mm	1 set	8701.040	8701.040	8701.050	8701.050	8701.050	8701.060	8701.060	8701.060
	Height 200 mm	1 set	8702.040	8702.040	8702.050	8702.050	8702.050	8702.060	8702.060	8702.060
Base/plinth trim, modular	4	2907.000	2907.000	2908.000	2908.000	2908.000	2913.000	2913.000	2913.000	
<b>Accessories</b>										
Cable clamp rails	2	4192.000	4196.000	4191.000	4192.000	4196.000	4191.000	4192.000	4196.000	
Cable entry plates	2	8700.800	8700.120 <sup>1)</sup>	8700.600	8700.800	8700.120 <sup>1)</sup>	8700.600	8700.800	8700.120 <sup>1)</sup>	
Wiring plan pocket, sheet steel	1	4118.000	4116.000	4116.000	4118.000	4116.000	4116.000	4118.000	4116.000	

<sup>1)</sup> Packs of 4

### Rails for interior installation

#### for AE

For mounting in the enclosure, no machining required. Suitable for all-round mounting on the sides, base and roof areas.

Variable with 2 rows of system punchings, creates additional mounting space e.g. for:

- TS punched section with mounting flange
- Enclosure lights
- Door-operated switch
- Door stay
- Cable conduit holder

#### Material:

Sheet steel

#### Surface finish:

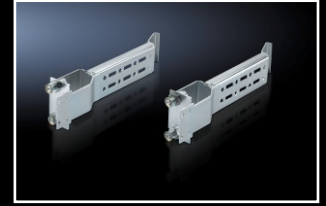
Zinc-plated

For enclosure depth mm	Packs of	Model No. SZ
210	4	<b>2373.210</b>
250	4	<b>2373.250</b>
300	4	<b>2373.300</b>
350	4	<b>2373.350</b>

#### Note:

Other mounting options:

- Mounting plates, locatable
- Mounting plates, screw-fastening, large
- Mounting plates, screw-fastening, small
- Mounting brackets



### Rain canopies

#### for AE, CM

Reliable protection for outdoor siting – with water run-off to the rear. Easily retro-fitted

#### Supply includes:

Assembly parts.

#### for AE, stainless steel version

#### Material:

Stainless steel 1.4301 (AISI 304)

#### Surface finish:

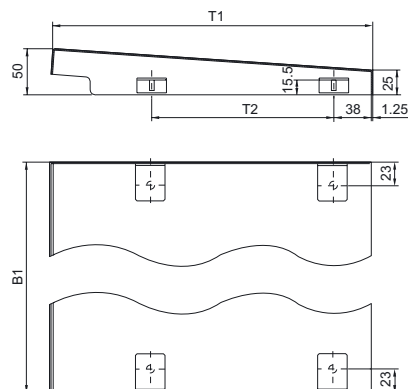
Brushed, grain 240

#### Note:

For outdoor siting, we generally recommend a rain canopy above the enclosure or the gap between the door or screw-fastened rear panel and the enclosure, in order to protect against water and UV radiation.

The tests of IP protection categories for water protection (2nd code number to IEC 60 529) cannot be compared with an enclosure sited outdoors or under similar conditions.

Upon request, rain canopies of sheet steel, stainless steel or aluminium can also be produced for other enclosures.



B1 = Enclosure width + 11 mm

T1 = Enclosure depth + 25 mm

T2 = Enclosure depth – 90 mm, from enclosure width 600 mm: Enclosure depth – 115 mm

For		Model No. SZ
Enclosure width mm	Enclosure depth mm	
200	155	<b>2470.000</b>
300	210	<b>2361.000</b>
380	155	<b>2471.000</b>
380	210	<b>2472.000</b>
500	210	<b>2362.000</b>
600	210	<b>2473.000</b>
760	300	<b>2474.000</b>
800	300	<b>2475.000</b>
1000	300	<b>2363.000</b>



# Stainless Steel

## Accessories



### Wall mounting bracket

For the attachment of KL, EB, BG and EL enclosures as well as DK wall-mounted distributors.

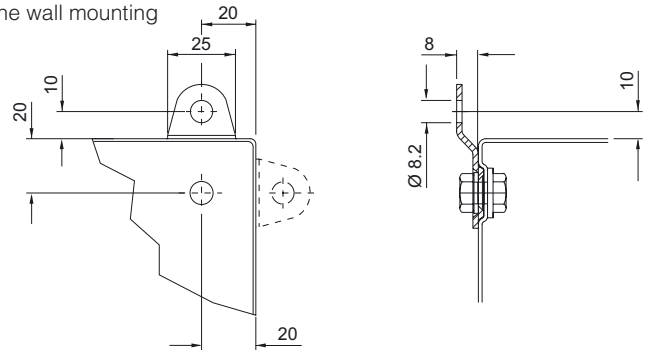
#### Supply includes:

Assembly parts for mounting on the enclosure.

#### Note:

For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets.

Material	Wall distance mm	Packs of	Model No. SZ
Stainless steel 1.4301 (AISI 304)	8	4	1594.000



### Wall mounting bracket

For the attachment of KL, EB, BG, AE, CM and EL enclosures, TP consoles as well as DK wall-mounted distributors and small fibre-optic distributors.

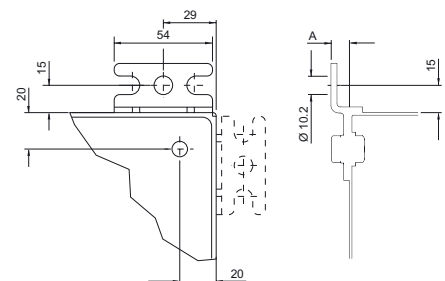
#### Supply includes:

Assembly parts for mounting on the enclosure.

#### Possible alternative:

Wall spacer bracket Hygienic Design, see page 05.

Material	Wall distance (A) mm	Packs of	Model No. SZ
Stainless steel 1.4301 (AISI 304)	10	4	2433.000
Stainless steel 1.4404 (AISI 316L)	10	4	2433.500



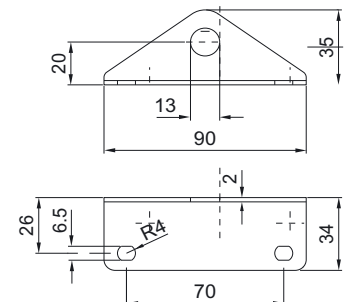
### Wall angle

For compact enclosures (additional holes required in the enclosure).

#### Supply includes:

Assembly parts for mounting on the enclosure.

Material	Colour	Packs of	Model No. SZ
Stainless steel 1.4301 (AISI 304)	-	4	2583.010



# Stainless Steel

## Accessories

### Pole clamp

for KL, EB, BG, AE, KS and CS wall-mounted enclosures

For reliable, convenient fastening to round or square poles.

**For pole diameter/size:**

- Ø from 40 to 190 mm
- □ from 50 to 150 mm

**Material:**

- Mounting angles, clamping section:  
Sheet steel
- Clamping strap:  
Stainless steel 1.4301 (AISI 304)

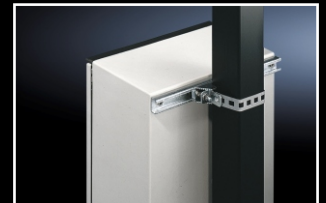
**Surface finish:**

Mounting angle, clamping section: Zinc-plated

Packs of	Model No. SZ
1 set	2584.000

**Supply includes:**

- 2 mounting angles, 600 mm long
- 4 clamping sections
- 2 clamping straps
- 4 clamping brackets
- 4 screws and captive nuts M8 for mounting on the enclosure.



### Cover hinge

for KL

The cover hinge is simply screwed to the enclosure protection channel and to the edge fold.

**Supply includes:**

Assembly parts.

Material	Packs of	Model No. KL
Stainless steel 1.4404 (AISI 316L)	2	1592.010

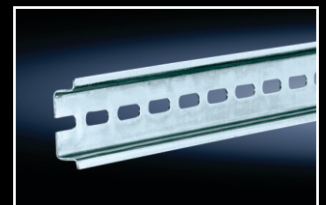


### Support rails TS 35/7.5 and TS 35/15

to EN 60 715 for KL, KL-HD, AE

Length sized to the enclosure width

For enclosure width mm	Support rails length mm	Design	Packs of	Model No. SZ
150	137	TS 35/7.5	10	2314.000
200	187		10	2315.000
300	287		10	2316.000
400	387		10	2317.000
500	487	TS 35/15	10	2318.000
600	587		10	2319.000



### Door stay

To secure the door in the open position.

For	Assembly	Packs of	Model No.
AE (except AE 1032.500 and AE 1035.500) and all AE stainless steel enclosures <sup>1)</sup>	Top	5	2519.000
AE IP 69K	Top	1	1101.800

<sup>1)</sup> With AE stainless steel, only in conjunction with perforated mounting strips.



# Stainless Steel

## Accessories



### Levelling feet

#### 85 – 115 mm high

For mounting on TS, ES and PC enclosures, for easier floor cleaning and to compensate for floor irregularities  $\pm 15$  mm. Height 100 mm.

Max. admissible static load:  
350 kg per levelling foot.

#### Material:

- Feet: Brass, nickel-plated
- Threaded bolts and mounting plates:  
Stainless steel 1.4301 (AISI 304)

#### Supply includes:

Assembly parts to the enclosure.

Packs of	Model No. SO
4	2859.000

#### Possible alternative:

Levelling feet Hygienic Design, see page 05.



### Base/plinth components front and rear

#### Stainless steel for TS,

#### Material:

Stainless steel 1.4301 (AISI 304)

#### Surface finish:

Brushed, grain 400

#### Supply includes:

Mounting accessories for mounting on the enclosure.

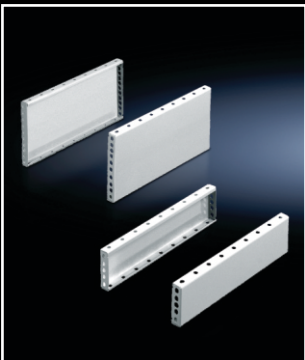
#### 100 mm high:

2 trim panels front/rear

#### 200 mm high:

2 corner pieces with removable trim panel  
– 1 trim panel front/rear

For enclosure width mm	Height mm	Model No. TS
600	100	8701.600
800	100	8701.800
1000	100	8701.000
1200	100	8701.200
600	200	8702.600
800	200	8702.800
1000	200	8702.000
1200	200	8702.200



### Base/plinth trim panels, side

#### Stainless steel for TS

For mounting between the base/plinth components. At 200 mm height, two 100 mm base/plinth trims may be used.

Base/plinth trim (100 mm high) may be installed rotated through 90° in order to stabilise bayed base/plinth components.

#### Material:

Stainless steel 1.4301 (AISI 304)

#### Surface finish:

Brushed, grain 400

#### Supply includes:

2 base/plinth trim panels, including parts for attaching to the base/plinth components.

For enclosure depth mm	Height mm	Model No. TS
400	100	8701.040
500	100	8701.050
600	100	8701.060
400	200	8702.040
500	200	8702.050
600	200	8702.060

#### Also required:

Base/plinth baying brackets TS 8601.100, when mounting base/plinth trim panels rotated through 90°.

#### Detailed drawings:

Available on the Internet.

# Stainless Steel

## Accessories

### Side panels, screw-fastened, stainless steel

#### for TS

- Automatic potential equalisation and higher EMC protection thanks to enclosure panel fasteners
- Easy positioning with the location aid
- Earthing bolt with contact surface

#### Material:

Stainless steel 1.4301 (AISI 304), 1.5 mm

#### Surface finish:

Brushed, grain 400

#### Protection category:

IP 55 to IEC 60 529

#### Supply includes:

Assembly parts.

For enclosures		Packs of	Model No. TS
Height mm	Depth mm		
1800	400	2	<b>8700.840</b>
1800	500	2	<b>8700.850</b>
2000	600	2	<b>8700.060</b>

#### Accessories:

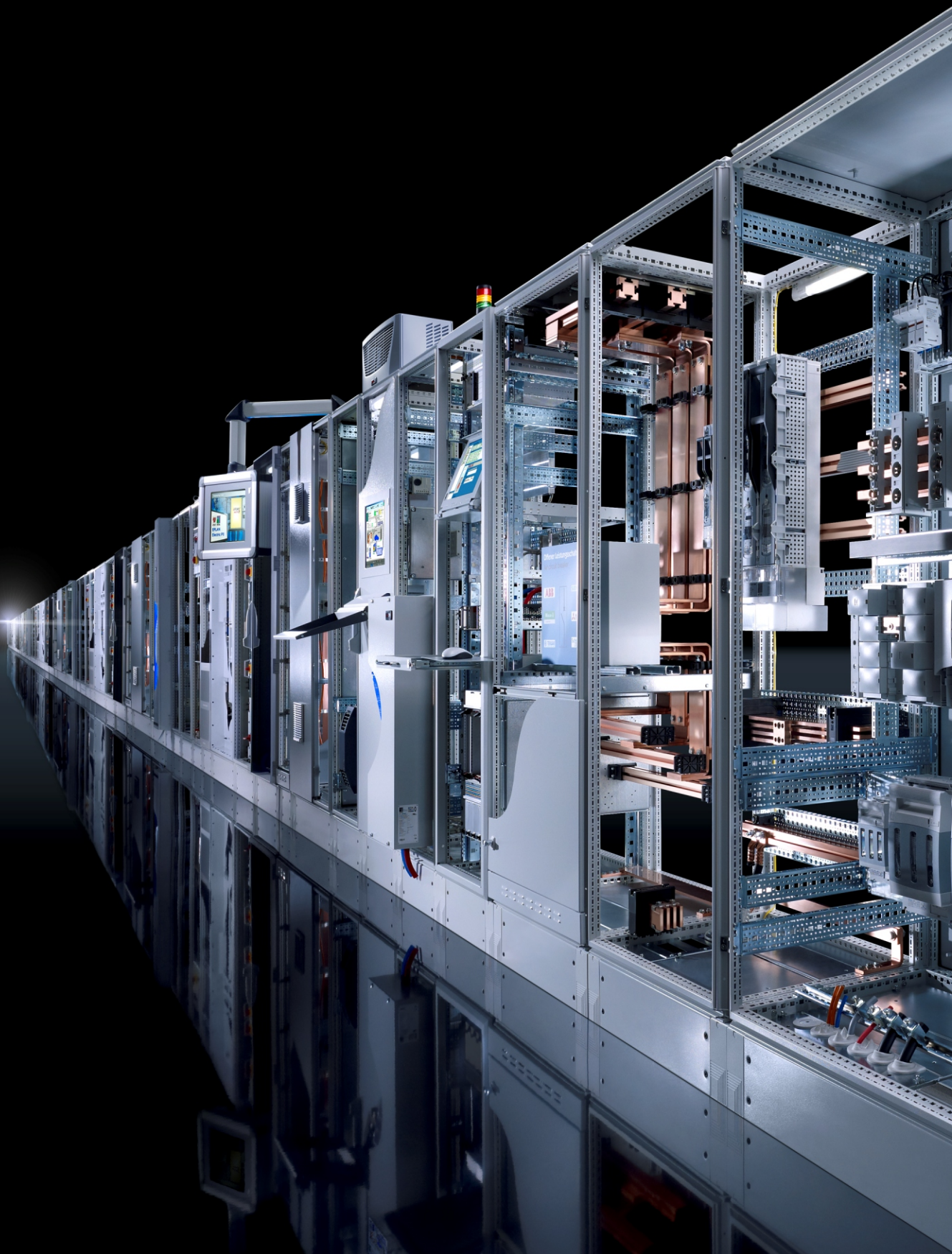
Enclosure panel fasteners, internal, 8800.071 for heavy installed equipment and high dynamic pressures.

#### Detailed drawings:

Available on the Internet.



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Doddaballapur - 561 203 • Bengaluru District  
Tel: +91(0)80 3372 0700 • Fax: +91(0)80 3372 0866  
Email: [info@rittal-india.com](mailto:info@rittal-india.com) • Website: [www.rittal-india.com](http://www.rittal-india.com)

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