



ROSE

A Phoenix Mecano Company



INDUSTRIAL ENCLOSURES 2022

www.rose-systemtechnik.com



The ROSE Systemtechnik GmbH company was founded in Porta Westfalica in 1969. With more than 350 employees there, it is one of the leading innovative suppliers worldwide of industrial enclosure system technology.

As part of the Phoenix Mecano AG / Switzerland group of companies, we develop and manufacture high-quality industrial enclosures and system solutions in the fields of railway and traffic engineering, mechanical and plant engineering, automation technology, potentially explosive environments, MSR technology and the foodstuffs and luxury food industry.

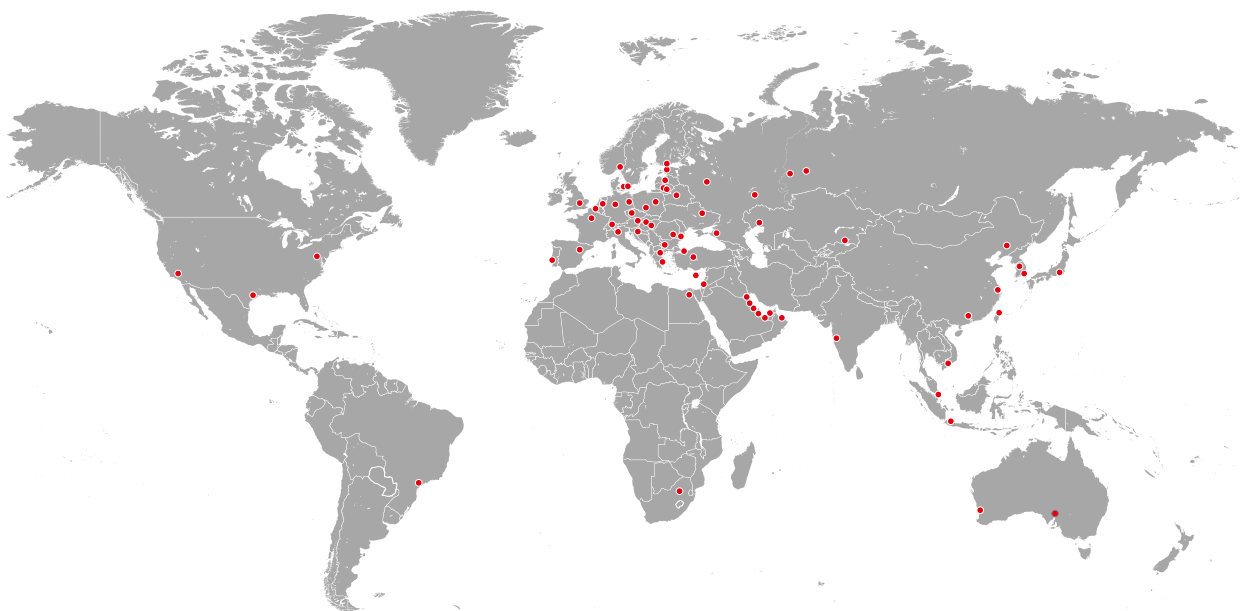
Our product range comprises:

- Aluminium, stainless steel and plastic industrial enclosures for individual installations with electrical connection technology and electronics modules.
- Operating and display enclosures based on aluminium profile systems and stainless steel materials for HMI applications with industry PCs, SPS control systems or visualisation units incl. suspension systems.
- Components for explosion protection with distribution enclosures and control stations for worldwide use in explosive areas, and the petrochemicals and chemical industry in onshore and offshore sectors.

In addition to our broad range of products and the high level of quality and permanent innovation, the basis for our commercial success lies in our excellent standard of service.

You take the decisions about the delivery condition – the unprocessed enclosure, partial assembly or a fully-assembled and tested customer-specific system solution.

Our worldwide sales network



ROSE enclosures made of aluminium, polyester, polycarbonate, ABS and stainless steel can be used in all areas of industry.

With their universal design, our housings are ideally suited for the installation of mechanical, electrical and electronic components.











Our focus is on offering and delivering complete system solutions to you. Mechanical processing of the housing according to your specifications is standard for us in our state-of-the-art production, even from batch size 1! In our surface technology, we refine the housing according to your requirements. We round off our offer with assembly of the housing and subsequent function test.

For applications that cannot be covered by our comprehensive standard program, or for special design requests, we offer you the opportunity to implement your own housing developments together with our design team.

Our high level of service sets us apart. Whether it's a standard product with individual processing or a customer-specific special solution, we support you right from the start.



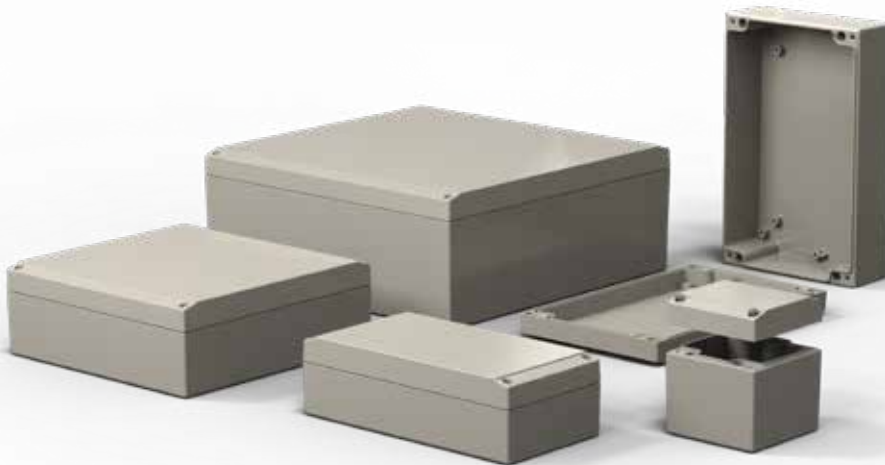
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EN 45545 Part 2



- Aluminium diecast enclosure for MCR and automation technology
- Prepared for acceptance for front membranes and keypads
- Rectangular dome sequence in lid and base

Technical Data

Material:

DIN EN 1706 EN AC-AISI 12 (Fe)

Painting:

powder coating

Colour:

RAL 7038, agate grey

special colour on request

Ingress Protection:

IP 66 according to EN 60529

higher protection on request

Impact Resistance:

IK09 according to DIN EN 60079-0

Temperature Range:

PU-(Polyurethane) seal (standard):
-40°C bis +90°C

CR-(Chloroprene) seal (optional):
-40°C bis +100°C

VMQ-(Silicone) seal (optional):
-60°C bis +130°C

Included in delivery

Aluminium diecast enclosure consisting of lid, seal incl. captive +/- stainless steel screws, base with 4 earthing screws



Aluform

Product range

Order No.	W x L x H (mm)	Mounting plate	DIN rail TS 15	DIN rail TS 35	External mounting brackets (pair)
04.08 08 08	80 x 80 x 81	10.01 10 60	10.06 10 03		
04.08 12 05	80 x 120 x 51	10.01 10 61			
04.08 12 08	80 x 120 x 81	10.01 10 61	10.06 10 50		
04.10 10 06	100 x 100 x 61	10.01 10 31	10.06 10 07	10.06 14 71	04.00 01 00
04.10 16 06	100 x 160 x 61	10.01 10 32	10.06 10 08	10.06 14 72	04.00 01 00
04.10 20 06	100 x 200 x 61	10.01 10 33	10.06 10 09	10.06 14 73	04.00 01 00
04.12 12 08	120 x 120 x 81	10.01 10 62	10.06 10 50	10.06 14 83	04.00 01 20
04.12 16 08	120 x 160 x 81	10.01 10 63	10.06 10 08	10.06 14 72	04.00 01 20
04.14 14 07	140 x 140 x 71	10.01 10 34	10.06 10 44	10.06 14 74	04.00 01 40
04.14 18 07	140 x 180 x 71	10.01 10 35	10.06 10 05	10.06 14 75	04.00 01 40
04.14 22 07	140 x 220 x 72	10.01 10 36	10.06 10 46	10.06 14 76	04.00 01 40
04.15 18 08	150 x 180 x 81	10.01 10 70	on request	on request	
04.16 16 08	160 x 160 x 81	10.01 10 64	10.06 10 08	10.06 14 72	04.00 01 60
04.16 24 08	160 x 240 x 81	10.01 10 65	10.06 10 51	10.06 14 84	04.00 01 60
04.20 20 07	200 x 200 x 72	10.01 10 37	10.06 10 09	10.06 14 73	04.00 02 00
04.20 28 07	200 x 280 x 72	10.01 10 59	10.06 10 48	10.06 14 81	04.00 02 00
04.28 28 11	280 x 280 x 111	10.01 10 71	10.06 10 48	10.06 14 81	

Accessories

Type	DIN rails for terminals		Mounting plate 1)	External mounting brackets pair	External aluminium hinges pair 3), 4)	EMC screening	SWB/SBG/ SBGL Corrosion protection	Allen lid screws 2)	Silicone lid seal up to +130°C	Sealable lid screws in steel	Lid safety strip
	TS 15	TS 35									
04.08 08 08	•		•	•	•	•	•	•	•	•	•
04.08 12 05			•	•	•	•	•	•	•	•	•
04.08 12 08	•		•	•	•	•	•	•	•	•	•
04.10 10 06	•	•	•	•	•	•	•	•	•	•	•
04.10 16 06	•	•	•	•	•	•	•	•	•	•	•
04.10 20 06	•	•	•	•	•	•	•	•	•	•	•
04.12 12 08	•	•	•	•	•	•	•	•	•	•	•
04.12 16 08	•	•	•	•	•	•	•	•	•	•	•
04.14 14 07	•	•	•	•	•	•	•	•	•	•	•
04.14 18 07	•	•	•	•	•	•	•	•	•	•	•
04.14 22 07	•	•	•	•	•	•	•	•	•	•	•
04.15 18 08	•	•	•	•	•	•	•	•	•	•	•
04.16 16 08	•	•	•	•	•	•	•	•	•	•	•
04.16 24 08	•	•	•	•	•	•	•	•	•	•	•
04.20 20 07	•	•	•	•	•	•	•	•	•	•	•
04.20 28 07	•	•	•	•	•	•	•	•	•	•	•
04.28 28 11	•	•	•	•	•	•	•	•	•	•	•

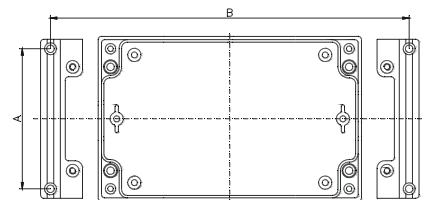
1) Laminated paper

2) Stainless steel

3) Diecast aluminium

4) Please quote the installation side A-D when ordering

Accessories



External mounting brackets (set = 2 pcs)
for mounting without opening the lid

Order No.	A	B	for type	Order No.	A	B	for type
04.00 00 80	65	132	04.08 12 08	04.00 01 40	125	192	04.14 18 07
04.00 01 00	85	112	04.10 10 06	04.00 01 40	125	232	04.14 22 07
04.00 01 00	85	172	04.10 16 06	04.00 01 60	145	172	04.16 16 08
04.00 01 00	85	212	04.10 20 06	04.00 01 60	145	252	04.16 24 08
04.00 01 20	105	132	04.12 12 08	04.00 02 00	185	212	04.20 20 07
04.00 01 20	105	172	04.12 16 08	04.00 02 00	185	292	04.20 28 07
04.00 01 40	125	152	04.14 14 07				



Accessories



Panel holder

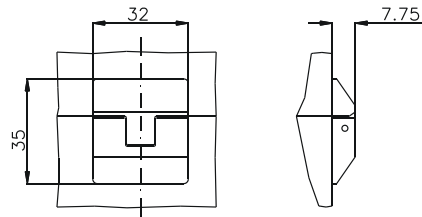
to convert the Aluform enclosure into a multi-functional control terminal
wall or table mounting
sheet steel material; powder coated, RAL 7030, stone grey

Order No.	Width	for type
04.30 00 09	98 mm	04.10 10 06
		04.10 16 06
		04.10 20 06
04.30 00 14	138 mm	04.14 14 07
		04.14 18 07
		04.14 22 07



External hinge (set = 2 pcs)

Order No. **04.00 00 10**



Lid safety strip

set = 2 pcs

Note: Machining of the lower part is required for installation
Only possible on side C or D

Order No. **04.00 00 20**

Aluminium Standard



EN 45545 Part 2



- Robust aluminium enclosure for mechanical engineering and automation technology
- Fixing options for DIN rails and mounting plates
- Usable in wide temperature area

Technical Data

Material:

DIN EN 1706 EN AC-AISI 12 (Fe)

Painting:

powder coating

Colour:

RAL 7001, silver grey

special colour on request

Ingress protection:

IP 66 according to EN 60529

higher protection on request

Impact resistance:

IK09 according to DIN EN 60068-2-75

Temperature range:

PU-(Polyurethane) seal (standard):
-40°C to +90°C

CR-(Chloroprene) seal (optional):
-40°C to +100°C

VMQ-(Silicone) seal (optional):
-60°C to +130°C

Included in delivery

Aluminium enclosure consisting of lid, seal
incl. captive +/- stainless steel screws, base
with 2 or 4 earthing screws



Product range

Order No.	W x L x H (mm)	DIN rails for Terminals		Earthrails, clamps	Mounting plate, thickness in mm	External mounting brackets set	External aluminium hinge pair	Internal hinge pair	Turn bolt fastener
		TS 15	TS 35						
Standard enclosure									
01.05 05 03	45 x 50 x 30								
01.06 06 03	64 x 58 x 34								
01.06 10 03	64 x 98 x 34	•							
01.06 15 03	64 x 150 x 34	•							
01.06 19 03	64 x 185 x 34	•							
01.08 08 06	80 x 75 x 57	•			1,5	•			
01.08 13 06	80 x 125 x 57	•			1,5	•			
01.08 18 06	80 x 175 x 57	•			1,5	•			
01.08 25 05	80 x 250 x 52	•				•			
01.10 10 08	100 x 100 x 81	•			1,5	•	•		
01.10 16 08	100 x 160 x 81	•			1,5	•	•		
01.10 20 08	100 x 200 x 81	•			1,5	•	•		
01.12 12 08	120 x 122 x 81		•	6	1,5	•	•		
01.12 12 09	120 x 122 x 91		•	6	1,5	•	•		
01.12 22 08	120 x 220 x 81		•	13	1,5	•	•		
01.12 22 09	120 x 220 x 91		•	13	1,5	•	•		
01.12 22 12	120 x 220 x 118		•	13	1,5	•	•		
01.12 36 08	120 x 360 x 81		•	23	1,5	•	•		
01.14 14 09	140 x 140 x 91		•	6	1,5	•	•		
01.14 20 09	140 x 200 x 91		•	11	1,5	•	•		•
01.16 16 09	160 x 160 x 91		•	8	1,5	•	•	•	•
01.16 26 09	160 x 260 x 91		•	16	1,5	•	•	•	•
01.16 36 09	160 x 360 x 91		•	23	1,5	•	•	•	•
01.16 56 09	160 x 560 x 91		•	36	2,0	•	•	•	•
01.18 18 10	180 x 180 x 101		•	8	1,5	•	•	•	•
01.18 28 10	180 x 280 x 101		•	17	1,5	•	•	•	•
01.23 10 11	230 x 100 x 111		•	13	1,5	•	•	•	•
01.23 20 11	232 x 202 x 111		•	10	1,5	•	•	•	•
01.23 20 18	232 x 202 x 181		•	10	1,5	•	•	•	•
01.23 28 11	230 x 280 x 111		•	16	1,5	•	•	•	•
01.23 33 11	230 x 330 x 111		•	21	1,5	•	•	•	•
01.23 33 18	230 x 330 x 181		•	21	1,5	•	•	•	•
01.23 40 11	230 x 400 x 111		•	25	2	•	•	•	•
01.23 40 18	230 x 400 x 181		•	25	2	•	•	•	•
01.23 40 23	230 x 400 x 225		•	25	2	•	•	•	•
01.23 60 11	230 x 600 x 111		•	40	2	•	•	•	•
01.31 40 11	313 x 404 x 111		•	25	2	•	•	•	•
01.31 40 14	312 x 403 x 141		•	25	2	•	•	•	•
01.31 40 18	313 x 404 x 181		•	25	2	•	•	•	•
01.31 40 23	313 x 404 x 227		•	25	2	•	•	•	•
01.31 60 11	310 x 600 x 111		•	40	2	•	•	•	•
01.31 60 18	310 x 600 x 181		•	40	2	•	•	•	•
01.60 60 20	600 x 600 x 202		•		2,5				
Field enclosure with integrated external fastening									
01.06 12 00	64 x 115 x 34								
01.06 19 00	64 x 185 x 34								

1) galvanized sheet steel 2) stainless steel 3) diecast aluminium 4) Please quote installation side A-D when ordering 5) on request

Accessories

EMC screening (without type 01.60 60 20)
 SWB/SBG/SBGL corrosion protection (RAL 5009)
 Allen lid screws (without type 01.60 60 20)
 Silicone lid seal up to +130°C
 Sealable lid screws in steel (without type 01.60 60 20)



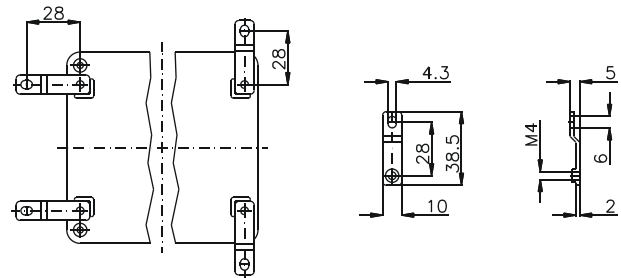
Accessories



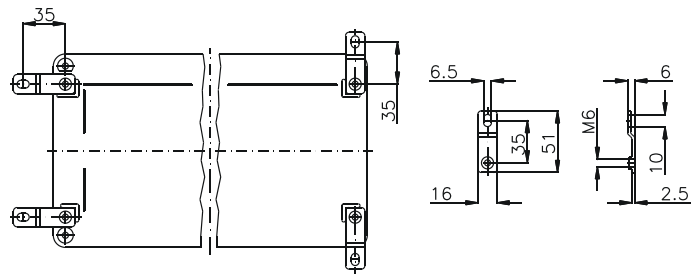
External brackets
set = 4 pcs

Order No.	for enclosure
10.03 11 01	01.08 08 06 - 01.10 20 08
10.03 11 02	01.12 12 08 - 01.31 60 18

Type 10.03 11 01

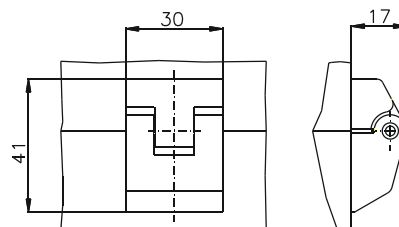


Type 10.03 11 02



External hinge
opening angle 150°
set = 2 pcs

Order No. **10.02 70 01**



Internal hinge
opening angle 95°
set = 2 pcs

Order No. **10.02 20 01**



- Robust plastic enclosure for automation technology and mechanical engineering
- Fixing options for DIN rails and mounting plates
- Universal configuration

Technical data

Material:

glass fibre reinforced duroplastic polyester

Colour:

RAL 7000, squirrel grey

special colour on request

Ingress protection:

IP 66 according to EN 60529

Impact resistance:

from IK07 - IK09 acc. to DIN EN 60068-2-75

Surface resistance:

$>10^{12}$ Ohm, IEC 60093

Flammability:

V0 / self-extinguishing, UL 94

Insulation:

fully insulated to VDE 0100

Disruptive strength:

18 KV/mm, IEC 60243-1

Toxicity:

halogen-free

Temperature range:

CR-(Chloroprene) seal (standard):
-40°C to +100°C

PU-(Polyurethane) seal (optional):
-40°C to +90°C

VMQ-(Silicone) seal (optional):
-60°C to +130°C

Included in delivery

Plastic enclosure in glass fibre reinforced polyester, consisting of lid, seal, incl. captive +/- stainless steel screws, base with 2 or 4 earthing screws



Polyester Standard

Product range

Order No.	W x L x H (mm)	Order No.	W x L x H (mm)
02.06 06 03	55 x 55 x 37	02.12 22 09	120 x 220 x 91
02.06 06 06	55 x 55 x 59	02.16 16 09	160 x 160 x 91
02.08 08 06	75 x 80 x 56	02.16 26 09	160 x 260 x 91
02.08 08 08	75 x 80 x 75	02.16 36 09	160 x 360 x 91
02.08 11 06	75 x 110 x 56	02.16 56 09	160 x 560 x 91
02.08 11 08	75 x 110 x 75	02.25 26 12	250 x 255 x 121
02.08 16 06	75 x 160 x 56	02.25 26 16	250 x 255 x 161
02.08 16 08	75 x 160 x 75	02.25 40 12	250 x 400 x 121
02.08 19 06	75 x 190 x 56	02.25 40 16	250 x 400 x 161
02.08 19 08	75 x 190 x 75	02.25 60 12	250 x 600 x 121
02.08 23 06	75 x 230 x 56	02.36 36 09	360 x 360 x 91
02.08 23 08	75 x 230 x 75	02.41 40 12	405 x 400 x 121
02.10 32 08	100 x 320 x 81	02.41 40 20	406 x 401 x 201
02.12 12 09	120 x 122 x 91		

Accessories

Order No.	DIN rail* for terminals		Mounting plate thickness in mm	External mounting brackets set	Aluminium external hinge approx. 125° pair	Allen lid screws	Silicone lid seal up to +130°C	Sealable lid screws	EMC version aluminized
	TS 15	TS 35							
02.06 06 03				²)	³)	²)		²)	
02.06 06 06									
02.08 08 06	•		2 ⁴)	•		•	•	•	•
02.08 08 08	•		2 ⁴)	•		•	•	•	•
02.08 11 06	•		2 ⁴)	•		•	•	•	•
02.08 11 08	•		2 ⁴)	•		•	•	•	•
02.08 16 06	•		2 ⁴)	•		•	•	•	•
02.08 16 08	•		2 ⁴)	•		•	•	•	•
02.08 19 06	•		2 ⁴)	•		•	•	•	•
02.08 19 08	•		2 ⁴)	•		•	•	•	•
02.08 23 06	•			•		•	•	•	•
02.08 23 08	•			•		•	•	•	•
02.10 32 08	•		1,5 ¹)	•	•	•	•	•	•
02.12 12 09	•		1,5 ¹)	•	•	•	•	•	•
02.12 22 09	•		1,5 ¹)	•	•	•	•	•	•
02.16 16 09	•		1,5 ¹)	•	•	•	•	•	•
02.16 26 09	•		1,5 ¹)	•	•	•	•	•	•
02.16 36 09	•		1,5 ¹)	•	•	•	•	•	•
02.16 56 09	•		2 ¹)	•	•	•	•	•	•
02.25 26 12	•		2 ¹)	•	•	•	•	•	•
02.25 26 16	•		2 ¹)	•	•	•	•	•	•
02.25 40 12	•		2 ¹)	•	•	•	•	•	•
02.25 40 16	•		2 ¹)	•	•	•	•	•	•
02.25 60 12	•		2 ¹)	•	•	•	•	•	•
02.36 36 09	•		2 ¹)	•	•	•	•	•	•
02.41 40 12	•		2 ¹)	•	•	•	•	•	•
02.41 40 20	•		2 ¹)	•	•	•	•	•	•

¹) Galvanized sheet steel

²) Stainless steel

³) Please quote installation side A-D when ordering

⁴) Laminated paper

* TS 32 on request

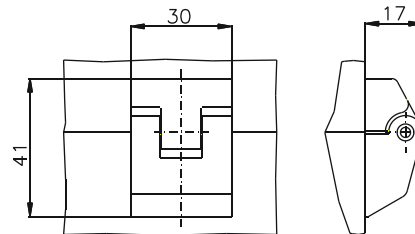


Accessories



External hinge
 Material cast aluminium
 Opening angle 150°
 (set = 2 pcs)

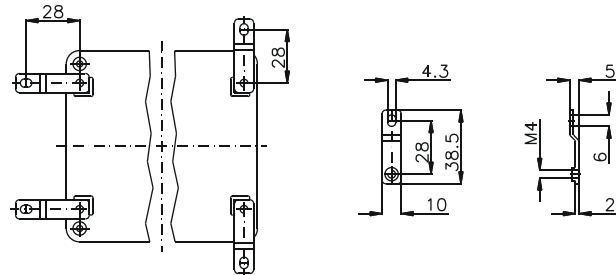
Order No. **10.02 70 01**



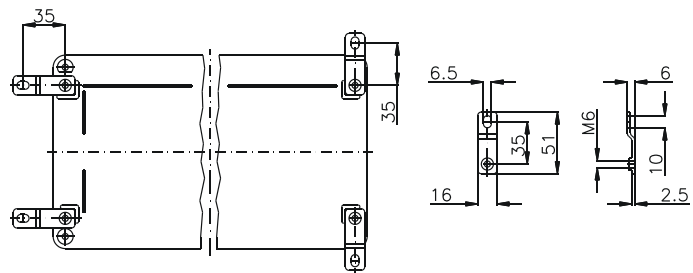
External mounting brackets (Set = 4 pcs)

Order No.	for enclosure
10.03 11 01	02.08 08 06 - 02.08 23 08
10.03 11 02	02.10 32 08 - 02.41 40 20

Type 10.03 11 01



Type 10.03 11 02



Polyester Railway Enclosures



EN 45545 Part 2



- Robust plastic enclosure for railway industry
- Universal construction for multifunctional use
- Certificated acc. to EN 45545 Part 2

Technical data

Material:

glass fibre reinforced duroplastic polyester

Colour:

similar to RAL 7047

Ingress protection:

IP 66

IK Code:

IK07 acc. to IEC 60068-2-75

Lateral flame spread:

HL 3 acc. to EN 45545

Rate of heat dispersion:

HL 3 acc. to EN 45545

Smoke gas concentration:

HL 3 acc. to EN 45545

Smoke gas density:

HL 2 acc. to EN 45545

Temperature range:

-40°C to +130°C with silicone seal

Included in delivery

Plastic enclosure in glass fibre reinforced polyester consisting of lid, seal, incl. captive +/-stainless steel screws, base with 2 or 4 earthing screws



Polyester Railway Enclosures

Product range

Order No.	Type	Dimensions (mm) H x W x D
62.08 08 06	POB 62020	75 x 80 x 56
62.08 08 08	POB 62025	75 x 80 x 75
62.08 11 06	POB 62030	75 x 110 x 56
62.08 11 08	POB 62035	75 x 110 x 75
62.08 16 08	POB 62045	75 x 160 x 75
62.08 19 08	POB 62055	75 x 190 x 75
62.08 23 08	POB 62065	75 x 230 x 75
62.12 12 09	POB 62075	120 x 122 x 91
62.12 22 09	POB 62080	120 x 220 x 91
62.16 16 09	POB 62085	160 x 160 x 91
62.16 26 09	POB 62090	160 x 260 x 91
62.25 26 12	POB 62105	250 x 255 x 121
62.25 40 12	POB 62115	250 x 400 x 121
62.25 40 16	POB 62120	250 x 400 x 161

Accessories

Order No.	DIN rail for terminals TS 15 / TS 35	Mounting plate	External hinge	External mounting brackets	Sealable lid screws
62.08 11 06	•	•	•	•	•
62.08 16 08	•	•	•	•	•
62.08 19 08	•	•	•	•	•
62.12 12 09	•	•	•	•	•
62.12 22 09	•	•	•	•	•
62.16 16 09	•	•	•	•	•
62.16 26 09	•	•	•	•	•
62.25 26 12	•	•	•	•	•
62.25 40 12	•	•	•	•	•
62.25 40 16	•	•	•	•	•



The enclosure standard will be delivered with silicone seal.



Mounting brackets (set = 4 pcs)

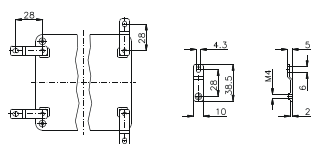
Order No.	for enclosure
10.03 11 01	62.08 08 06 - 62.08 23 08
10.03 11 02	62.12 12 09 - 62.25 40 16



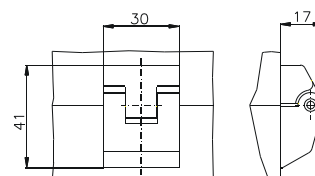
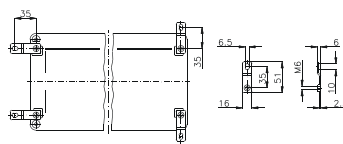
External hinge
Material aluminium
swivel range 150°
(set = 2 pcs)

Order No. **10.02 70 01**

Type 10.03 11 01



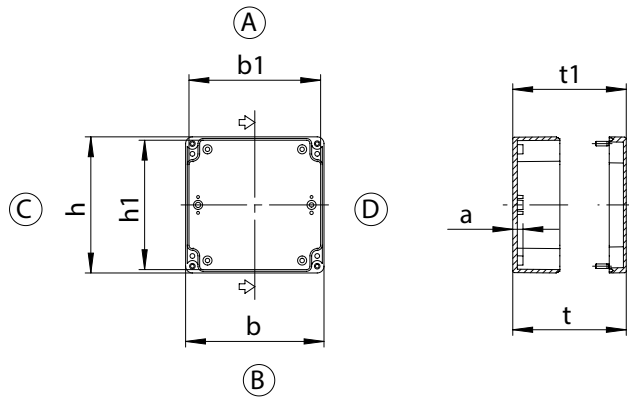
Type 10.03 11 02



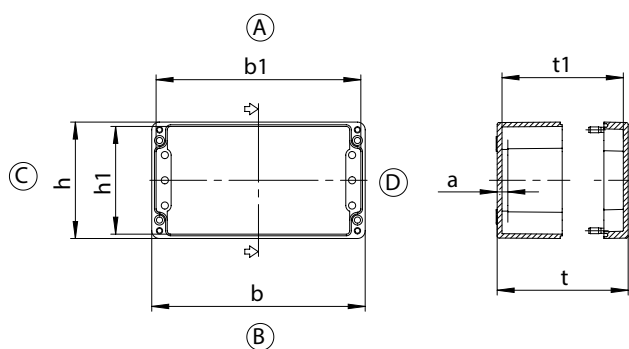
Polyester Railway Enclosures

Dimensions

Order No.	h	w	d	h1	w1	d1	a
62.12 12 09	122	120	91	113	111	80	5
62.16 16 09	160	160	91	148	148	79	6



Order No.	h	w	d	h1	w1	d1	a
62.08 11 06	110	75	56	101	66	46	5
62.08 16 08	160	75	75	151	66	65	5
62.08 19 08	190	75	75	181	66	65	5
62.16 26 09	260	160	91	248	148	79	6
62.12 22 09	220	120	91	211	111	80	5
62.25 26 12	255	250	121	243	238	109	6
62.25 40 12	400	250	121	388	238	109	6
62.25 40 16	400	250	161	388	238	149	6





Technical data

Material:

glass fibre reinforced duroplastic polyester
transparent lid: polycarbonate

Colour:

RAL 7032, pebble grey

Ingress protection:

IP 65 acc. to EN 60529

Impact resistance:

IK08 acc. to DIN EN60068-2-75

Flammability:

enclosure: V0 / self-extinguishing, UL 94
transparent lid: V2 / UL 94

Insulation:

fully insulated acc. to VDE 0100

Disruptive strength:

enclosure: 24KV/mm / IEC 60243-1
transparent lid: >30 KV/mm / IEC 60243-1

Toxicity:

halogen-free

Surface resistance:

enclosure: >10¹¹ Ohm, IEC 60093
transparent lid: >10¹⁵ Ohm, IEC 60093

Temperature range:

enclosure/lid
CR-(Chloroprene) seal (standard):
-40°C to +100°C
PU-(Polyurethane) seal (optional):
-40°C to +90°C
VMQ-(Silikon) seal (optional):
-60°C to +130°C

flange

PU-(Polyurethane) seal: -40°C to +90°C

- Plastic enclosure with flange openings for automation technology
- Combination options with other polyester flange enclosures
- Snap lock technology

Included in delivery

Plastic enclosure in glass fibre reinforced polyester, consisting of lid, seal, plastic quick-release fastener screws, base with flange openings.
(Please order flange plate separately)
Threaded insert set (4 pcs)



Polyester Flange

Product range

Order No.	W x L x H (mm)	Flange openings	Mounting plate	Front plate on stud bolt	DIN rail* TS 35	Earth rail	Silicone lid seal 130°
14.01 00 00	170 x 270 x 136	2	14.00 00 11	14.00 00 27	10.06 17 21	10.06 21 01	10.05 15 01
14.02 00 00	270 x 270 x 136	4	14.00 00 12	14.00 00 28	10.06 17 22	10.06 21 01	10.05 15 02
14.03 00 00	270 x 541 x 136	6	14.00 00 13	14.00 00 29	10.06 17 23	10.06 21 02	10.05 15 03
Version with polycarbonate transparent lid							
14.01 00 01	170 x 270 x 150	2	14.00 00 11	14.00 00 27	10.06 17 21	10.06 21 01	10.05 15 01
14.02 00 01	270 x 270 x 150	4	14.00 00 12	14.00 00 28	10.06 17 22	10.06 21 01	10.05 15 02
14.03 00 01	270 x 540 x 150	6	14.00 00 13	14.00 00 29	10.06 17 23	10.06 21 02	10.05 15 03

Flange and accessories (for all types)

Blind flange (for individual machining)	14.00 00 20	Lid hinges (2 pcs.) retrofitting for all types	14.00 00 26
Connection flange	14.00 00 25		



Accessories



Blind flange
weight: 225 g

Order No.	Version
14.00 00 20	without holes



Connection flange
to connect two polyester flange enclosures

Order No. **14.00 00 25**



Lid hinges
set = 2 pcs, retrofittable to all polyester flange enclosures

Order No. **14.00 00 26**

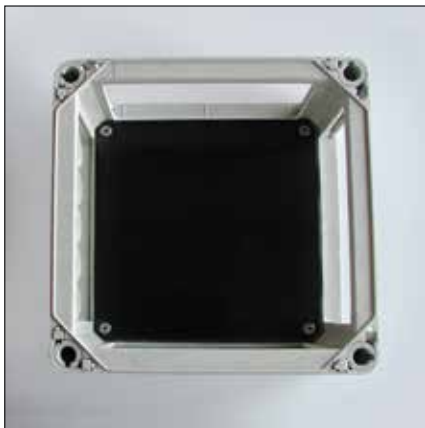
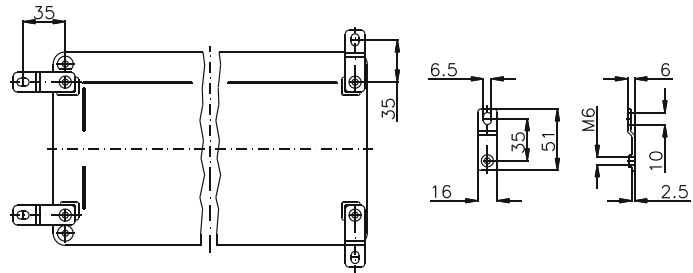
Polyester Flange

Accessories



External mounting brackets
set = 4 pcs

Order No. **10.03 11 02**



Mounting plates
for fitting electro-mechanical components

Order No.	Type
14.00 00 11	14.01
14.00 00 12	14.02
14.00 00 13	14.03



Front plate
with stud bolts and fastening screws
(for dimensions, refer to mounting plate)

Order No.	Type
14.00 00 27	14.01
14.00 00 28	14.02
14.00 00 29	14.03





- Light plastic enclosure for industrial applications
- Polycarbonate enclosure with standard or transparent lid
- ABS enclosure with standard lid
- Optional: EMC version coated

Technical data

Material:

Polycarbonate, ABS

Colour:

RAL 7035, light grey

special colour on request

Ingress protection:

IP66 acc. to EN 60529 (03.08 23 09: IP 65)

Surface resistance:

PC: $>10^{15}$ Ohm, IEC 60093

ABS: 4×10^{14} Ohm, IEC 60093

Disruptive strength:

PC: >30 KV/mm, IEC 60243-1

ABS: 24 KV/mm, IEC 60243-1

Impact resistance:

PC: IK07 acc. to IEC 62262

Insulation:

fully insulated acc. to VDE 0100

Flammability:

PC: V2 / UL 94

ABS: HB / UL 94

Toxicity:

halogen-free

Temperature range:

PC: -40°C to $+100^{\circ}\text{C}$; CR-(Chloroprene) seal

ABS: -40°C to $+60^{\circ}\text{C}$; CR-(Chloroprene) seal

Included in delivery

Plastic enclosure consisting of lid, seal, incl. captive +/- stainless steel screws, base with 2 self-tapping fastening screws for internal mounting



Polycarbonate / ABS

Product range

Order No. Polycarbonate enclosure	Order No. Polycarbonate enclosure with transparent lid	Order No. ABS enclosure	Dimensions (mm) W x L x H	Din Rail		External mounting brackets	Mounting plate Pertinax thickness in mm	Silicone lid seal up to +130°	Table feet rubber	PC external hinge approx. 150° ¹⁾	Sealable lid screws ²⁾	EMC version aluminized
				TS 15	TS 35							
03.05 05 04	33.05 05 04	09.05 05 04	50 x 52 x 35				1,5					•
03.05 07 04	33.05 07 04	09.05 07 04	50 x 65 x 35	•			1,5	•				•
03.08 08 06	33.08 08 06	09.08 08 06	80 x 82 x 55	•	•		1,5	•	•			•
03.08 08 09	33.08 08 09	09.08 08 09	80 x 82 x 85	•	•		1,5	•	•			•
03.08 12 06	33.08 12 06	09.08 12 06	80 x 120 x 55	•	•		1,5	•	•	•		•
03.08 12 09	33.08 12 09	09.08 12 09	80 x 120 x 85	•	•		1,5	•	•	•		•
03.08 16 06	33.08 16 06	09.08 16 06	80 x 160 x 55	•	•		1,5	•	•	•		•
03.08 16 09	33.08 16 09	09.08 16 09	80 x 160 x 85	•	•		1,5	•	•	•		•
03.08 23 09		09.08 23 09	80 x 230 x 85	•	•		1,5	•	•	•		•
03.12 12 06	33.12 12 06	09.12 12 06	120 x 122 x 55		•	•	2	•	•	•		•
03.12 12 09	33.12 12 09	09.12 12 09	120 x 122 x 85		•	•	2	•	•	•		•
03.12 12 11	33.12 12 11	09.12 12 11	120 x 122 x 105		•	•	2	•	•	•		•
03.12 16 09	33.12 16 09	09.12 16 09	120 x 160 x 90		•	•	2	•	•	•		•
03.12 16 14	33.12 16 14	09.12 16 14	120 x 160 x 140		•	•	2	•	•	•		•
03.12 20 08	33.12 20 08	09.12 20 08	120 x 200 x 75		•	•	2	•	•	•		•
03.12 20 09	33.12 20 09	09.12 20 09	120 x 200 x 90		•	•	2	•	•	•		•
03.12 24 10	33.12 24 10	09.12 24 10	120 x 240 x 100		•	•	2	•	•	•		•
03.15 20 08	33.15 20 08	09.15 20 08	150 x 200 x 75		•	•	2	•	•	•		•
03.16 24 09	33.16 24 09	09.16 24 09	160 x 240 x 90		•	•	2,5 ³⁾	•	•	•		•
03.16 24 12	33.16 24 12	09.16 24 12	160 x 240 x 120		•	•	2,5	•	•	•		•
03.16 36 10	-	09.16 36 10	160 x 360 x 100		•	•	2,5	•	•	•		•
03.20 36 15	33.20 36 15	09.20 36 15	200 x 360 x 149		•	•	2,5	•	•	•		•
03.23 30 09	33.23 30 09	09.23 30 09	230 x 300 x 85		•	•	2	•	•	•		•
03.23 30 11	33.23 30 11	09.23 30 11	230 x 300 x 110		•	•	2	•	•	•		•
-	-	09.40 36 15	400 x 360 x 150		•	•	2,5 ³⁾	•	•	•		•

¹⁾ Please quote mounting side A-D when ordering. ²⁾ Stainless steel ³⁾ Galvanized sheet steel Transparent lid for ABS enclosure not available.

Accessories

Small table feet (for sizes up to xx.15 20 08)	10.03 40 01	10.03 40 01
Small table feet (for sizes up to xx.16 24 19)	10.03 40 02	10.03 40 02
Threaded inserts M4 (10 pcs)	10.03 70 04	10.03 70 04
Threaded inserts M3 (10 pcs)	10.03 70 03	10.03 70 03
Set of external hinges (2 pcs)	10.02 12 01	10.02 12 01



Mounting plate

for fitting electro-mechanical components, material: Pertinax

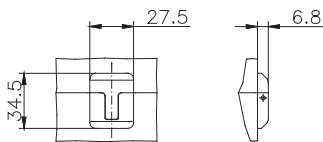
Order No.	for enclosure type	Order No.	for enclosure type
10.01 20 01	03/09/33.05 05 04	10.01 20 07	03/09/33.12 16 14
10.01 20 02	03/09/33.05 07 04	10.01 20 08	03/09/33.12 20 08
10.01 20 03	03/09/33.08 08 06	10.01 20 08	03/09/33.12 20 09
10.01 20 03	03/09/33.08 08 09	10.01 20 09	03/09/33.12 24 10
10.01 20 04	03/09/33.08 12 06	10.01 20 10	03/09/33.15 20 08
10.01 20 04	03/09/33.08 12 09	10.01 20 11	03/09/33.16 24 09
10.01 20 05	03/09/33.08 16 06	10.01 20 11	03/09/33.16 24 12
10.01 20 05	03/09/33.08 16 09	10.01 20 12	03/09/33.16 36 10
10.01 20 16	03/09/33.08 23 09	10.01 20 13	03/09/33.20 36 15
10.01 20 06	03/09/33.12 12 06	10.01 20 14	03/09/33.23 30 09
10.01 20 06	03/09/33.12 12 09	10.01 20 14	03/09/33.23 30 11
10.01 20 06	03/09/33.12 12 11	10.01 20 15	03/09/33.40 36 15
10.01 20 07	03/09/33.12 16 09		



Accessories



External hinge (set = 2 pcs)
swivel range 150°
Order No. **10.02 12 01**



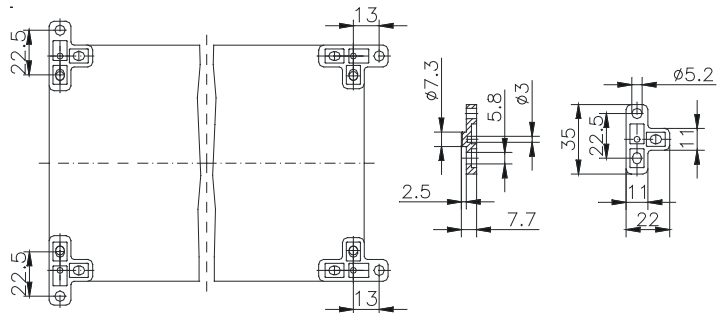
Threaded inserts

Order No.	
10.03 70 03	Set with 10 pcs. M3
10.03 70 04	Set with 10 pcs. M4 only for enclosure ...16 36 10; ...20 36 15; ...40 36 15



External mounting brackets (set = 4 pcs)

Order No. **10.03 12 01**



Polycarbonate Flange



- Light plastic enclosure for industrial applications with flange pre-embossing
- Combination options with other polycarbonate flange enclosures
- Snap lock technology and flange quick-fixing-system

Included in delivery

Complete closed enclosure body with flange break-out points, lid with plastic quick release fastener; 4 threaded inserts for internal fixing.

Technical data

Material:

Polycarbonate

Colour:

Enclosure: RAL 7032, pebble grey

Ingress protection:

IP54 acc. to EN 60529

Impact resistance:

IK07 acc. to DIN EN60068-2-75

Flammability:

enclosure: V0 / self-extinguishing, UL 94

Insulation:

fully insulated to VDE 0100

Disruptive strength:

enclosure: >18 KV/mm, IEC 60243-1

Seal:

CR-round seal

Toxicity:

low-halogen

Surface resistance:

>10¹⁵ Ohm, IEC 60093

Temperature range:

-40°C to +100°C (incl. seals)



Product range

Order No.	Dimensions W x L x H	Flange openings	DIN rail TS 35	Earth rail	Mounting plate
17.01 10 00	170 x 134 x 130	2	10.06 17 24	10.06 21 00	17.01 60 00
17.02 10 00	170 x 170 x 130	4	10.06 17 24	10.06 21 00	17.02 60 00
17.03 10 00	170 x 269 x 130	4	10.06 17 22	10.06 21 01	17.03 60 00
17.04 10 00	269 x 269 x 130	4	10.06 17 22	10.06 21 01	17.04 60 00
17.05 10 00	269 x 540 x 130	6	10.06 17 23	10.06 21 02	17.05 60 00
17.06 10 00	269 x 441 x 130	4	10.06 17 25	10.06 20 11	17.06 60 00

Accessories (for all types)

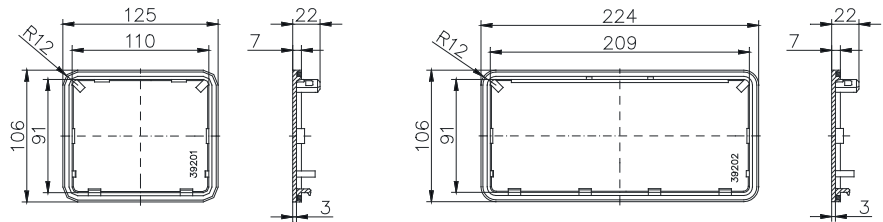
Blind flange I	17.00 31 00
Blind flange II	17.00 32 00
Connection flange I	17.00 36 00
Connection flange II	17.00 37 00
Mounting bracket (set 4 of pcs), 2 sets required for type 17.05	17.00 42 00
Additional threaded inserts (set of 10 pcs)	10.03 50 03
External mounting brackets (set of 4 pcs)	10.03 11 04
Replacement fastening wedges (set of 10 pcs)	17.00 41 00

Accessories



Blind flange

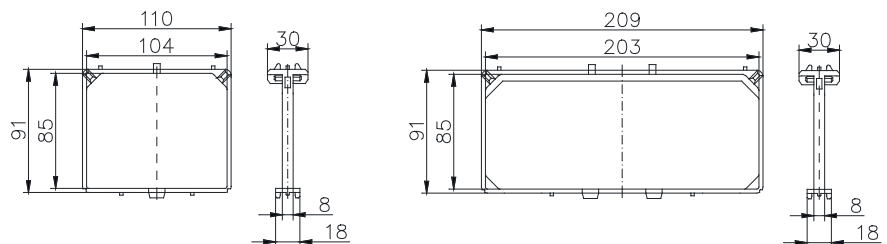
Order No.	Version
17.00 31 00	Blind flange I (125 x 106 mm)
17.00 32 00	Blind flange II (224 x 106 mm)



Connection flange

to connect two polycarbonate flange enclosures

Order No.	Version
17.00 36 00	Connection flange I
17.00 37 00	Connection flange II



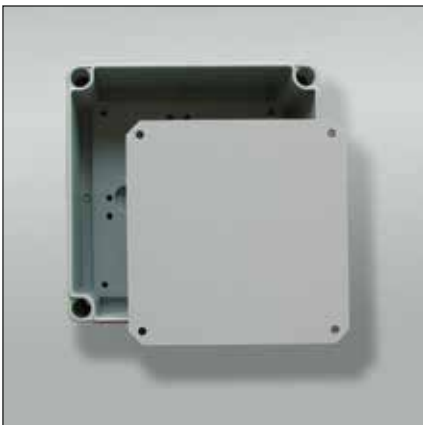
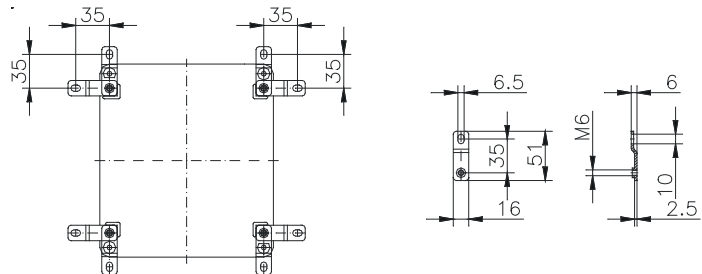
Polycarbonate Flange

Accessories



External mounting brackets
set = 4 pcs

Order No. **10.03 11 04**



Mounting plates
for fitting electro-mechanical components



Mounting bracket
set = 4 pcs

Order No. **17.00 42 00**





- Thermoplastic enclosure for industrial applications
- ECO version: base with smooth side walls, lid version standard or transparent
- PCI version: base with knock-outs for cable glands

Technical data

Material:

PS thermoplastic

Colour:

RAL 7035, light grey
special colour on request

Ingress protection:

IP 66 acc. to EN 60529

Impact resistance:

IK07 acc. to EN 60068-2-75

Flammability:

UL 94 HB

Insulation:

protection class II to VDE 0140

Toxicity:

low halogen

Weather resistance:

generally good, do not expose to direct sun light

Chemical resistance:

generally good, but not resistant to benzene, diesel, oils and fats as well as strong acids

Temperature range:

-25°C to +40°C

Included in delivery

Enclosure consisting of lid, seal incl. captive +/- lid screws, set of screws for fastening, incl. sealing caps.



ECO / PCI compact enclosures

Product range

Type	Order No.	Dimensions	Type	Order No.	Mounting plate	DIN rail TS 15					DIN rail TS 35					
						49,5 mm	80 mm	92 mm	111 mm	154 mm	81 mm	106 mm	144 mm	216 mm	336 mm	
ECO 01-6	60.07 07 11	65 x 65 x 57	PCI 01-6M	60.07 07 15	•	•										
ECO 01-8	60.07 07 21	65 x 65 x 81			•	•										
ECO 02-6	60.07 09 11	65 x 94 x 57	PCI 02-6M	60.07 09 15	•	•	•									
ECO 02-8	60.07 09 21	65 x 94 x 81			•	•	•									
ECO 03-6	60.09 09 11	94 x 94 x 57	PCI 03-6M	60.09 09 15	•	•										
ECO 03-8	60.09 09 21	94 x 94 x 81			•	•										
ECO 03-6 t	60.09 09 12	94 x 94 x 57			•	•										
ECO 03-8 t	60.09 09 22	94 x 94 x 81			•	•										
ECO 04-6	60.09 13 11	94 x 130 x 57	PCI 04-6M	60.09 13 15	•	•	•	•		•	•					
ECO 04-8	60.09 13 21	94 x 130 x 81			•	•	•	•		•	•					
ECO 04-6 t	60.09 13 12	94 x 130 x 57			•	•	•	•		•	•					
ECO 04-8 t	60.09 13 22	94 x 130 x 81			•	•	•	•		•	•					
ECO 05-7	60.11 11 11	110 x 110 x 66			•	•	•			•						
ECO 05-9	60.11 11 21	110 x 110 x 90	PCI 05-9M	60.11 11 15	•	•	•			•						
ECO 05-7 t	60.11 11 12	110 x 110 x 66			•	•	•			•						
ECO 05-9 t	60.11 11 22	110 x 110 x 90			•	•	•			•						
ECO 06-7	60.13 13 11	130 x 130 x 75	PCI 06-7M	60.13 13 15	•	•	•	•		•	•					
ECO 06-10	60.13 13 21	130 x 130 x 99			•	•	•	•		•	•					
ECO 06-7 t	60.13 13 12	130 x 130 x 75			•	•	•	•		•	•					
ECO 06-10 t	60.13 13 22	130 x 130 x 99			•	•	•	•		•	•					
ECO 07-6	60.09 18 11	94 x 180 x 57	PCI 07-6M	60.09 18 15	•	•				•	•			•		
ECO 07-8	60.09 18 21	94 x 180 x 81			•	•				•	•			•		
ECO 07-6 t	60.09 18 12	94 x 180 x 57			•	•				•	•			•		
ECO 07-8 t	60.09 18 22	94 x 180 x 81			•	•				•	•			•		
ECO 08-9	60.11 18 11	110 x 180 x 90	PCI 08-9M	60.11 18 15	•	•	•			•	•			•		
ECO 08-11	60.11 18 21	110 x 180 x 111	PCI 08-11M	60.11 18 25	•	•	•			•	•			•		
ECO 08-9 t	60.11 18 12	110 x 180 x 90			•	•	•			•	•			•		
ECO 08-11 t	60.11 18 22	110 x 180 x 111			•	•	•			•	•			•		
ECO 09-9	60.18 18 11	180 x 182 x 90	PCI 09-9M	60.18 18 15	•					•				•		
ECO 09-11	60.18 18 21	180 x 182 x 111	PCI 09-11M	60.18 18 25	•					•				•		
ECO 09-16	60.18 18 31	180 x 182 x 165			•					•				•		
ECO 09-9 t	60.18 18 12	180 x 182 x 90			•					•				•		
ECO 09-11 t	60.18 18 22	180 x 182 x 111			•					•				•		
ECO 09-16 t	60.18 18 32	180 x 182 x 165			•					•				•		
ECO 10-6	60.18 25 10	180 x 254 x 63	PCI 10-6M	60.18 25 05	•					•				•	•	
ECO 10-9	60.18 25 11	180 x 254 x 90	PCI 10-9M	60.18 25 15	•					•				•	•	
ECO 10-11	60.18 25 21	180 x 254 x 111	PCI 10-11M	60.18 25 25	•					•				•		
ECO 10-16	60.18 25 31	180 x 254 x 165			•					•				•		
ECO 10-6t	60.18 25 09	180 x 254 x 63			•					•				•	•	
ECO 10-9 t	60.18 25 12	180 x 254 x 90			•					•				•		
ECO 10-11 t	60.18 25 22	180 x 254 x 111			•					•				•		
ECO 10-16 t	60.18 25 32	180 x 254 x 165			•					•				•	•	
ECO 11-11	60.25 36 11	254 x 361 x 111	PCI 11-11M	60.25 36 15	•									•	•	
ECO 11-16	60.25 36 21	254 x 361 x 165			•									•	•	
ECO 11-11 t	60.25 36 12	254 x 361 x 111			•									•	•	
ECO 11-16 t	60.25 36 22	254 x 361 x 165			•									•	•	

t = transparent lid



Accessories

External mounting brackets	60.00 04 00
External hinge (pair) to ECO/PCI 07- (small)	60.00 04 07
External hinge (pair) from ECO/PCI 08- (large)	60.00 04 08
Knurled screw (set)	60.00 04 01
Spacers (set = 8 pcs.)	60.00 04 02

Accessories



Mounting plate

made of plastic, 2.5 mm thick, incl. self-tapping fastening screws and spacers

Order No.	
60.00 01 01	for ECO/PCI 01-
60.00 01 02	for ECO/PCI 02-
60.00 01 03	for ECO/PCI 03-
60.00 01 04	for ECO/PCI 04-
60.00 01 05	for ECO/PCI 05-
60.00 01 06	for ECO/PCI 06-
60.00 01 07	for ECO/PCI 07-
60.00 01 08	for ECO/PCI 08-
60.00 01 09	for ECO/PCI 09-
60.00 01 10	for ECO/PCI 10-
60.00 01 11	for ECO/PCI 11-



DIN rails

Order No.	
TS 15	
60.00 02 01	49,5 mm for ECO/PCI 01/02-
60.00 02 02	80 mm for ECO/PCI 02/03-
60.00 02 03	92 mm for ECO/PCI 04/05-
60.00 02 04	111 mm for ECO/PCI 04/06-
60.00 02 05	154 mm for ECO/PCI 07-
TS 35/7,5	
60.00 03 01	81 mm for ECO/PCI 05-
60.00 03 02	106 mm for ECO/PCI 04/06-
60.00 03 03	144 mm for ECO/PCI 07/08/09-
60.00 03 04	216 mm for ECO/PCI 10-
60.00 03 05	336 mm for ECO/PCI 11-



Set of hinges

set = 2 pcs

Order No.	
60.00 04 07	to ECO/PCI 07- (small)
60.00 04 08	from ECO/PCI 08- (large)

ECO / PCI compact enclosures

Accessories



External fasteners
set = 4 pcs

Order No. **60.00 04 00**



Knurled screws
to clip on the lid screw as a hand turn lock
set = 4 pcs

Order No. **60.00 04 01**



Spacers
6 and 8 mm, plastic, for desired spacings between PCB's or mounting plates
set = 8 pcs

Order No. **60.00 04 02**



Double membrane connecting plug
IP 66, with 2 integrated sealing membranes, interference fit without counter-nut, for wall thicknesses of 1.5 - 4.5 mm

Order No.		Sealing range (mm)
60.00 05 16	50 pcs M 16	5 - 9
60.00 05 20	50 pcs M 20	7 - 12
60.00 05 25	50 pcs M 25	9 - 16
60.00 05 32	50 pcs M 32	14- 21



Ventilation plug
with labyrinth seal to prevent the formation of condensation; IP x 4; for wall thicknesses of 1.5 - 4.5 mm

Order No.	
60.00 04 20	100 pcs M 20





UL-certification only for PG 21



- Enclosure system with hidden external hinge
- Standard version or with window
- Polycase version with integrated handle

Technische Daten

Material:

glass fibre reinforced duroplastic polyester

Colour:

RAL 7038, agate grey
special colour on request

Ingress protection:

IP 66 to EN 60529

Impact resistance:

enclosure without window: IK08
enclosure with window: IK07

Flammability:

V0 / self-extinguishing, UL 94

Insulation:

fully insulated to VDE 0100

Disruptive strength:

18 KV/mm, IEC 60243-1

Toxicity:

halogen-free

Surface resistance:

$>10^{12}$ Ohm, IEC 60093

Door opening angle:

135°

Temperature range:

-40°C to +100°C
window version: -40°C bis +80°C

Included in delivery

Enclosure consisting of base and door;
please order door lock separately, press-in
inserts in base for internal and external
mounting



Polyglas / Polycase

Product range

Polyglas / Polycase	Dimensions (mm) W x L x H	Polyglas	Weight (g)	Polyglas with window and lock	Polycase* without window with handle	Weight (g)	Polycase* with window and handle
Size 1	300 x 400 x 200	21.30 40 00	4388	22.30 40 00	23.30 40 00	5510	24.30 40 00
Size 2	400 x 600 x 250	21.40 60 00	7300	22.40 60 00	23.40 60 00	8400	24.40 60 00

* Please specify fitting side

Note: Enclosure will be supplied without lock, please order separately!

Optional lock (separately)

Triangular lock 8 mm (2 pcs)	21.61 00 03
Square lock 8 mm (2 pcs)	21.61 00 04
Square lock 7 mm (2 pcs)	21.61 00 14
Daimler-Benz lock (2 pcs)	21.61 00 06
Double ward lock 3 mm (2 pcs)	21.61 00 07
Knob (2 pcs)	21.61 00 01
Knob with lock (2 pcs)	21.61 00 02

Accessories (separately)

Mounting plate for size 1 (galvanized sheet steel)	10.01 12 03
Mounting plate for size 2 (galvanized sheet steel)	10.01 12 04
External mounting brackets (4 pcs)	10.03 10 09
Hole lids for fastening through base (4 pcs)	10.03 90 01
Socket spanner, triangular 8 mm	10.04 70 03
Socket spanner, square 8 mm	10.04 70 04
Socket spanner, square 7 mm	10.04 70 14
Socket spanner, Daimler-Benz	10.04 70 06
Socket spanner, knob 3 mm	10.04 70 07

Accessories



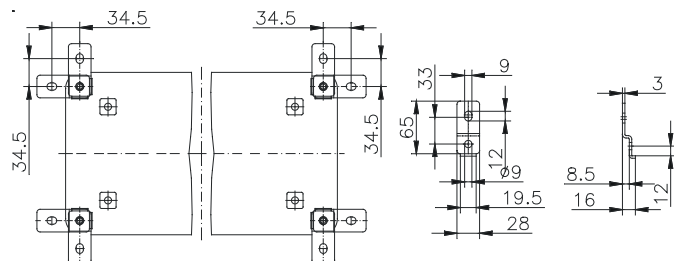
Mounting plates

Order No.	for size
10.01 12 03	300 x 400 mm
10.01 12 04	400 x 600 mm



External mounting brackets

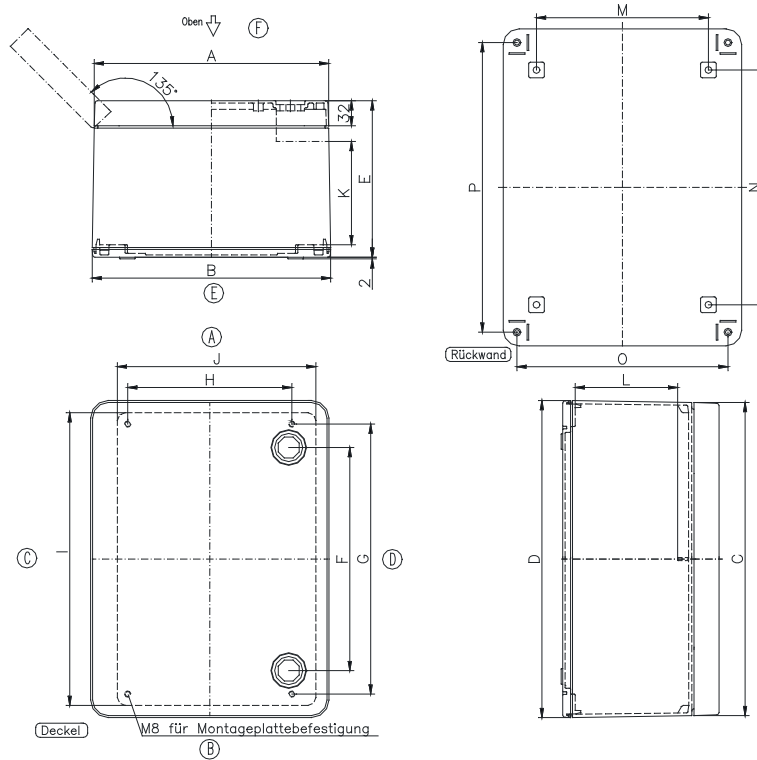
Order No. **10.03 10 09**



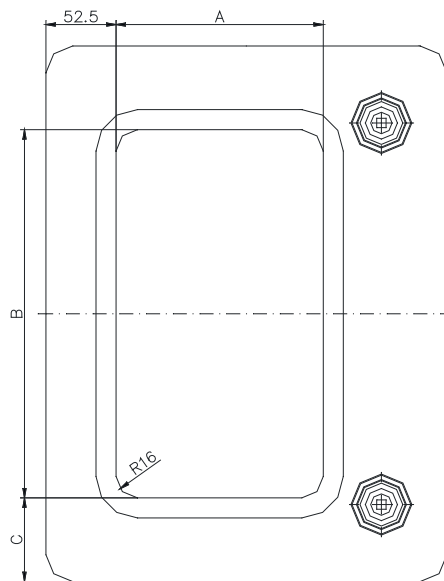
Dimensions

Polyglas

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
21.30 40	300	305	400	405	200	285	345	210	370	254	132	169	220	300	270	370
21.40 60	400	406	600	605	250	478	545	310	566	352	181	217	320	500	370	570



Polycase



Windows

Type	A	B	C
22.30 40	153	275	62,5
22.40 60	250	450	75



UL-Zulassung only for PG 21

- Mini polyglas enclosure with hidden external hinge for MCR technology
- Standard version or with window

Technical data

Material:

glass fibre reinforced duroplastic polyester

Colour:

RAL 7038, agate grey

special colour on request

Ingress protection:

IP 66 to EN 60529

Impact resistance:

enclosure without window: IK08

enclosure with window: IK07

Flammability:

V0 / self-extinguishing, UL 94

Insulation:

fully insulated to VDE 0100

Disruptive strength:

18 KV/mm, IEC 60243-1

Toxicity:

halogen-free

Surface resistance:

$>10^{12}$ Ohm, IEC 60093

Door opening angle:

120°

Temperature range:

-40°C to +100°C

window version: -40°C to +80°C

Included in delivery

Enclosure consisting of base and door;
please order door lock separately, press-in
inserts in base for internal mounting



Product range

Mini-Polyglas	Dimensions (mm) W x L x H	Weight (g)	Mini-Polyglas	Mini-Polyglas with window	Mounting plate (sheet steel, separately)
Größe 1	120 x 200 x 100	1240	21.12 20 00	22.12 20 00	10.01 12 07
Größe 2	160 x 260 x 100	1900	21.16 26 00	22.16 26 00	10.01 12 08
Größe 3	160 x 340 x 100	2000	21.16 34 00	22.16 34 00	10.01 12 09
Größe 4	200 x 150 x 100	1380	21.20 15 00	22.20 15 00	10.01 12 10
Größe 5	200 x 200 x 170	2068	21.20 20 00	22.20 20 00	10.01 12 01
Größe 6	200 x 300 x 170	2990	21.20 30 00	22.20 30 00	10.01 12 02

Note: Standard delivery enclosure without locking screws, please order separately

Optional screw plugs (separately)

Triangular screw 8 mm (2 pcs)	21.63 00 03
Square screw 8 mm (2 pcs)	21.63 00 04
Square screw 6 mm (2 pcs)	21.63 00 24
Philip screw (2 pcs)	21.63 00 05

Accessories

External mounting brackets (4 pcs)	10.03 10 08
Socket spanner, triangular 8 mm	10.04 70 03
Socket spanner, square 8 mm	10.04 70 04
Philips socket spanner	10.04 70 05

Accessories



Mounting plates

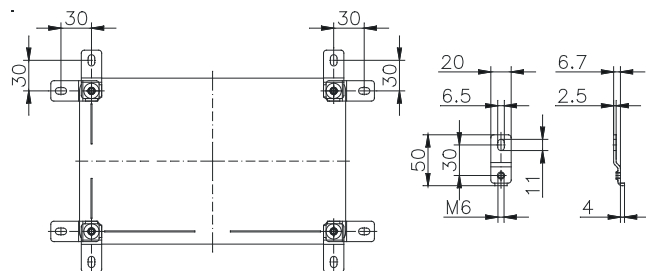
Order No.	for type
10.01 12 07	21.12 20
10.01 12 08	21.16 26
10.01 12 09	21.16 34
10.01 12 10	21.20 15
10.01 12 01	21.20 20
10.01 12 02	21.20 30



External mounting brackets

set = 4 pcs

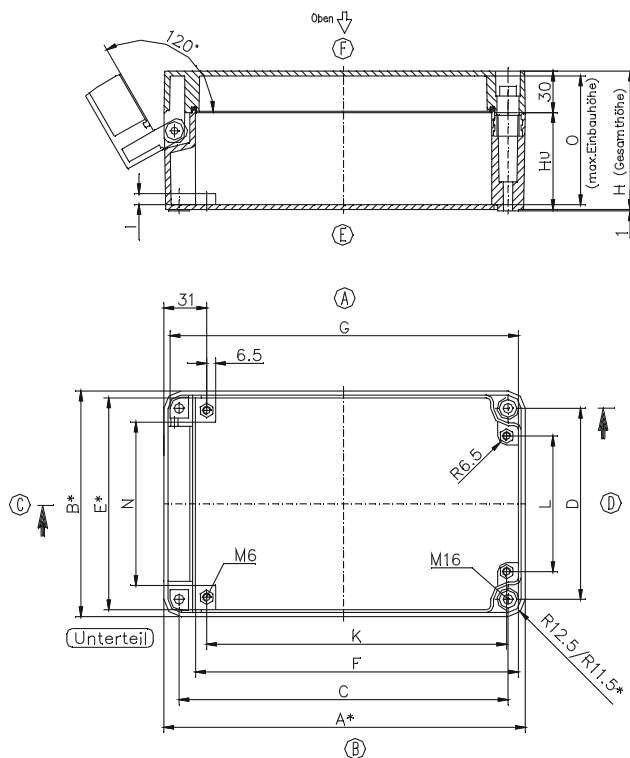
Order No. **10.03 10 08**



Mini-Polyglas

Dimensions

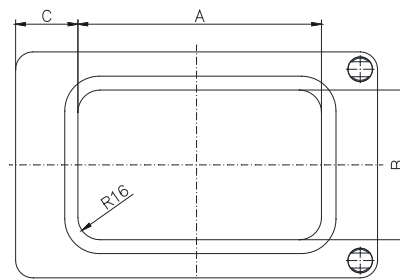
Type	A	B	C	D	E	F	G	I	K	L	M	N	H _U	H _{Ges}
21.12 20	201,5/155*	123/120,5*	178	98	113/111*	173,5	190	7	157	58	95	78	70	100
21.16 26	261,5/259*	163/160,5*	238	138	153/151*	233,5	250	8	217	98	118	118	70	100
21.16 34	341,5/339*	163/160,5*	318	138	153/151*	313,5	330	7,5	297	98	118	118	70	100
21.20 15	151,5/149*	203/200,5*	128	178	193/191*	123,5	140	8,5	88	175	158	158	70	100
21.20 20	200/197*	200/197*	175	175	190/187*	173	188	8,5	135	170	149	149	138	168
21.20 30	300/297*	200/197*	275	175	190/187*	273	288	8,5	235	170	149	149	138	168



* = Conical form tapering downwards
Free dimensions-tolerance to DIN 16901 - 130

Windows

Type	A	B	C
22.12 20 00	116	66	45
22.16 26 00	176	108	45
22.16 34 00	256	108	45
22.20 15 00	66	147	45
22.20 20 00	120	120	45
22.20 30 00	210	120	45





Technical data

Material:

glass fibre reinforced duroplastic polyester / ABS

Colour:

Polyester: RAL 7032, pebble grey

ABS: RAL 7035, light grey

special colour on request

Ingress protection:

IP 65 acc. to EN 60529

Impact resistance:

IK07 acc. to EN 60068-2-75

Flammability:

Polyester: V0 / self-extinguishing, UL 94

ABS: HB, UL 94

Insulation:

fully insulated to VDE 0100

Disruptive strength:

Polyester: 26 KV/mm, IEC 60243-1

ABS: 24 KV/mm, IEC 60243-1

Toxicity:

halogen-free

Surface resistance:

Polyester: 4×10^{15} Ohm, IEC 60093

ABS: 4×10^{14} Ohm, IEC 60093

Door opening angle:

135°

Temperature range:

Polyester: -55°C to +90°C

with window: -55°C to +80°C

ABS: -40°C to +70°C

- Enclosure system with hinged lid for MCR technology
- Standard version or with window panel or transparent door (ABS)

Included in delivery

Enclosure consisting of base and door, please order door lock separately, press-in inserts in base for internal and external mounting.



Polyester / ABS cabinets

Productrange

	Dimensions (mm) W x L x H	Weight (g)	ABS	ABS transparent door	Polyester	Polyester with window
Size 1	200 x 250 x 150	748	21.20 25 90	22.20 25 90	-	-
Size 2	250 x 300 x 170	1248	21.25 30 90	22.25 30 90	-	-
Size 1	200 x 250 x 150	1300	-	-	21.20 25 00	22.20 25 00
Size 2	250 x 300 x 170	2530	-	-	21.25 30 00	22.25 30 00

Note: Standard delivery enclosure without locking screws, please order separately

Optional lock (separately)

Triangular lock 8 mm (1 pc)	21.62 00 03
Square lock 8 mm (1 pc)	21.62 00 04
Knob (1 pc)	21.62 00 01
Knob with lock (1 pc)	21.62 00 02

Accessories (separately)

Mounting plate for size 1 (hard paper)	10.01 12 05
Mounting plate for size 2 (hard paper)	10.01 12 06
Internal aluminium front plate with stud bolt for size 1	10.01 31 01
Internal aluminium front plate with stud bolt for size 2	10.01 31 02
External mounting brackets (4 pcs)	10.03 10 10
Hole covers for fastening through the cabinet bottom (4 pcs)	10.03 90 02
Socket spanner, triangular 8 mm	10.04 70 03
Socket spanner, triangular 8 mm	10.04 70 04



Accessories



Mounting plate

Order No.	for type
10.01 12 05	21.20 25
10.01 12 06	21.25 30



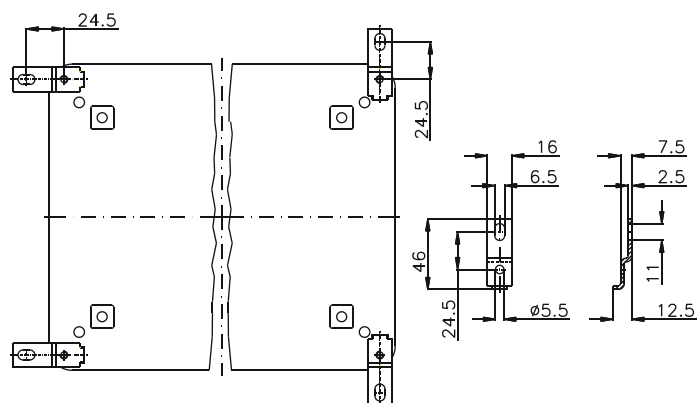
Internal front plate with stud bolt

Order No.	for type
10.01 31 01	21.20 25
10.01 31 02	21.25 30



External mounting brackets

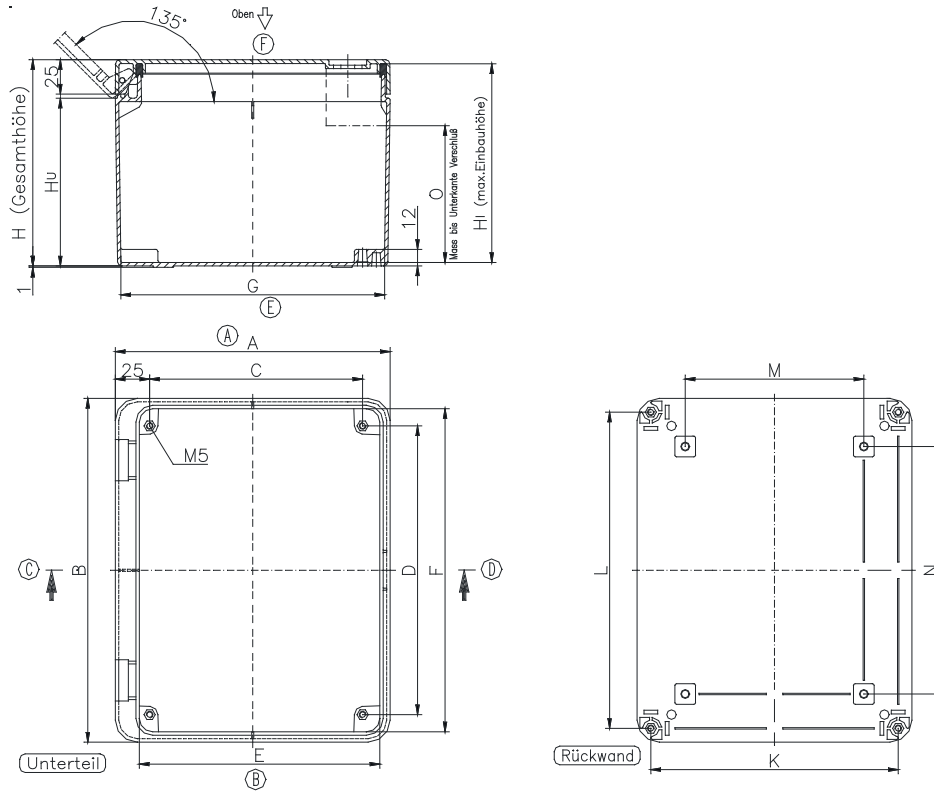
Order No. **10.03 10 10**



Polyester / ABS cabinets

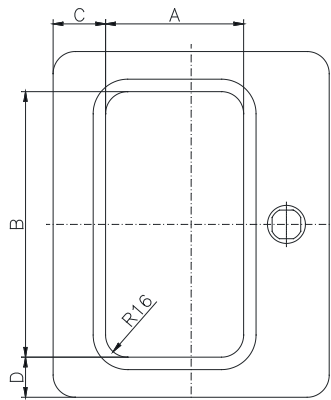
Dimensions

Type	A	B	C	D	E	F	G	K	L	M	M	O	H _i	H _u	H _{Ges.}
21./22.20 25 00	200	250	155	210	174	236,5	194	180	230	130	180	100	144	122	150
21./22.25 30 00	250	300	205	260	223	285	243	230	280	180	230	119	164	142	170
21./22.20 25 90	200	250	155	210	174	236,5	194	180	230	130	180	100	144	122	150
21./22.25 30 90	250	300	205	260	223	285	243	230	280	180	230	119	164	142	170



Window (with polyester version)

Type	A	B	C	D
21.20 25	100	192	38	29
21.25 30	145	242	43	29





- Universal Stainless Steel modular system
- Optional screwed or hinged lid design
- Flexible mounting options in the base and mounting holes for wall mounting
- Ingress Protection up to IP 69 (with screwed lid)

Technical data

Material:

Stainless steel 1,25mm, 1.4301
optional 1.4404

Surface:

grinded, grain 320

Ingress protection:

screwed lid: IP 66 / IP 69
hinged lid: IP 66

Impact resistance:

IK09 acc. to EN 60068-2-75

Temperature range:

Standard:
VMQ (Silicone-) seal -60 to +130°C
optional:
PU (Polyurethane-) seal -40 to +100°C
optional:
EMC seal -25 to +80°C

Included in delivery

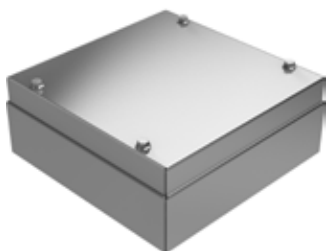
Enclosure acc. to configuration
- with hinged or screwed lid
- with or without mounting plate
- with or without external mounting brackets



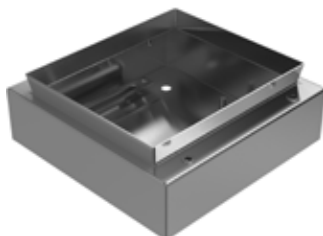
Stainless Steel RMS ROSE Modular System

RMS Modular system

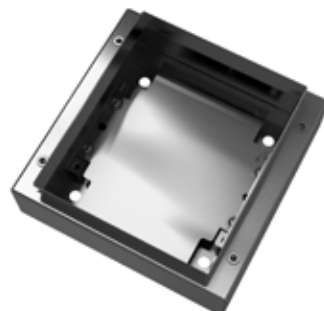
RMS is a modular system, individually assemble your personal stainless steel enclosure from our new RMS series.



Enclosure with screwed lid



Base with brackets



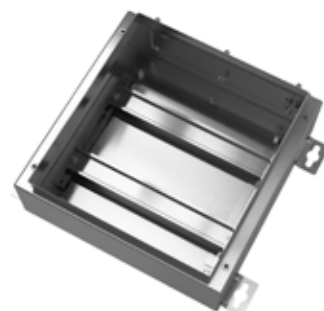
Base with mounting plate



Enclosure with hinged lid



Base with mounting brackets



Base with mounting rails and flange plate

Accessories



Mounting plate

Enclosure W x H (mm)	Area of occupancy (mm)
200x200	160x170
300x200	260x170
400x200	360x170
300x300	260x270
400x300	360x270
300x500	260x470
300x600	260x570
400x400	360x370
500x300	460x270
400x500	360x470
400x600	360x570
500x500	490x470
500x600	460x570
600x600	560x570



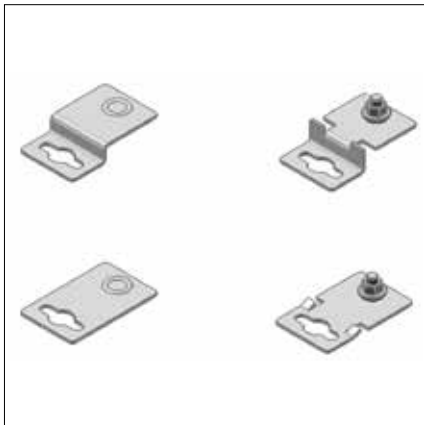
Accessories



Flange 1	20 x 85 mm
Flange 2	260 x 125 mm
Flange 3	360 x 162 mm
Flange 4	460 x 165 mm

Flange plate

Size	Enclosure No.	Side	
		A/B Flangetype	C/D Flangetype
200x200x80	01		
300x200x80	02		
200x200x120	03		
300x200x120	04	1	
400x200x120	05	1	
300x300x120	06	1	1
400x300x120	07	1	1
300x500x120	08	1	1
300x600x120	09	1	1
300x300x160	10	2	2
400x300x160	11	2	2
300x500x160	12	2	2
400x400x160	13	2	2
300x600x160	14	2	2
300x300x200	15	2	2
400x300x200	16	3	2
500x300x200	17	4	2
400x400x200	18	3	3
300x600x200	19	2	4
400x500x200	20	3	4
400x600x200	21	3	4
500x500x200	22	4	4
500x600x200	23	4	4
500x500x260	24	4	4
600x600x260	25	4	4



Mounting brackets

External mounting brackets for wall installation. Straight or cranked alignment (for space between wall and enclosure). Screwed or welded version available.



Cam locks

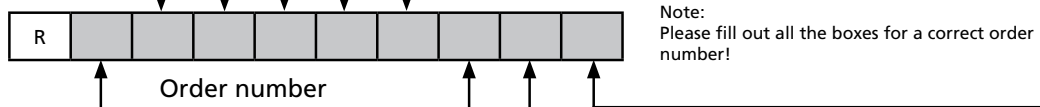
Optionally, fasteners made of stainless steel, chrome-plated zinc or plastic can be used.

Stainless Steel RMS ROSE Modular System

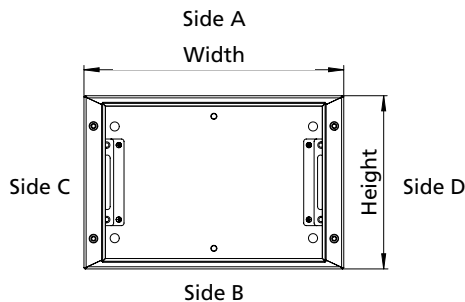
Selection Chart Stainless Steel RMS Enclosure

For a non-binding offer, send us your configuration to rose@rose-pw.de

Dimensions W x H x D (mm)	CODE	Lid version	CODE	Lid mounting screws resp. lock	CODE	Hinge side	CODE	Seal	CODE
200 x 200 x 80	01	screwed lid	1	just for screwed lid:		screwed lid	0	silicone seal	1
300 x 200 x 80	02	hinged lid	2	external hex screw M5	A	hinge side C	1	EMC seal	2
200 x 200 x 120	03					hinge side D	2		
300 x 200 x 120	04			just for hinged lid:					
400 x 200 x 120	05			double ward 3 mm SS	D				
300 x 300 x 120	06			double ward 3 mm PA	E				
400 x 300 x 120	07								
300 x 500 x 120	08								
300 x 600 x 120	09								
300 x 300 x 160	10								
400 x 300 x 160	11								
300 x 500 x 160	12								
400 x 400 x 160	13								
300 x 600 x 160	14								
300 x 300 x 200	15								
400 x 300 x 200	16								
500 x 300 x 200	17								
400 x 400 x 200	18								
300 x 600 x 200	19								
400 x 500 x 200	20								
400 x 600 x 200	21								
500 x 500 x 200	22								
500 x 600 x 200	23								
500 x 500 x 260	24								
600 x 600 x 260	25								



Material	CODE	External mounting brackets	CODE	Flanges	CODE	Mounting plate mounted	CODE
Industrial execution: 304	1	No	X	No flange	X	No	0
Industrial execution: 316	2	screwed straight alignment side A/B	A	Flange side A	A	Yes	1
Ex empty execution: 304	3	screwed straight alignment Side C/D	B	Flange side B	B		
Ex empty execution: 316	4	screwed cranked alignment Side A/B	C	Flange side C	C		
Ex e execution: 304	5	screwed cranked alignment Side C/D	D	Flange side D	D		
Ex e execution: 316	6	welded straight alignment Side A/B	E	Flanges side A/B	E		
		welded straight alignment Side C/D	F	Flanges side A/C	F		
		welded cranked alignment Side A/B	G	Flanges side A/D	G		
		welded cranked alignment Side C/D	H	Flanges side B/C	H		
		Spacer plate with mounting hole	I	Flanges side B/D	I		
				Flanges side C/D	J		
				Flanges side ABC	K		
				Flanges side ABD	L		
				Flanges side ACD	M		
				Flanges side BCD	N		
				Flanges side ABCD	O		



Example

R	1	16	2	D	2	1	D	F	1
---	---	----	---	---	---	---	---	---	---

Industrial enclosure, material 304, size 400 x 300 x 200 mm with hinged lid, double ward lock 3 mm stainless steel, hinge side D, with silicone seal, with screwed-on cranked external brackets, side C / D alignment, with flange on side A and C and a mounted mounting plate





- Universal industrial enclosures for hygienic areas
- High quality surface 1.4301
- No gaps between lid/base
- Enclosure rating up to IP 69K (on request)

Included in delivery

Enclosure base with bracket clips and threaded hole for attachment of DIN rails, 4 mounting bosses with attachment holes and sealing plugs, alternatively available without fastening holes, lid with stud bolts inside and permanently attached lid screws.

Technical data

Material:

stainless steel 1.25 mm or 1.5 mm; 1.4301 / 304
other materials on request

Ingress protection:

IP 66 to EN 60529
high pressure cleaner-resistant version (IP 69K)
on request

Seal:

VMQ (silicone)
EMC on request

Surface:

grinded, grain 240
other surface on request

Temperature range:

-40°C to +80°C
other temperature ranges on request



Stainless steel industrial enclosures

Product range

Order No.				
Enclosure with mounting bosses and holes	Enclosure with mounting bosses without holes	Mountingplate	Weight (g)	Dimensions (mm) L x W x H
37.10 10 06	37.10 10 96	10.01 10 53	561	100 x 100 x 61
37.15 10 06	37.15 10 96	10.01 10 54	717	150 x 100 x 61
37.15 15 08	37.15 15 98	10.01 10 38	1175	150 x 150 x 81
37.20 10 06		10.01 10 55	914	200 x 100 x 61
37.20 20 08	37.20 20 98	10.01 10 40	1792	200 x 200 x 81
37.20 20 12	37.20 20 92	10.01 10 40	2106	200 x 200 x 121
37.30 15 08		10.01 10 39	1893	300 x 150 x 81
37.30 20 08		10.01 10 41	2367	300 x 200 x 81
37.30 20 12	37.30 20 92	10.01 10 41	2770	300 x 200 x 121
37.30 30 12		10.01 10 44	3792	300 x 300 x 121
37.30 30 16		10.01 10 44	4101	300 x 300 x 161
37.38 38 16		10.01 10 45	5838	380 x 380 x 161
37.40 15 08		10.01 10 56	2370	400 x 150 x 81
37.40 20 12		10.01 10 43	3383	400 x 200 x 121
37.40 30 16		10.01 10 48	5268	400 x 300 x 161
37.50 30 16		10.01 10 57	6237	500 x 300 x 161
37.50 40 16		10.01 10 49	7333	500 x 400 x 161
37.60 20 12		10.01 10 58	5798	600 x 200 x 121
37.99 99 99				Special size acc. specification

Accessories

Mounting set (gaskets, nuts and screws)	37.99 00 01
External hinge set (2 pcs)	37.00 00 02
External mounting bracket (4 pcs)	37.10 50 00



Accessories



Mounting set

(gaskets, nuts and screws)

Order No. **37.99 00 01**



External hinge set

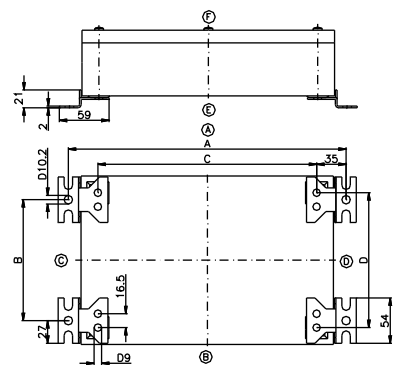
Order No. **37.00 00 02**



External mounting brackets

Order No. **37.10 50 00**

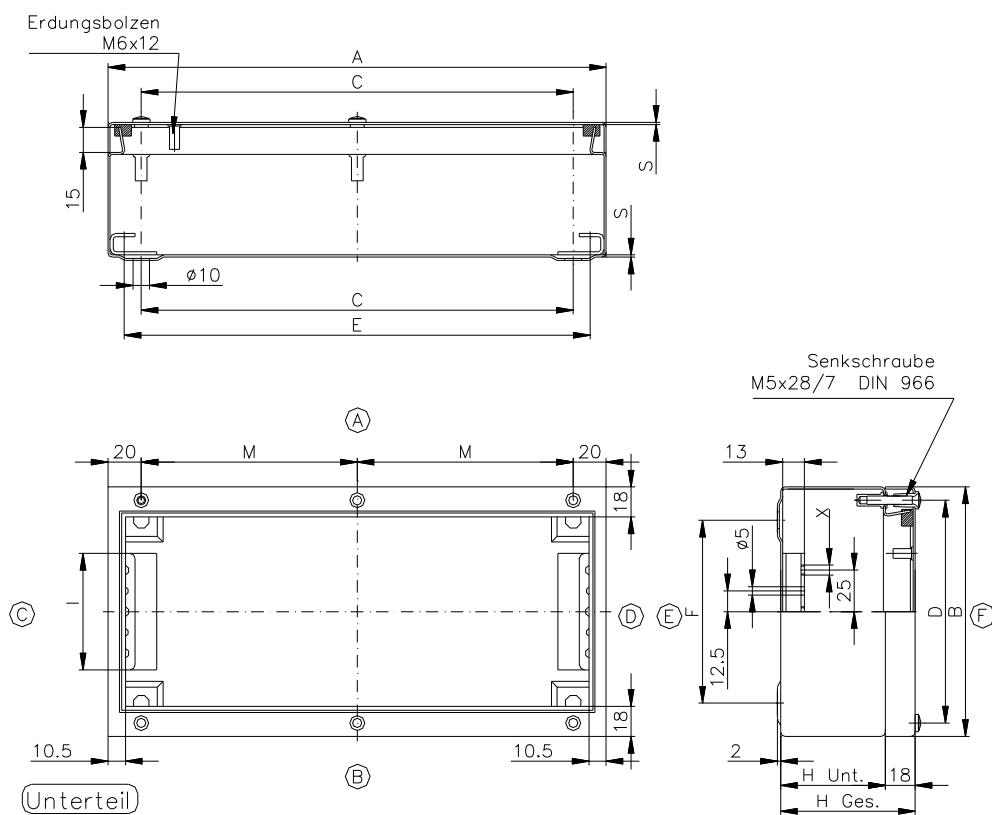
for enclosure type	A	B	C	D
37.10 10 06	130	44	60	60
37.15 10 06	180	44	110	60
37.15 15 08	180	94	110	110
37.20 10 06	230	43	160	60
37.20 20 08	230	144	160	160
37.20 20 12	230	144	160	160
37.30 15 08	330	94	260	110
37.30 20 08	330	144	260	160
37.30 20 12	330	144	260	160
37.30 30 12	330	244	260	260
37.30 30 16	330	244	260	260
37.38 38 16	410	324	340	340
37.40 15 08	430	94	360	110
37.40 20 12	430	144	360	160
37.40 30 16	430	244	360	260
37.50 30 16	530	244	460	260
37.50 40 16	530	344	460	360
37.60 20 12	630	144	560	160



Stainless steel industrial enclosures

Dimensions

Order No.	Enclosure with mounting bosses and holes	Enclosure with mounting bosses without holes	Weight (g)	Dimensions (mm)													H _U	H _{Ges}	H _D
				A	B	C	D	E	F	I	K	S	M	X					
37.10 10 06		37.10 10 96	561	100	100	60	84	81	60	20	11,25	1,25	-	M4	46	61	15		
37.15 10 06		37.15 10 96	717	150	100	110	84	131	60	20	11,25	1,25	-	M4	46	61	15		
37.15 15 08		37.15 15 98	1175	150	150	110	134	131	110	70	14,25	1,25	-	M6	63	81	18		
37.20 10 06			914	200	100	160	84	181	60	20	11,25	1,25	-	M4	46	61	15		
37.20 20 08		37.20 20 98	1792	200	200	160	184	181	160	120	14,25	1,25	-	M6	63	81	18		
37.20 20 12		37.20 20 92	2106	200	200	160	184	181	160	120	14,25	1,25	-	M6	103	121	18		
37.30 15 08			1893	300	150	260	134	281	110	70	14,25	1,25	-	M6	63	81	18		
37.30 20 08			2367	300	200	260	184	281	160	120	14,25	1,25	-	M6	63	81	18		
37.30 20 12		37.30 20 92	2770	300	200	260	184	281	160	120	14,25	1,25	-	M6	103	121	18		
37.30 30 12			3792	300	300	260	284	281	260	220	14,25	1,25	-	M6	103	121	18		
37.30 30 16			4101	300	300	260	284	281	260	220	14,25	1,25	-	M6	143	161	18		
37.38 38 16			5838	380	380	340	364	361	340	300	14,25	1,25	-	M6	143	161	18		
37.40 15 08			2370	400	150	360	134	381	110	70	14,25	1,25	-	M6	63	81	18		
37.40 20 12			3383	400	200	360	184	381	160	120	14,25	1,25	-	M6	103	121	18		
37.40 30 16			5268	400	300	360	284	381	260	220	14,25	1,25	-	M6	143	161	18		
37.50 30 16			6237	500	300	460	284	481	260	220	14,25	1,25	230	M6	143	161	18		
37.50 40 16			7333	500	400	460	384	481	360	320	14,25	1,25	230	M6	143	161	18		
37.60 20 12			5798	600	200	560	184	581	160	120	14,25	1,5	280	M6	103	121	18		
37.99 99 99	Special size acc. specification																		



Stainless steel industrial enclosures with hinge IGS



- Universal enclosure with covered hinge and lock
- High quality surface 1.4301

Technical data

Material:

stainless steel 1.25 mm or 1.5 mm; 1.4301 / 304
other materials on request

Ingress protection:

IP 66 acc. to EN 60529

Seal:

VMQ (silicone)
EMC on request

Surface:

grinded, grain 240
other surface on request

Temperature range:

-40°C to +80°C
other temperature ranges on request

Included in delivery

Enclosure with hinged lid, double ward lock, 4 floor mounting bosses with fastening holes and sealing plugs



Stainless steel industrial enclosures with hinge IGS

Product range

Order No.	Weight (g)	Mounting plate	Dimensions (mm) L x W x H
37.00 22 09	2350	10.01 10 66	200 x 250 x 97
37.00 22 15	2880	10.01 10 66	200 x 250 x 157
37.00 32 09	3490	10.01 10 67	350 x 250 x 97
37.00 33 16	4360	10.01 10 44	300 x 300 x 167
37.00 44 16	6080	10.01 10 45	380 x 380 x 167
37.00 44 21	6820	10.01 10 45	380 x 380 x 217
37.00 53 16	6350	10.01 10 57	500 x 300 x 167
37.00 63 16	8750	10.01 10 68	600 x 300 x 167
37.00 64 21	11420	10.01 10 69	600 x 380 x 217
37.00 99 00			Special size (acc. specification)

Accessories

Mounting set (gaskets, nuts and screws) 37.99 00 01	37.99 00 01
External mounting bracket (4 pcs) 37.10 50 00	37.10 50 00



Stainless steel industrial enclosures with hinge IGS

Accessories



Mounting set
(gaskets, nuts and screws)

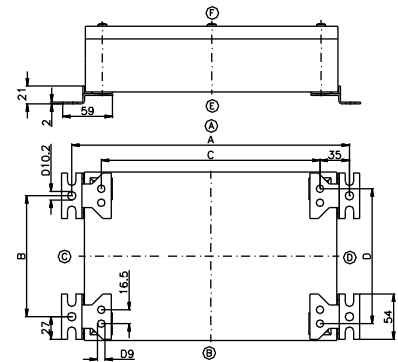
Order No. **37.99 00 01**



External mounting brackets

Order No. **37.10 50 00**

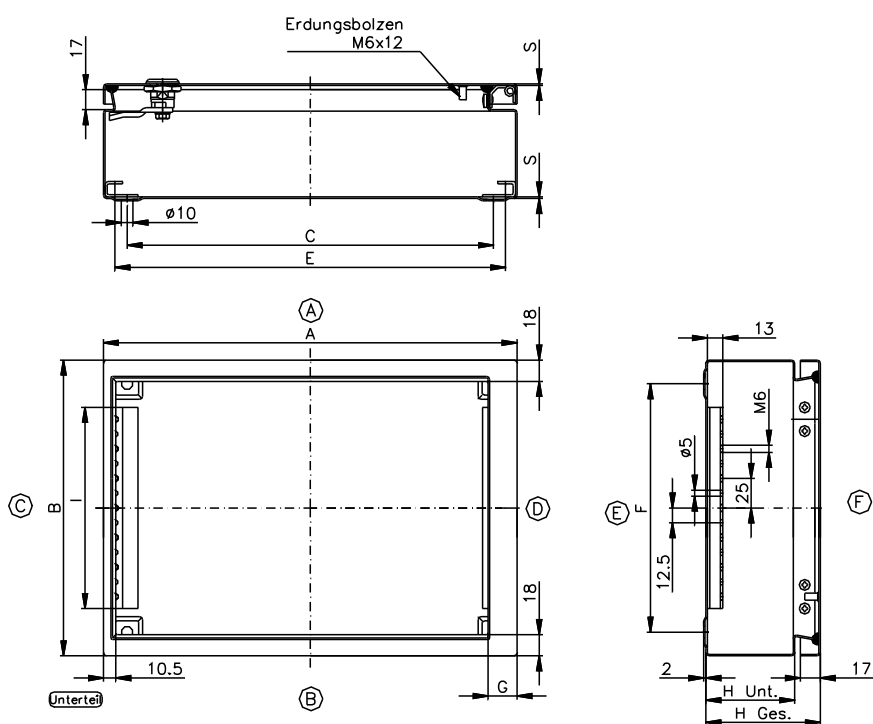
for type	A	B	C	D
37.00 22 09	230	194	160	210
37.00 32 09	380	194	310	210
37.00 22 15	230	194	160	210
37.00 33 16	330	244	260	260
37.00 44 16	410	324	340	340
37.00 53 16	530	244	460	260
37.00 63 16	630	244	560	260
37.00 44 21	410	324	340	340
37.00 64 21	630	324	560	340

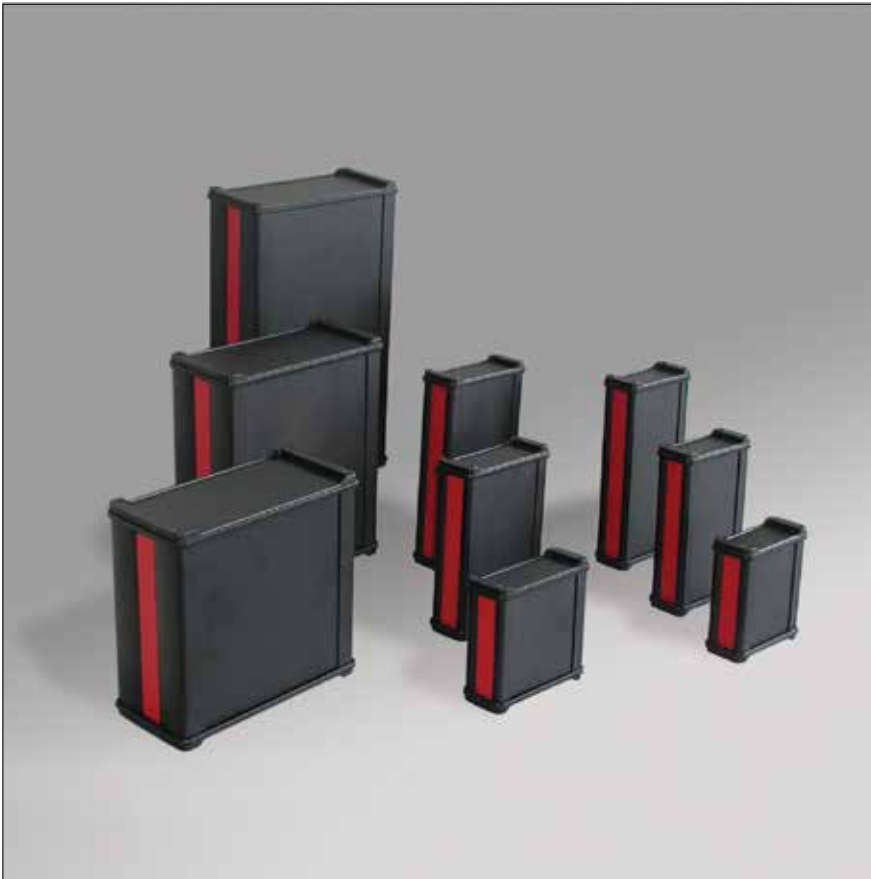


Stainless steel industrial enclosures with hinge IGS

Dimensions

Order No.	Weight (g)	Dimensions (mm)									
		A	B	C	E	F	I	G	S	H _U	H _{Ges}
37.00 22 09	2350	200	250	160	181	210	170	25	1,25	75	97
37.00 22 15	2880	200	250	160	181	210	170	25	1,25	135	157
37.00 32 09	3490	350	250	310	331	210	170	25	1,25	75	97
37.00 33 16	4360	300	300	260	281	260	220	25	1,25	145	167
37.00 44 16	6080	380	380	340	361	340	300	25	1,25	145	167
37.00 44 21	6820	380	380	340	361	340	300	25	1,25	195	217
37.00 53 16	6350	500	300	460	481	260	220	25	1,25	145	167
37.00 63 16	8750	600	300	560	580	260	220	25	1,5	145	167
37.00 64 21	11420	600	380	560	580	340	300	25	1,5	195	217
37.00 99 00		Special size (acc. specification)									





- Aluminium profile enclosure system in 5 dimensions for data, PC and MCR technology
- External screw channels guarantee internal area without splinter
- Integrated guide grooves for PCB's
- External system groove (except NoVoTronic 200)
- Variable length by profile system

Technical data

Material:

Enclosure profile: DIN EN 573 EN AW-AlMgSi

Enclosure lid: DIN EN 1706 EN AC-AlSi 12 (Fe)

Ingress protection:

IP 65 to EN 60529

Painting:

Powder coating

Colour:

Enclosure body and enclosure lid:

RAL 9005, jet black

Multi-function profile:

RAL 3003, ruby red

EMC:

Optional EMC version

Temperature range:

-40°C to +90°C

Transparent cover: -40°C to +60°C

Included in delivery

Enclosure with 2 Aluminium diecast lids
and 2 multi-function profiles, not screwed



NoVoTronic

Product range

Type	Order No. Standard	Order No. EMC-Version	Weight (g)	External enclosure dimension WxHxD (mm)	Internal enclosure dimension WxHxD (mm)
NoVoTronic 80					
NoVo-Tronic 80-100	07.50 10 10	07.51 10 10	480	106 x 49 x 120	80 x 36 x 100
NoVo-Tronic 80-160	07.50 10 11	07.51 10 11	660	106 x 49 x 180	80 x 36 x 160
NoVo-Tronic 80-200	07.50 10 12	07.51 10 12	780	106 x 49 x 220	80 x 36 x 200
NoVo-Tronic 80-SL	07.50 10 99	07.51 10 99		106 x 49 x SL	80 x 36 x SL
NoVoTronic 100					
NoVo-Tronic 100-100	07.50 20 10	07.51 20 10	550	126 x 49 x 120	100 x 36 x 100
NoVo-Tronic 100-160	07.50 20 11	07.51 20 11	750	126 x 49 x 180	100 x 36 x 160
NoVo-Tronic 100-200	07.50 20 12	07.51 20 12	880	126 x 49 x 220	100 x 36 x 200
NoVo-Tronic 100-SL	07.50 20 99	07.51 20 99		126 x 49 x SL	100 x 36 x SL
NoVoTronic 130					
NoVo-Tronic 130-130	07.50 25 10	07.51 25 10	880	157 x 69 x 150	130 x 57 x 130
NoVo-Tronic 130-160	07.50 25 11	07.51 25 11	1020	157 x 69 x 180	130 x 57 x 160
NoVo-Tronic 130-200	07.50 25 12	07.51 25 12	1200	157 x 69 x 220	130 x 57 x 200
NoVo-Tronic 130-SL	07.50 25 99	07.51 25 99		157 x 69 x SL	130 x 57 x SL
NoVoTronic 160					
NoVo-Tronic 160-160	07.50 30 10	07.51 30 10	1500	190 x 90 x 180	160 x 76 x 160
NoVo-Tronic 160-200	07.50 30 11	07.51 30 11	1800	190 x 90 x 220	160 x 76 x 200
NoVo-Tronic 160-300	07.50 30 12	07.51 30 12	2500	190 x 90 x 320	160 x 76 x 300
NoVo-Tronic 160-SL	07.50 30 99	07.51 30 99		190 x 90 x SL	160 x 76 x SL
NoVoTronic 200					
NoVo-Tronic 200-220	07.50 40 10	07.51 40 10	2500	233 x 121 x 240	200 x 105 x 220
NoVo-Tronic 200-280	07.50 40 11	07.51 40 11	3060	233 x 121 x 300	200 x 105 x 280
NoVo-Tronic 200-330	07.50 40 12	07.51 40 12	3450	233 x 121 x 350	200 x 105 x 330
NoVo-Tronic 200-SL	07.50 40 99	07.51 40 99		233 x 121 x SL	200 x 105 x SL

SL = special length

Accessories

	Order No.	NoVoTronic 80	NoVoTronic 100	NoVoTronic 130	NoVoTronic 160	NoVoTronic 200
Wall profile 80/100-100	07.50 90 11	X	X			
Wall profile 80/100-160	07.50 90 12	X	X			
Wall profile 80/100-200	07.50 90 13	X	X			
Wall profile 80/100-SL	07.50 90 99	X	X			
Wall profile 130/160-130	07.50 91 11			X	X	
Wall profile 130/160-160	07.50 91 12			X	X	
Wall profile 130/160-200	07.50 91 13			X	X	
Wall profile 130/160-300	07.50 91 14			X	X	
Wall profile 130/160-SL	07.50 91 99			X	X	
Lid wall holder 80/100	07.50 90 02	X	X			
NoVo-wall holder P80	07.50 90 03	X				
NoVo-wall holder P100	07.50 90 04		X			
NoVo-wall holder P130	07.50 90 15			X		
NoVo-wall holder P160	07.50 90 05				X	
Foot / connection element 80	07.50 90 06	X				
Foot / connection element 100	07.50 90 07		X			
Foot / connection element 130	07.50 90 14			X		

SL = special length





NoVoTronic 80

Type	Order No.	Order No. EMC-Version
NoVo-Tronic 80-100	07.50 10 10	07.51 10 10
NoVo-Tronic 80-160	07.50 10 11	07.51 10 11
NoVo-Tronic 80-200	07.50 10 12	07.51 10 12
NoVo-Tronic 80-SL	07.50 10 99	07.51 10 99



NoVoTronic 100

Type	Order No.	Order No. EMC-Version
NoVo-Tronic 100-100	07.50 20 10	07.51 20 10
NoVo-Tronic 100-160	07.50 20 11	07.51 20 11
NoVo-Tronic 100-200	07.50 20 12	07.51 20 12
NoVo-Tronic 100-SL	07.50 20 99	07.51 20 99



NoVoTronic 130

Type	Order No.	Order No. EMC-Version
NoVo-Tronic 130-130	07.50 25 10	07.51 25 10
NoVo-Tronic 130-160	07.50 25 11	07.51 25 11
NoVo-Tronic 130-200	07.50 25 12	07.51 25 12
NoVo-Tronic 130-SL	07.50 25 99	07.51 25 99



NoVoTronic 160

Type	Order No.	Order No. EMC-Version
NoVo-Tronic 160-160	07.50 30 10	07.51 30 10
NoVo-Tronic 160-200	07.50 30 11	07.51 30 11
NoVo-Tronic 160-300	07.50 30 12	07.51 30 12
NoVo-Tronic 160-SL	07.50 30 99	07.51 30 99



NoVoTronic 200

Type	Order No.	Order No. EMC-Version
NoVo-Tronic 200-220	07.50 40 10	07.51 40 10
NoVo-Tronic 200-280	07.50 40 11	07.51 40 11
NoVo-Tronic 200-330	07.50 40 12	07.51 40 12
NoVo-Tronic 200-SL	07.50 40 99	07.51 40 99

Zubehör



Wall profile (2 pieces)

to insert in system groove for wall fixing

NoVoTronic 80 / 100



Foot / connection element (1 piece)

for stacking or mechanical connection of enclosures

Order No.	for type	Dimensions		
		A	B	C
07.50 90 06	NoVoTronic 80	107,0	33,5	20,0
07.50 90 07	NoVoTronic 100	127,0	33,5	20,0
07.50 90 14	NoVoTronic 130	158,0	51,8	25,0



NoVo-Wall holder

for fixing and connection to command system or walls

Order No.	for type	Dimensions		
		A	B	C
07.50 90 03	NoVoTronic 80	74,0	99,0	41,2
07.50 90 04	NoVoTronic 100	90,0	119,0	41,2
07.50 90 15	NoVoTronic 130	116,5	150,0	51,2
07.50 90 05	NoVoTronic 160	150,0	183,5	61,5



Battery insert

Order No.	
83.90 00 03	for 9V block
83.90 00 06	for 4 x AA cells



Lid wall holder 80/100 (2 pieces)

to screw onto lid for swivelling wall fixing.

Swivel range with mounting on straight area and fastening at middle:

NoVoTronic 80 $\pm 40^\circ$

NoVoTronic 100 $\pm 30^\circ$

Order No. **07.50 90 02**



EN 45545



- Aluminium desktop enclosure for MCR technology
- Individual height versions by profile technology
- Stacking capability using special foot shape
- Contact-uninsulated internal enclosure walls
- Internal groove for spring nuts M4 and M5

Technische Daten

Material:

Half shell: DIN EN 1706 EN AC-AISI 12 (Fe)

Profile: DIN EN 573 EN AW-AMgSi

Ingress protection:

IP 40 acc. to EN 60529

Colour combination:

Enclosure: RAL 7035, light grey
Foot elements: RAL 7024, graphite grey

or enclosure: RAL 9005, jet black
Foot elements: RAL 3003, ruby red

Painting:

Powder coating

Temperature range:

-40°C to +80°C

Included in delivery

Enclosure system with foot/head elements,
front plate/rear wall please order separately



Wavetronic

Product range

Type	Order No.	External enclosure dimension* W x L x H (mm)	Weight (g)	Colour combination	Front plate/rear wall (set, 2 pcs.)	max. front plate connector area
Wavetronic 1	07.70 01 01	324 x 268 x 55	2300	grey/anthracite	07.70 00 91	287 x 37
Wavetronic 1	07.70 02 01	324 x 268 x 55	2300	black/red	07.70 00 91	287 x 37
Wavetronic 2	07.70 01 02	324 x 268 x 101	2700	grey/anthracite	07.70 00 92	287 x 83
Wavetronic 2	07.70 02 02	324 x 268 x 101	2700	black/red	07.70 00 92	287 x 83
Wavetronic 3	07.70 01 03	324 x 268 x 147	3100	grey/anthracite	07.70 00 93	287 x 129
Wavetronic 3	07.70 02 03	324 x 268 x 147	3100	black/red	07.70 00 93	287 x 129
Wavetronic 4	07.70 01 04	324 x 268 x 194	3500	grey/anthracite	07.70 00 94	287 x 176
Wavetronic 4	07.70 02 04	324 x 268 x 194	3500	black/red	07.70 00 94	287 x 176
Wavetronic special height	07.70 01 99	324 x 268 x SH**		grey/anthracite	07.70 00 99	287 x SH***
Wavetronic special height	07.70 02 99	324 x 268 x SH**		black/red	07.70 00 99	287 x SH***

* dimensions without foot elements

** front panel fitting area + 18

*** min. special height = 75 mm; max. special height = 300 mm

EMC version on request

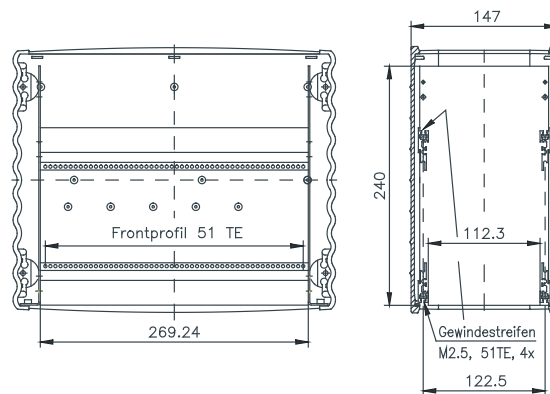
Accessories

Mounting feet (2 pcs), grey	07.70 00 81
Carrying handle	07.70 00 82
19" insert set (53HP / 3HU)	07.70 00 83
Spring nuts M4 (4 pcs)	29.00 00 50
Spring nuts M5 (8 pcs)	10.03 60 01



19" insert set (for Wavetronic 3)

Order No. **07.70 00 83**



Spring nuts for mounting groove

M4 (4 pcs)	29.00 00 50
M5 (8 pcs)	10.03 60 01





Type	Order No.	External enclosure dimension* W x L x H (mm)	Weight (g)	Colour combination	Front plate / rear wall (set, 2 pcs)	max. front plate connector area
Wavetronic 1	07.70 01 01	324 x 268 x 55	2300	grey/anthracite	07.70 00 91	287 x 37
Wavetronic 1	07.70 02 01	324 x 268 x 55	2300	black/red	07.70 00 91	287 x 37

Type	Order No.	External enclosure dimension* W x L x H (mm)	Weight (g)	Colour combination	Front plate / rear wall (set, 2 pcs)	max. front plate connector area
Wavetronic 2	07.70 01 02	324 x 268 x 101	2700	grey/anthracite	07.70 00 92	287 x 83
Wavetronic 2	07.70 02 02	324 x 268 x 101	2700	black/red	07.70 00 92	287 x 83

Type	Order No.	External enclosure dimension* W x L x H (mm)	Weight (g)	Colour combination	Front plate / rear wall (set, 2 pcs)	max. front plate connector area
Wavetronic 3	07.70 01 03	324 x 268 x 147	3100	grey/anthracite	07.70 00 93	287 x 129
Wavetronic 3	07.70 02 03	324 x 268 x 147	3100	black/red	07.70 00 93	287 x 129

Type	Order No.	External enclosure dimension* W x L x H (mm)	Weight (g)	Colour combination	Front plate / rear wall (set, 2 pcs)	max. front plate connector area
Wavetronic 4	07.70 01 04	324 x 268 x 194	3500	grey/anthracite	07.70 00 94	287 x 176
Wavetronic 4	07.70 02 04	324 x 268 x 194	3500	black/red	07.70 00 94	287 x 176



Accessories



Handle

Order No. **07.70 00 82**



Front plate / rear wall

Wavetronic 1	07.70 00 91
Wavetronic 2	07.70 00 92
Wavetronic 3	07.70 00 93
Wavetronic 4	07.70 00 94
Wavetronic special height	07.70 00 99



Mounting feet

Order No. **07.70 00 81**

General technical information

How to choose the right enclosure Various criteria have to be taken into account when selecting a enclosure:
- place of installation (inside/outside, Ex area, saltwater area etc.)
- size (depending on the internal equipment)
- protective function (type of protection, EMC resistance, Ex)
The following lists help you selecting the right enclosure for your special application.

I. Enclosure material specifications

Aluminium enclosure

- light-weight, sturdy metal enclosure
- good chemical resistance (see table)
- can be used for a large temperature range
- EMC basic screening (full screening as an option)
- good machining possibilities
- Applications: suitable for inside and outside, when used outside in an aggressive or saltwater environment, special version or Ex versions available

Polyester enclosure

- plastic enclosure for adverse environments
- good chemical resistance (see table)
- can be used for a large temperature range
- good insulation properties
- V-0 execution (acc. to UL)
- Applications: suitable for inside and outside; industrial standard enclosure

Polycarbonate enclosure

- light-weight plastic enclosure
- good chemical resistance (see table)
- can be used in a large temperature range
- good insulation properties
- good machining possibilities
- transparent executions possible (lid)
- Applications: suitable for inside and outside

ABS enclosure

- light-weight plastic enclosure
- good chemical resistance (see table)
- can be used in standard temperature ranges

Polystyrene enclosure

- light-weight plastic enclosure
- good chemical resistance (see table)
- can be used in standard temperature ranges

II. Ingress protection

The ingress protection of ROSE enclosures is classified in accordance with the generally applicable directives meeting EN 60529 and IEC 144.
The ingress protection are identified by a code composed of two always identical letters IP and two numbers indicating the degree of protection.

Degrees of protection relating to contact and foreign bodies

First number	Denomination
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 grainy foreign bodies
5	Protection against dust deposits
6	Protection against the ingress of dust

Degrees of protection relating to water

Second number	Denomination
0	No protection
1	Protection against vertically dripping water
2	Protection against dripping water at an angle???
3	Protection against water spray
4	Protection against water splashes
5	Protection against water jet
6	Protection against flooding
7	Protection when dipped
8	Protection when immersed

Note: The ingress protection indicated for the enclosures refer to the unmachined enclosures in the delivered state. Aging and temperature fluctuations might lead to a reduction of the degree of protection.



III. Chemical resistance

When assessing whether or not an enclosure is resistant to the influence of chemical substances, not only the enclosure material, but also the type of seals has to be taken into consideration. The following tables only list the most important basic materials used for ROSE enclosures, and the most common chemical substances. These tables only contain information as to how far materials are typically resistant to such substances. Both the concentration and the ambient temperature must also be taken into account. If several chemicals are encountered at the same time, we recommend to carry out an exact investigation to be able to correctly assess the chemical resistance of a material.

Chemical resistance of enclosure materials and seals

Chemicals	Aluminium	ABS	Poly-carbonat	Polyester	Polysterol	Polyamide	Chloroprene	EPDM	NBR	Pocan	Polyurethane	PVC	Silicone
Acetone	+	-	-	-	-	•	+	+	-	+	-	-	•
Formic acid	•	-	30 %	10 %	•	-	+	+	-	10 %	/	< 50 %	•
Ammonia	+	-	-	-	+	20 %	+	+	+	10 %	/	•	+
Petroleum	+	-	•	+	•	+	+	•	+	+	+	+	+
Benzene	+	-	-	+	-	-	-	-	-	+	+	-	-
Brake fluid	/	/	-	+	/	60°	•	-	/	+	/	/	+
Butane	+	/	+	/	-	+	+	/	+	+	/	50 %	-
Butanol	/	/	/	+	/	+	+	/	-	+	/	•	-
Calcium chloride	+	/	+	+	+	+	/	/	/	10 %	/	+	/
Chlorbenzene	+	-	-	+	-	•	-	-	-	-	-	-	-
Diesel oil	/	+	•	+	•	/	•	•	/	+	+	•	•
Acetic acid	+	10 % •	10 %	40 %	+ max. 50 %	-	-	/	-	10 %	/	25 %	-
Formaldehyde	+	+	/	30 %	+ max. 40 %	+	-	/	+	/	/	40 %	+
Frigen 113	/	/	+	+	/	/	+	/	+	+	/	/	/
Fruit juice	/	/	+	+	/	+	+	+	/	+	+	+	+
Glycerine	+	+	•	+	+	+	+	+	+	+	+	+	+
Heating oil	+	•	•	+	•	+	•	•	+	+	+	•	•
Hydraulic oil	/	/	+	+	•	+	+	/	/	+	/	/	•
Lime potash	/	/	-	-	+ max. 50 %	-	+	/	/	10 %	/	+	/
Potassium chloride	•	/	+	+	+	+	+	+	+	10 %	+	+	+
Potassium hydroxide	-	+	/	-	+	/	+	+	+	-	-	/	•
Linseed oil	+	/	+	+	+	+	+	+	+	+	+	+	•
Methanol	+	/	-	-	+	•	+	/	•	+	/	/	+
Methylene chloride	+	/	-	-	-	-	-	/	-	-	-	-	-
Lactic acid	+	+	10 %	+	+ max. 80 %	10 %	+	+	+	/	/	10 %	/
Mineral oils	/	+	+	+	+	+	•	•	+	+	+	+	+
Engine oils	/	/	+	+	+	+	•	•	+	+	+	/	+
Sodium carbonate	•	/	+	+	+	+	/	/	/	10 %	/	/	/
Sodium chloride	•	/	+	+	+	10 %	+	+	+	10 %	+	+	+
Natriumhydroxid	+	+	/	-	/	/	+	+	•	-	-	•	•
Sodium hydroxide	/	-	-	40 %	+ max. 50 %	10 %	50 %	/	-	/	/	60 %	-
Caustic soda	+	30 %	10 %	10 %	+ max. 25 %	-	•	•	•	10 %	-	30 %	-
Nitric acid	/	10 % •	20 %	+	+ max. 10 %	-	+	+	< 65 % •	10 %	-	30 %	/
Hydrochloric acid	+	/	+	+	/	+	•	•	+	+	+	+	+
Lubricating oil	+	/	-	-	-	•	-	/	-	+	/	•	-
Carbon disulfide	•	30 %	50 %	70 %	+ max. 50 %	-	50 %	/	25 %	10 %	/	80 %	25 %
Sulphuric acid	/	/	•	+	/	+	+	/	+	10 %	•	•	+
Soapy lye	/	/	+	/	/	/	+	•	/	+	•	/	+
Turpentine oil	/	/	/	+	-	+	-	/	+	+	/	+	-
Carbon tetrachloride	+	-	/	+	-	•	-	-	-	+	-	•	-
Toluene	+	-	-	+	-	+	-	-	-	•	-	-	-
Trichlorethylene	+	-	/	-	-	-	-	-	-	•	-	-	-
Water (distilled water, fresh water, tap water, saltwater)	/	+	+	+	+	+	+	+	80 C°	+	+	40 C°	+
Tartaric acid	/	/	10 %	+	+	+	+	+	+	/	+	10 %	+
Xylene	+	-	-	+	-	+	-	-	-	•	-	-	-
Zinc sulphate	•	/	+	+	+	/	+	+	+	/	/	40 %	+
Citric acid	+	10 %	10 %	+	+	10 %	+	+	+	10 %	/	10 %	+

Symbol definition

- + resistant to all concentrations
- % resistant to a maximum concentration in %
- C° resistant to maximum C°
- conditional resistance
- non resistance
- / no information

Unless otherwise quoted, the investigation was conducted at ambient temperature. If several substances are encountered, the resistance factors could change. For this reason, we do not assume any liability for the above information.



General technical information

IV. Temperature range

By definition, the temperature resistance refers to the maximum permanent temperature under which the dimensional stability and the type of protection remains guaranteed. Often, the permissible short term peak temperatures can be considerably higher.
The definition of the temperature resistance of process automation components refers to the maximum permanent temperature under the effect of which the perfect function of the factory installed (electronic) components and the type of protection remain guaranteed.
In addition, classifications apply to storage and transport. They are contained in the individual product descriptions.

V. Corrosion resistance

For critical outside areas, we offer:

SWB version (saltwater resistant):
washed - chromated - powder coated
RAL 5009 as standard, other colours on request.
For application areas with extreme UV radiation we recommend coating with a special polyester powder.

SBG/SBGL version only for wet painting processes.
SBG = Washed - chromated - priming
SBGL = Washed - chromated - priming - painting
Stainless steel socket inserts available on request.

EMC in enclosure technology

General information

In electrical/electronic engineering, enclosures assume two tasks:
- protection of the installed components from mechanical hazards and adverse radiation from outside
- protection of the surroundings from occurring mechanical and electrical hazards and adverse interference radiation from the components installed

Especially the electromagnetic compatibility (EMC) has an increasing effect on the selection of enclosures because of the ongoing development of the electronic components and the increased equipment density on the PCB's - which increasingly generates „pollution“ by electromagnetic interference radiation in the environment.

Legal regulations

Within the framework of harmonising the European standards, an EC guideline directive (05.89/336/EEC) was passed in May 1989, which took effect in the Federal Republic of Germany on the 9th Nov. 1992 in the EMC law (EMVG).
This law is applicable to all units which might cause electromagnetic interference or the operation of which could be impaired by such interference.
The EMC directive came into effect on 1.1.1996 EC-wide - from which date all new electrical and electronic units brought into circulation within the EC had to fulfil these regulations.
As an external sign that the EC relevant laws (EMC law and further design basics), these units have to show the CE symbol.

Enclosure requirements

Enclosures as such are not subjected to the EMC law, as by definition they are not electrical or electronic units.
However, enclosures are to a large extent responsible for the intensity of interference emission (receipt and transmission of interference waves) of a unit.
At this point, the choice of the enclosure material is also decisive for the screening effect which is composed of a reflection and an absorption damping of an enclosure.

Synthetic materials (plastics) alone have no filtering effect on interference radiation. A screening effect can be achieved by additional costly treatment (metal flashing or application of a conductive lacquer).

Metal enclosures, on the other hand, offer a highly effective basic protection against interference radiation. (Here an important factor is a large contact surface of the individual components of the enclosure (cover, enclosure shells).

To meet special protection requirements, the EMC compatibility can be increased by
- conductive seals,
- contact bare front surfaces as well as
- EMC compatible cable screw connections.



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