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Explosion Proof and Dust-Ignition Proof Classified Enclosure in Aluminum

8265/6 Enclosure



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1 General Information

1.1 Manufacturer

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1.2 Information regarding this Installation, Operation and Maintenance Sheet

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Subject to alterations.



1.3 Symbols Used

•	Action request:
	Describes actions to be carried out by the user.
\triangleright	Reaction sign:
	Describes the results or the reactions to the actions taken.
X	Bullet
	Information sign:
	Describes notes and recommendations.
A	Warning symbol; danger due to energised parts!
EX	Warning symbol: danger due to explosive atmosphere!

2 General Safety Notes

2.1 Safety Instructions for Assembly and Operating Personnel

The Installation, Operation and Maintenance Sheet contains basic safety instructions which are to be observed during installation, operation and maintenance. Failure to follow this document and manufacturer's recomendations can lead to persons, equipment and the environment being endangered.

MWARNING

Risk due to unauthorized work being performed on the device!

- There is a risk of injury and damage to equipment.
- ▶ Mounting, installation, commissioning and servicing work must only be performed by personnel who are both authorized and suitably trained for this purpose.

Before assembly/putting into service:

- Read through the operating instructions completely.
- Give adequate training to the assembly and operating personnel.
- Ensure that the contents of the operating instructions are fully understood by the personnel in charge, and those performing the work.
- The national and local installation and assembly regulations apply.

If you have questions:

- Contact the manufacturer.



When operating the devices:

- Ensure the operating instructions are made available on location at all times.
- Observe safety instructions.
- Observe national and local safety and accident prevention regulations.
- Only run the device according to its performance data.
- Servicing/maintenance work or repairs which are not described in the operating instructions must not be performed without prior agreement with the manufacturer.
- Any damage may render explosion protection null and void.
- No changes to the devices or components impairing their explosion protection are permitted.
- The device may only be fitted and used if it is in an undamaged, dry and clean state.

2.2 Warning notes

Warnings are sub-divided in these operating instructions according to the following scheme:

M WARNING

Type and source of the danger!

- Measures for avoiding the danger.

They are always identified by the signalling word "WARNING" and sometimes also have a symbol which is specific to the danger involved.

2.3 Hazardous Location Ratings and Applicable Standards

The explosion proof and dust-ignition proof enclosures are in compliance with the following standards:

UL 50	Enclosures for Electrical Equipment
UL 2062	Enclosures for Use in Hazardous (Classified) Locations
UL 1203	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
CSA C22.2-No. 25	Enclosures for Use in Class II Groups E, F and G Hazardous Locations
CSA C22.2-No. 30	Explosion-Proof Enclosures for Use in Class I Hazardous Locations Industrial Products

3 Application

The enclosures are used to build motor starters, control stations and terminal boxes. Furthermore they are suitable for measuring equipment and customer specific control units.

The enclosures are designed for use in Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1, Groups E, F & G and Class III hazardous (classified) locations as defined by the National Electrical Code (NFPA70) and the Canadian Electrical Code (CEC).

Covers with windows and O-Ring seals together with mounting plates and DIN rails are available to complete the series of enclosures.

For direct cable entry, flameproof cable glands (Div. 2 or Zone 1 only) or threaded entries for direct conduit connection can be applied. For cable installation suitable glands and cable need to be used.



⚠ WARNING

Only use the device for its intended purpose!

- Otherwise, the manufacturer's liability and warranty expire.
- Only use the device under the operating conditions described in the operating instructions.

4 Technical data

Certificate

Technical Data

Gas explosion protection Class I, Division 1, Groups A, B, C & D Class I, Zone 1, Group IIC

Dust explosion Class II, Division 1, Groups E, F & G protection Class III

Class I

c UL US

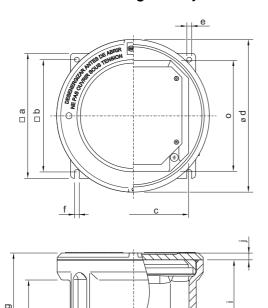
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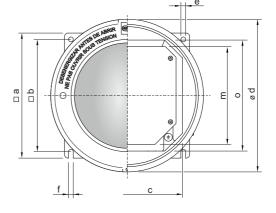
Type rating 3, 4, 4x, 7 and 9

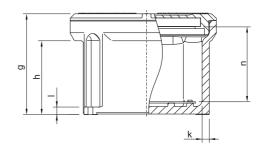
Enclosure material Aluminum, copper free (Marine Grade)



Dimension drawings - subject to alterations







Enclosure 8265/6.-000. without window

Enclosure 8265/6.-001. with window

	Dimens	sions in i	nch (mm	1)											
Туре	а	b	С	d	е	f	g	h	i	j	k	I	m	n	О
8265/61	4.92	4.33	4.29	5.91	0.23	0.23	5.20	3.21	3.60	0.51	side AB 0.31 side CD 0.51	0.41	2.11	3.24	3.90
	[125]	[110]	[109]	[150]	[5.8]	[5.8]	[132]	[81.5]	[91.5]	[13]	side AB [8] side CD [13]	[10.5]	[53.5]	[82.2]	[99]
8265/62	6.10	5.51	5.08	7.56	0.28	0.28	5.20	3.05	3.62	0.51	0.51	0.45	3.64	3.26	5.08
	[155]	[140]	[129]	[192]	[7]	[7]	[132]	[77.5]	[92]	[13]	[13]	[11.5)	[92.5]	[83]	[129]
8265/63	7.68	6.77	6.65	9.21	0.35	0.35	6.77	4.62	5.20	0.51	0.51	0.61	5.14	4.80	6.65
	[195]	[172]	[169]	[234]	[9]	[9]	[172]	[117.5]	[132]	[13]	[13]	[15.5]	[130.5]	[122]	[169]
8265/64	9.29	8.27	8.23	11.38	0.43	0.43	8.94	6.63	7.26	0.51	0.53	0.65	7.09	6.68	8.23
	[236]	[210]	[209]	[289]	[11]	[11]	[227]	[168.5]	[184.5]	[13]	[13.5]	[16.5]	[180]	[169.7]	[209]
8265/65	11.22	10.08	9.96	13.70	0.43	0.43	9.06	6.63	7.15	0.63	0.63	0.69	7.09	6.56	9.96
	[285]	[256]	[253]	[348]	[11]	[11]	[230]	[168.5]	[181.5]	[16]	[16]	[17.5]	[180]	[166.7]	[253]
8265/66	13.19	12.13	11.81	16.14	0.45	0.45	11.06	8.13	9.04	0.71	0.69	0.61	7.09	8.37	11.81
	[335]	[312]	[300]	[410]	[11.5]	[11.5]	[281]	[206.5]	[229.5]	[18]	[17.5]	[15.5]	[180]	[212.7]	[300]

5 Installation

⚠ WARNING



Danger from energised parts!

- Before any maintenance work commences, disconnect the device from the power supply.
- Secure the device against unauthorised activation.

↑ WARNING

Installation may only be performed by qualified personnel!

- ▶ Installation work may only be performed by authorized personnel suitably trained for this purpose.
- Follow all applicable national and local regulations.

≜WARNING



Use of cable glands without cable strain-reliefs!

- Explosion protection cannot be guaranteed any more if cable glands are installed without cable strain-reliefs in the vicinity of loosely laid cables and leads.
- Securely lay cabling and leads.
- ▶ If installation is to take place in areas with loosely laid cables, only use cable glands that are approved for this application.

MARNING



Danger through damaged threads!

- ▷ If threads are damaged, the necessary flame path for explosion protection is not guaranteed.
- ▶ Handle the cover with extreme care and fit it carefully to the enclosure.
- ▶ Replace a cover or enclosure with damaged threads immediately!



The enclosures are furnished with or without drilled and tapped conduit openings. Drilling and tapping of openings is subject to the limitations of maximum size and number of openings as well as spacings and removed area. Refer to section "Drilling and Tapping of Entries".

- All machining must be done prior to installation.
- Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control devices (Mounting dimensions: see section "Technical Data").
- Securely fasten enclosure to the mounting location, then attach into wiring system.
- Unsrew enclosure cover and remove it carefully, set it aside to prevent damage to the cover threads.
- Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. Attach the cover to the enclosure, tighten cover carefully and secure it with the Set Screw.
- Conduit sealing must be installed within 18 inches of the enclosure.
- Pour sealing compound into sealing fittings (as required) in accordance with the supplied Instructions as well as the NEC and the CEC.
- All entry holes have to be closed by close-up plugs, conduit or cable fittings with the same listing (Class, Division, Groups) then the enclosure.



Drilling and Tapping of Entries 6

The minimum center-to-center distance (P) of tapped entries must be in accordance with the table below.

∴ WARNING

- Additional spacing may be required if conduit fittings are located adjacent to each other.
- ▶ If reducers are used, the male thread of the reducer counts for spacing based on the thread size of the reducer, not the trade size of the conduit.

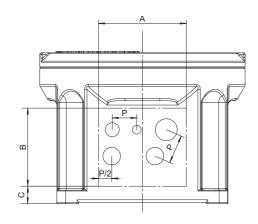
∴ WARNING

- Sealing fittings must be installed with access allowing the dams to be made and the sealing compound to be properly poured.
- ► To avoid interference of sealing fittings enlarge center-to-center distance (P) to account for fitting diameter.
- ▶ Recommended distance from the center of the entry to the edge of the entry area is P/2.

Metric or NPT	M10 x 1.5 M14 x 1.5 M15 x 1.5 M16 x 1.5	M20 x 1.5 1/2" NPT	M24 x 1.5 M25 x 1.5 3/4" NPT 3/4"-14 NPSM	M32 x 1.5 1" NPT	M33 x 1.5 M36 x 1.5 M40 x 1.5 1-1/4" NPT 1-1/4"-11.5 NPSM	M42 x 1.5 M48 x 1.5 M50 x 1.5 1-1/2" NPT	M56 x 1.5 M63 x 1.5 2" NPT	M75 x 1.5 2-1/2" NP
M10 x 1.5 M14 x 1.5 M15 x 1.5 M16 x 1.5	1.18 (30)							
M20 x 1.5 1/2" NPT	1.18 (30)	1.18 (30)						
M24 x 1.5 M25 x 1.5 3/4" NPT 3/4"-14 NPSM	1.38 (35)	1.38 (35)	1.57 (39.9)					
M32 x 1.5 1" NPT	1.49 (37.8)	1.49 (37.8	1.68 (42.7)	1.79 (45.5)				
M33 x 1.5 M36 x 1.5 M40 x 1.5 1-1/4" NPT 1-1/4"-11.5 NPSM	1.68 (42.7)	1.68 (42.7)	1.88 (47.7)	1.99 (50.5)	2.18 (55.4)			
M42 x 1.5 M48 x 1.5 M50 x 1.5 1-1/2" NPT	1.79 (45.5)	1.79 (45.5)	1.99 (50.5)	2.10 (53.3)	2.29 (58.2)	3.35 (85.1)		
M56 x 1.5 M63 x 1.5 2" NPT	2.12 (53.8)	2.12 (53.8)	2.31 (58.8)	2.43 (61.6)	2.62 (66.5)	2.73 (69.3)	3.06 (77.6)	
M75 x 1.5 2-1/2" NPT	3.38 (60.5)	3.38 (60.5)	2.58 (65.5)	2.69 (68.3)	2.88 (73.2)	2.99 (76)	3.32 (84.3)	3.58 (91)
M90 x 1.5 M105 x 1.5 3" NPT	2.99 (76)	2.99 (76)	3.19 (81)	3.29 (83.5)	3.53 (89.7)	3.66 (93)	4.13 (104.8)	4.37 (111)





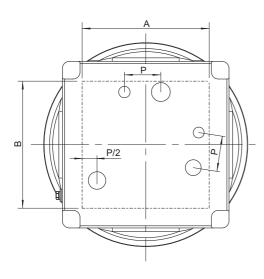


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Area for Body Entry Installation						
Enclosure Type	Length A in inch (mm)	Width B in inch (mm)	Height over mounting surface C in inch (mm)			
8265/61	2.20 (56)	2.20 (56)	0.86 (22)			
8265/62	3.94 (100)	1.89 (48)	0.95 (24)			
8265/63	3.94 (100)	3.50 (89)	0.95 (24)			
8265/64	5.51 (140)	5.35 (136)	1.02 (26)			
8265/65	6.29 (160)	5.11 (130)	1.10 (28)			
8265/66	8.31 (211)	6.58 (167)	1.26 (32)			

Maximal numbers of	threaded entries	at each side (NPT	/NPSM)			
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
1/2" NPT	2	4	9	18	12	39
3/4" NPT	1	3	6	16	9	28
3/4" - 14 NPSM	1	3	6	16	9	28
1" NPT	1	2	5	9	6	20
1" NPSM	1	2	5	9	6	20
1 - 1/4" NPT	1	2	3	6	4	12
1 - 1/4" NPSM		2	3	6	4	12
1 - 1/2" NPT		1	2	4	3	8
2" NPT			1	3	2	6
2 - 1/2" NPT					1	4
3" NPT					1	2

Maximal number of	of metric entries at ea	ach side				
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
M10 x 1.5; M14 x 1.5; M15 x 1.5; M16 x 1.5	2	3	8	16	18	48
M20 x 1.5	1	3	8	16	18	28
M24 x 1.5	1	2	4	9	9	28
M25 x 1.5	1	2	4	9	9	16
M32 x 1.5	1	2	3	6	8	11
M33 x 1.5	1	1	2	4	5	11
M36 x 1.5; M40 x 1.5		1	2	4	5	8
M42 x 1.5; M48 x 1.5			1	3	3	8
M50 x 1.5			1	3	3	5
M56 x 1.5			1	1	2	5
M63 x 1.5			1	1	2	3
M75 x 1.5			1	1	1	2
M90 x 1.5; M105 x 1.5					1	1



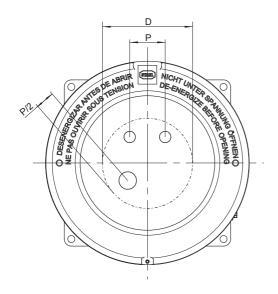
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Area for Floor Entry Installation					
Enclosure Type	Length A in inch (mm)	Width B in inch (mm)			
8265/61	3.15 (80)	1.77 (45)			
8265/62	4.61 (117)	2.44 (62)			
8265/63	6.02 (153)	3.46 (88)			
8265/64	7.13 (181)	5.59 (142)			
8265/65	7.87 (200)	3.15 (80)			
8265/66	10.71 (272)	5.87 (149)			



Maximal numbers of threaded entries in Floor (NPT/NPSM)						
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
1/2" NPT	2	2	3	5	5	5
3/4" NPT	1	2	3	5	5	5
3/4" - 14 NPSM	1	2	3	5	5	5
1" NPT	1	1	1	2	2	2
1" NPSM	1	1	1	2	2	2
1 - 1/4" NPT	1	1	1	2	2	2
1 - 1/4" NPSM		1	1	2	2	2
1 - 1/2" NPT		1	1	1	1	1
2" NPT			1	1	1	1
2 - 1/2" NPT				1	1	1
3" NPT						1

Maximal number of	Maximal number of metric entries in Floor					
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
M10 x 1.5; M14 x 1.5; M15 x 1.5; M16 x 1.5	2	2	3	4	4	5
M20 x 1.5; M24 x 1.5; M25 x 1.5	1	1	2	2	2	3
M32 x 1.5; M33 x 1.5; M36 x 1.5		1	1	2	2	3
M40 x 1.5; M42 x 1.5; M48 x 1.5; M50 x 1.5; M56 x 1.5; M63 x 1.5		1	1	1	1	1
M75 x 1.5						1



12806E

Area for Cover Entry Installation					
	Enclosure Type	Diameter D in inch (mm)			
	8265/61	2.95 (75)			
	8265/62	4.21 (107)			
	8265/63	5.56 (143)			
	8265/64	7.51 (191)			
	8265/65	8.26 (210)			
	8265/66	8.18 (208)			

Maximal numbers of threaded entries in Cover (NPT/NPSM)						
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
3/4" - 14 NPSM	1	2	3	5	8	8
1" NPSM					3	5
1 - 1/4" NPSM					3	5

Maximal number of metric entries in Cover						
Entry Size	8265/61	8265/62	8265/63	8265/64	8265/65	8265/66
M10 x 1.5; M14 x 1.5; M15 x 1.5; M16 x 1.5; M20 x 1.5	2	3	5	7	8	10
M24 x 1.5; M25 x 1.5	1	2	3	5	8	8

7 Grounding and Bounding

The internal grounding terminal shall be used as the primary equipment ground. The external terminal is only a supplemental bonding connection where local authorities permit or require such a connection.



8 Maintenance

⚠ WARNING



Danger from energised parts!

- Risk of severe injuries.
- Before any maintenance work commences, disconnect the device from the power supply.
- Secure the device against unauthorised activation.

⚠ WARNING

Risk due to unauthorised work performed on the device!

- There is a risk of injury and damage to equipment.
- Assembly, installation, commissioning, operating and maintenance work must only be performed by personnel who is both authorized and suitably trained for this purpose.

8.1 Regular maintenance work

- Consult the relevant regulations to determine the type and extent of inspections.
- Plan the intervals so that any defects in the equipment which may be anticipated are promptly detected.

To check as part of the maintenance schedule:

X Inspect device for visible damage.

8.2 Cleaning

X Clean with a cloth, brush, vacuum cleaner or similar items.

9 Accessories and Spare parts

Accessories and Spare Parts

Designation	Figure	Description	Art. no.	Weight
				kg
Mounting plate	11401E00	for enclosure size 1	208862	0.120
		for enclosure size 2	143484	0.189
		for enclosure size 3	143485	0.364
		for enclosure size 4	143486	0.744
		for enclosure size 5	143487	1.070
		for enclosure size 6	143488	1.700
O-Ring		Silicone, for enclosure size 1	211270	0.006
	11402E00	Silicone, for enclosure size 2	221717	0.008
		Silicone, for enclosure size 3	221718	0.010
		Silicone, for enclosure size 4	221719	0.012
		Silicone, for enclosure size 5	211271	0.020
		Silicone, for enclosure size 6	221720	0.026

Accessories and Spare Parts

Designation	Figure	Description	Art. no.	
				kg
Drain and breather valve		with thread ³ / ₈ "	107998	0.026
	15776E00	with thread ¹ / ₂ "	107999	0.090
Mounting rail	222	TS15 L 80 mm for enclosure size 1	212425	0.013
	14856E00	TS15 L 90 mm, diagonal for enclosure size 1	212338	0.010
	1	TS15 L 105 mm for enclosure size 2	143497	0.018
		TS15 L 133 mm for enclosure size 3	137902	0.020
		TS15 L 189 mm for enclosure size 4	137908	0.029
		TS15 L 218 mm for enclosure size 5	212427	0.030
	· 	TS15 L 280 mm for enclosure size 6	166448	0.049
		TS35 L 80 mm for enclosure size 1	212424	0.027
	99671E00	TS35 L 90 mm, diagonal for enclosure size 1	212339	0.025
	'	TS35 L 105 mm for enclosure size 2	143498	0.037
	ı	TS35 L 133 mm for enclosure size 3	137970	0.040
	I	TS35 L 189 mm for enclosure size 4	137976	0.060
	ı	TS35 L 218 mm for enclosure size 5	212426	0.033
	ı	TS35 L 280 mm for enclosure size 6	166449	0.100
		G32 L 133 mm for enclosure size 3	137939	0.020
	15760E00	G32 L 189 mm for enclosure size 4	137945	0.130
		G32 L 218 mm for enclosure size 5	212428	0.135
	1	G32 L 280 mm for enclosure size 6	166450	0.200



Accessories and Spare Parts

Designation	Figure	Description	Art. no.	Weight
				kg
Grub screw	05984E00	M5x16-A2 with hexagon socket and pointed tip	110216	0.001
Key	05986E00	to open the enclosure cover for size 1, 2, 3, 4 2 wrenches are required.	142059	0.060
Adjustable wrench	13135E00	to open the enclosure cover for size 5, 6 2 wrenches are required.	221927	0.214

⚠ WARNING

Use of non-approved accessories and spare parts.

- ▶ Use only original accessories and original spare parts manufactured by R. STAHL.