



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx PTB 14.0036

Issue No: 0

Certificate history:

Issue No. 0 (2017-08-08)

Status: **Current**

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Date of Issue: **2017-08-08**

Applicant: **ROSE Systemtechnik GmbH**
Erbeweg 13 - 15
32457 Porta Westfalica
Germany

Equipment: **Power distribution, switch and control gear assembly type 92. XX XX XX**
Optional accessory:

Type of Protection: **"nA", "nC", "d", "e", "ia", "mb" "op is"**

Marking:
Ex eb db mb ia [ia Ga] nA nC [op is] IIC T6, T5, T4 Gc
Ex tb IIC T85 °C, T100 °C, T135 °C Db

Approved for issue on behalf of the IECEx
Certification Body:


Dr. Ing. Detlev Markus

Position:

Head of Working Group "Explosion Protection in Energy Technology"

Signature:
(for printed version)

Date:


10.08.17

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





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Manufacturer: ROSE Systemtechnik GmbH
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Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[DE/PTB/ExTR14.0043/00](#)

Quality Assessment Report:

[DE/EPS/QAR17.0003/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

The power distribution, switch and control gear assembly, type 92. XX XX XX, consists of a sheet steel or stainless steel enclosure designed to Increased Safety "e" or Protection by Enclosure "tb" type of protection, which can be provided with flanges, if necessary. It is used to accommodate field bus distributors and terminals, and can be provided with actuator elements and pilot lamps, if necessary. 'Ex' cable glands are used for connection. All installed and attached components are tested and certified with a separate examination certificate.

Technical Data, Nomenclature and Notes for manufacturing and operation see Annex.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[CoCA 14.0036_00.pdf](#)



Applicant: ROSE Systemtechnik GmbH
Erbeweg 13-15
32457 Porta Westfalica
Germany

Electrical Apparatus: Power distribution, switch and control gear assembly
type 92. XX XX XX

Description

The power distribution, switch and control gear assembly, type 92. XX XX XX, consists of a sheet steel or stainless steel enclosure designed to Increased Safety "e" or Protection by Enclosure "tb" type of protection, which can be provided with flanges, if necessary. It is used to accommodate field bus distributors and terminals, and can be provided with actuator elements and pilot lamps, if necessary. 'Ex' cable glands are used for connection. All installed and attached components are tested and certified with a separate examination certificate.

Technical data:

- 55 °C to +90 °C: with gasket out of silicon
- 40 °C to +90 °C: with gasket out of HF
- 40 °C to +90 °C with PU-foam
- 20 °C to +90 °C with gasket out of CR
- 50 °C to 85 °C with window out of PC
- 20 °C to 90 °C with window out of glass

Degree of protection: IP66

Technical data	
Rated voltage:	Up to 1500 V
Rated current:	Max. to 400 A
Conductor size:	Max. 300 mm ²
Protective cross section	Max. 120 mm ²

Thread stud of the earth bolt compl. M6x60, M8x50, M10x60, M12x80



Enclosure standard Enclosure standard

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.10 10 06	100	100	61	21.	92.30 30 15	306	306	151
2.	92.15 10 06	100	150	61	22.	92.30 30 16	300	300	161
3.	92.20 10 06	100	200	61	23.	92.40 30 16	300	400	161
4.	92.15 15 08	150	150	81	24.	92.45 38 15	458	382	151
5.	92.16 50 15	500	162	151	25.	92.50 30 16	300	500	161
6.	92.30 15 08	150	300	78	26.	92.38 30 21	300	380	211
7.	92.30 15 13	150	230	131	27.	92.38 38 16	380	380	161
8.	92.40 15 08	150	400	81	28.	92.38 38 21	380	380	211
9.	92.20 20 08	200	200	81	29.	92.40 40 16	400	400	161
10.	92.20 20 12	200	200	121	30.	92.40 65 19	650	400	195
11.	92.30 20 08	200	300	81	31.	92.50 40 16	400	500	161
12.	92.30 20 12	200	300	121	32.	92.60 30 16	300	600	161
13.	92.30 30 19	300	300	195	33.	92.60 38 21	380	600	211
14.	92.30 38 19	380	300	195	34.	92.60 60 21	600	600	211
15.	92.30 38 21	380	300	211	35.	92.60 70 19	700	600	195
16.	92.38 38 19	380	380	195	36.	92.60 90 19	900	600	195
17.	92.40 20 12	200	400	121	37.	92.76 76 21	760	760	211
18.	92.40 20 16	200	400	161	38.	XX.XX XX XX	Max. 1200	Max. 2000	Max. 500
19.	92.60 20 12	200	600	121					
20.	92.30 30 12	300	300	121					

Enclosure cabinets

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.00 22 09	250	200	90	9.	92.00 22 15	250	200	150
2.	92.00 22 15	250	200	150	10.	92.00 32 09	250	300	90
3.	92.00 32 09	250	300	90	11.	92.00 32 15	250	300	150
4.	92.00 32 15	250	300	150	12.	92.00 33 16	300	300	165
5.	92.00 33 16	300	300	165	13.	92.00 34 21	300	380	215

6.	92.00 34 21	300	380	215	14.	92.00 43 16	300	400	165
7.	92.00 43 16	300	400	165	15.	92.00 64 21	380	600	215
8.	92.00 22 09	250	200	90	16.	92.00 99 99	Max. 1200	Max. 2000	Max. 500

Enclosure Flange

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.12 12 09	120	120	90	8.	92.76 50 21	760	500	210
2.	92.16 16 09	160	160	90	9.	92.76 50 25	760	500	250
3.	92.13 18 13	180	130	130	10.	92.92 61 25	920	610	250
4.	92.31 31 15	306	306	150	11.	92.92 61 30	920	610	300
5.	92.46 38 15	460	380	150	12.	92.92 61 35	920	610	350
6.	92.76 50 15	760	500	150	13.	XX.XX XX XX	Max. 1200	Max. 2000	Max. 500
7.	92.92 61 20	920	610	200					

Enclosure Flange 2. generation

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.XX 33 01	306	306	217	4.	92.XX 86 04	640	860	217
2.	92.XX 43 01	382	458	217	5.	92.XX 97 04	740	980	217
3.	92.XX 75 04	508	762	217	6.	92.XX 99 99	Max. 1200	Max. 2000	Max. 500

Enclosure ProtEx flange

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.XX 02 00	260	260	205	7.	92.XX 08 00	620	450	205
2.	92.XX 03 00	306	306	205	8.	92.XX 09 00	740	550	205
3.	92.XX 04 00	380	260	205	9.	92.XX 10 00	762	508	205
4.	92.XX 05 00	458	382	205	10.	92.XX 11 00	860	640	205
5.	92.XX 06 00	480	480	205	11.	92.XX 12 00	914	610	205
6.	92.XX 07 00	500	350	205	12.	92.XX 13 00	980	740	205

Structure Product number 92.04 XX XX ProtEx electropolished
 92.05 XX XX ProtEx electropolished / Returnflange
 92.06 XX XX ProtEx polished
 92.07 XX XX ProtEx polished/ Returnflange

Enclosure Captive Clamp Ex flange

No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]	No.	Enclosure Type	Height [mm]	Width [mm]	Depth [mm]
1.	92.08 06 01	306	306	205	7.	92.08 06 07	620	450	205
2.	92.08 06 02	350	480	205	8.	92.08 06 08	620	450	230
3.	92.08 06 03	400	600	205	9.	92.08 06 09	640	860	205
4.	92.08 06 04	450	382	205	10.	92.08 06 10	640	860	230
5.	92.08 06 05	458	382	205	11.	92.08 06 12	400	382	205
6.	92.08 06 06	508	762	205	12.	92.08 06 13	450	620	230

Max. Power Dissipation of Stainless Steel Enclosures

Enclosure Type	Max. Power Dissipation [Watt]	Enclosure Type	Max. Power Dissipation [Watt]
34.10 10 06	6.0	34.00 33 16	38.5
34.15 10 06	8.3	34.00 32 09	51.6
34.15 15 08	12.7	34.00 44 16	73.1
34.20 10 06	10.6	34.00 44 21	84.0
34.20 20 08	19.4	34.00 53 16	75.2
34.20 20 12	24.1	34.00 63 16	86.9
34.30 15 08	22.3	34.00 64 21	117.1
34.30 20 08	27.1	34.06 02 00	47.8
34.30 20 12	33.0	34.06 03 00	59.8
34.30 30 12	43.7	34.06 04 00	61.9
34.30 30 16	50.6	34.06 05 00	93.3
34.38 38 16	71.7	34.06 06 00	114.9
34.40 15 08	28.7	34.06 07 00	93.3
34.40 20 12	42.0	34.06 08 00	132.4
34.40 30 16	63.4	34.06 09 00	177.5
34.50 30 16	76.2	34.06 10 00	170.8
34.50 40 16	92.9	34.06 11 00	225.9
34.60 20 12	60.0	34.06 12 00	228.5
34.00 22 09	25.0	34.06.13.00	282.8
34.00 22 15	32.7		



The rated values are maximum values, the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. Further technical details have been specified in the test documents.

The composition of the symbol specifying the type of protection depends on the types of protection of the components used.

The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment.

Nomenclature

92.	**	**	**
1	2	3	4

- 1: Type, material sheet steel or stainless steel
- 2: Length or product line (see above)
- 3: Width or number depending on product line
- 4: Depth or number depending on product line

Additional Advices

The empty enclosure with a coating must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust.

Components attached or installed (terminal compartments, bushings, Ex-type cable glands, connectors) shall be of a technical standard that at least complies with the specifications on the cover sheet, and they shall have a separate examination certificate. The operating conditions specified in the component certificates must definitely be complied with, and the operating instructions must include a note to inform the operating company of this equipment. The method used for assessing the suitability of the used component must be documented in a verifiable manner in compliance with the QM system.

For repair of separately certified components, the EU-Type Examination for these components must be observed.

Equipment of the type of protection intrinsic safety "i" according to IEC 60079-11 is to be installed in such a way that the distances, creepage distances und clearances between intrinsically safe circuits and non-intrinsically safe circuits required according to EN 60079-14 are complied with.



When more than one intrinsically safe circuit is used, the rules for interconnection are to be observed.

Degree of protection IP66 will be safeguarded only when sealing and cable entry fittings are properly fitted. The manufacturer's instructions must be followed.

Installation of the components in the electrical apparatus shall be made such that the local temperatures will be within the operating temperature range.

Notes for manufacturing and operation

Each device needs to be evaluated concerning the max. allowed temperature limit according to the relevant temperature class and concerning the limiting temperature of the materials. This evaluation needs to be done within the engineering process and must be complemented by an additional temperature measurement in any case doubt. The admissible ambient temperature ranges of the built-in components may not be exceeded at the place of installation.