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 07.0006 Issue No: 4

Certificate history:
Issue No. 4 (2018-03-23)
Issue No. 3 (2012-02-29)
Issue No. 2 (2010-12-17)
Issue No. 1 (2010-08-04)
Issue No. 0 (2007-11-05)

Status: Current

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Date of Issue: 2018-03-23

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

Equipment: Connection and Junction Box and Control Box Type 35. XX XX XX and 36. XX XX XX

Optional accessory:

Type of Protection: Different

Marking: Ex db eb ia IIa[mb IIC T4...T5...T6 Gb
Ex tb IIIC T 85 °C...T 100 °C...T135 °C Db

Approved for issue on behalf of the IECEx Certification Body: Dr.-Ing. Detlev Markus

Position: Head of Section "Explosion Protection in Energy Technology"

Signature:
(for printed version)

Date: 10.04.18

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.

Certificate issued by:

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

PTB
Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

IECEx Certificate of Conformity

Certificate No: IECEx PTB 07.0060 Issue No: 4

Date of Issue: 2018-03-23

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

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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - 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 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
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/ExTR07.0060/04

Quality Assessment Report:

DE/EPS/QAR17.0003/03

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of equipment

The Connection and Junction Box and Control Box type 35 .XX.XX.XX und 36 .XX.XX.XX consists of enclosures out of sheet steel or

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Update of the state of standards IEC 60079-0:2018 (Ed. 7), IEC 60079-7:2015 (Ed. 5),

Annex:

Annex_Manufacturing_Locations_070060X-04.pdf

COCA_070060-04.pdf

Applicant: ROSE Systemtechnik GmbH
Erbeweg 13-15

List of Manufacturing Locations:

1. Rose Systemtechnik GmbH
   Erbeweg 13-15
   32457 Porta Westfalica
   Germany

2. Phoenix Mecano (India) Private Limited
   Plant - I & II, Pirangut Industrial Area, Post Ghotawade, Plot 288/389
   Village Bhare, Taluka Mulshi, Dist Pune – 412 115
   India

3. Phoenix Mecano (India) Private Limited
   Plant - III, GatNo 408, 410 & 412
   Village Urse, Taluka Maval, Talegaon Urse Road, Dist Pune - 410 506
   India

4. Phoenix Mecano S.E. Asia Pte. Ltd.
   35 Ubi Ave 3#04-01, Colorscan Building
   Singapore 408863
   Singapore

5. Phoenix Mecano Kecskemet KFT
   Istvan kiraly krt. 24
   6000 Keskemet
   Hungary

6. Phoenix Mecano Inc

   7330 Executive Way
   MD 21704 Frederick
   United States

7. PM Komponenten N. V.
   Karrewegstraat 124

8. PM Komponenten B. V.
   Havenstraat 100
   7005 AG Doetinchem
   Netherlands

9. Mecano Components Co. Ltd/012
   No. 1001, Jiaqian Road, Nanxiang, Jiading District
   Shanghai P.R.C. 201802
   China

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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

Electrical Apparatus: Connection and Junction Box and Control Box
Type 35.XX XX XX and 36.XX XX XX

Description

The Connection and Junction Box and Control Box type 35. XX XX XX and 36. XX XX XX consists of

Technical Data

Ambient temperature:

-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 +85 °C with gasket out of CR
-50 °C to +85 °C with window out of PC
-20 °C to +85 °C with window out of glass

Degree of protection: IP66

Rated voltage:	Up to 1500 V
Rated current:	Max. 500 A
Conductor size:	Max. 300 mm²
Protective cross section:	Max. 150 mm²

Nomenclature

XX.	**	**	**
1	2	3	4

1: Type, material Polyester
2: Length
3: Width
4: Depth

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100, 38116 Braunschweig, Germany
Postfach 33 45, 38023 Braunschweig, Germany

Enclosure standard and max. Power Dissipation of **Ex Stainless Steel Enclosure**:

Type reference:

Empty enclosure
34.XX XX XX Ex Stainless Steel Standard

Increased Safety
35.XX XX XX Ex Stainless Steel Standard

Intrinsic Safety / mixed assembled
36.XX XX XX Ex Stainless Steel Standard

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	XX.10 10 06	100	100	61	6
2	XX.15 10 06	100	150	61	8
3	XX.20 10 06	100	200	61	10
4	XX.15 15 08	150	150	81	12
5	XX.16 50 15	500	162	151	51
6	XX.30 15 08	150	300	78	22
7	XX.30 15 13	150	230	131	22
8	XX.40 15 08	150	400	81	28
9	XX.20 20 08	200	200	81	19
10	XX.20 20 12	200	200	121	24
11	XX.30 20 08	200	300	81	27
12	XX.30 20 12	200	300	121	33
13	XX.30 30 19	300	300	195	56
14	XX.30 38 19	380	300	195	67
15	XX.30 38 21	380	300	211	70
16	XX.38 38 19	380	380	195	79
17	XX.40 20 12	200	400	121	42
18	XX.40 20 16	200	400	161	46
19	XX.60 20 12	200	600	121	59
20	XX.30 30 12	300	300	121	43
21	XX.30 30 15	306	306	151	50
22	XX.30 30 16	300	300	161	50
23	XX.40 30 16	300	400	161	63
24	XX.45 38 15	458	382	151	81
25	XX.50 30 16	300	500	161	76
26	XX.38 30 21	300	380	211	69
27	XX.38 38 16	380	380	161	71

No.	Product Type			Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
28	XX.36	36	21	360	360	211	82
29	XX.40	40	16	400	400	161	77
30	XX.40	65	19	650	400	195	126
31	XX.50	40	16	400	500	161	92
32	XX.60	30	16	300	600	161	85
33	XX.60	38	21	380	600	211	115
34	XX.60	60	21	600	600	211	163
35	XX.60	70	19	700	600	195	179
36	XX.60	90	19	900	600	195	222
37	XX.76	76	21	760	760	238	250
38	XX.XX	XX	XX	max. 1200	max. 2000	max. 500	

Enclosure standard and max. Power Dissipation of **Ex Stainless Steel Cabinets**:

Type reference:

Empty enclosure
34.00 XX XX Ex Stainless Steel Cabinets

Increased Safety
35.00 XX XX Ex Stainless Steel Cabinets

Intrinsic Safety / mixed assembled
36.00 XX XX Ex Stainless Steel Cabinets

No.	Product Type			Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	34.XX	22	09	250	200	90	24
2	34.XX	22	15	250	200	150	32
3	34.XX	32	09	250	300	90	33
4	34.XX	32	15	250	300	150	42
5	34.XX	33	16	300	300	165	51
6	34.XX	34	21	300	380	215	70
7	34.XX	43	16	300	400	165	62
8	34.XX	52	09	250	500	90	50
9	34.XX	52	15	250	500	150	62
10	34.XX	53	16	300	500	165	74
11	34.XX	63	16	300	600	165	86
12	34.XX	44	16	380	380	165	72

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
13	34.XX 44 21	380	380	215	83
14	34.XX 64 21	380	600	215	116
15	34.XX 99 99	max. 1200	max. 2000	max. 500	

Enclosure standard and max. Power Dissipation of **Enclosure Flange 1. and 2. Generation**:

Type reference:

Empty enclosure
34.XX XX XX Ex Stainless Steel Flange 1. Generation
34.03 XX XX Ex Stainless Steel Flange 2. Generation

Increased Safety
35.00 XX XX Ex Stainless Steel Flange 1. Generation
35.03 XX XX Ex Stainless Steel Flange 2. Generation

Intrinsic Safety / mixed assembled
36.00 XX XX Ex Stainless Steel Flange 1. Generation
36.03 XX XX Ex Stainless Steel Flange 2. Generation

Stainless Steel Flange 1. Generation

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	XX.12 12 09	120	120	90	9
2	XX.16 16 09	160	160	90	14
3	XX.13 18 13	180	130	130	17
4	XX.31 31 15	306	306	150	50
5	XX.46 38 15	460	380	150	80
6	XX.76 50 15	760	500	150	151
7	XX.92 61 20	920	610	200	232
8	XX.76 50 21	760	500	210	174
9	XX.76 50 25	760	500	250	189

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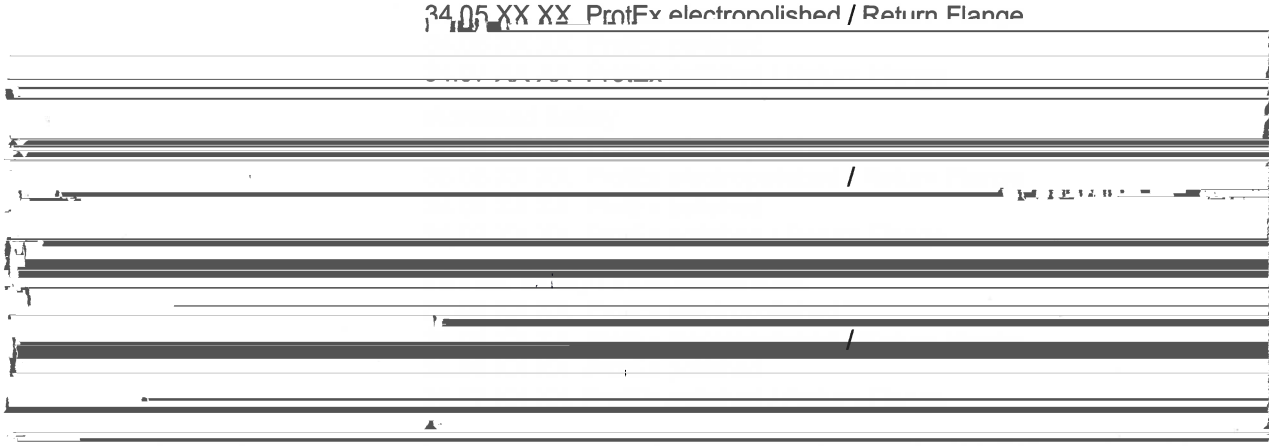
Ex Stainless Steel Flange 2. Generation

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	XX.XX 33 01	306	306	217	61
2	XX.XX 43 01	382	458	217	96
3	XX.XX 75 04	508	762	217	175
4	XX.XX 86 04	640	860	217	230
5	XX.XX 97 04	740	980	217	288
6	XX.XX 99 99	max. 1200	max. 2000	max. 500	

Enclosure standard and max. Power Dissipation of **ProtEx Stainless Steel Flange**:

Type reference:

Empty enclosure
34.04 XX XX ProtEx electropolished
34.05 XX XX ProtEx electropolished / Return Flange



34.07 XX XX ProtEx polished / Return Flange

Increased Safety
35.04 XX XX ProtEx electropolished
35.05 XX XX ProtEx electropolished Return Flange
34.06 XX XX ProtEx polished
34.07 XX XX ProtEx polished / Return Flange

Intrinsic Safety / mixed assembled
36.04 XX XX ProtEx electropolished
36.05 XX XX ProtEx electropolished Return Flange
36.06 XX XX ProtEx polished
36.07 XX XX ProtEx polished / Return Flange

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	XX.XX 02 00	260	260	205	47
2	XX.XX 03 00	306	306	205	59
3	XXXX 04 00	380	260	205	63

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Enclosure standard and max. Power Dissipation of **Enclosure Captive Clamp Ex flange**:

Type reference:

Empty enclosure
34.08 XX XX Captive Clamp

Increased Safety
35.08 XX XX Captive Clamp

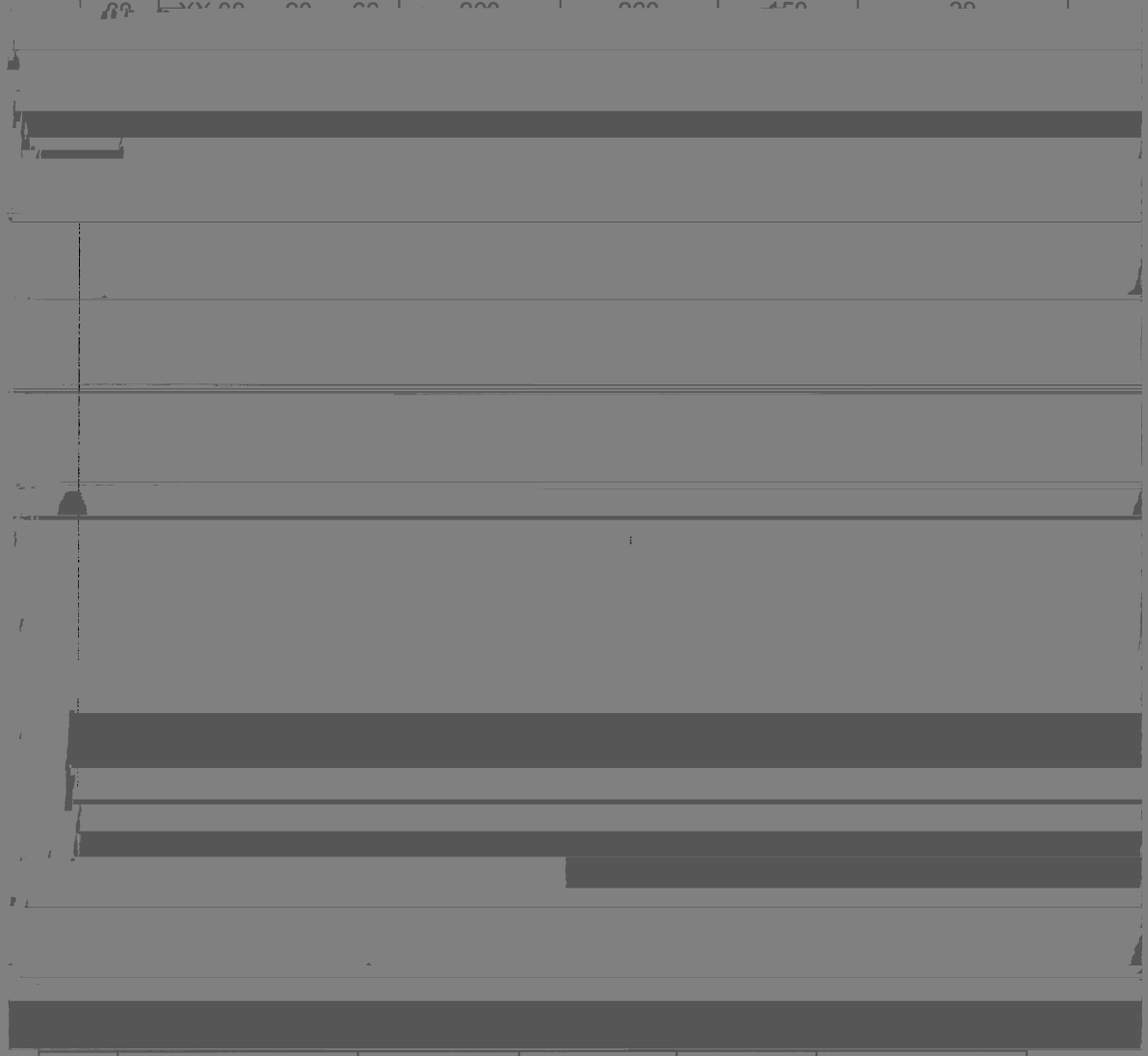
Intrinsic Safety / mixed assembled
36.08 XX XX Captive Clamp

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
1	XX.08 06 01	306	306	205	59
2	XX.08 06 02	350	480	205	90
3	XX.08 06 03	400	600	205	118
4	XX.08 06 04	450	382	205	93
5	XX.08 06 05	458	382	205	94
6	XX.08 06 06	508	762	205	170
7	XX.08 06 07	620	450	205	134

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
6	XX.03 90 29	560	400	227	120
7	XX.03 90 30	306	250	205	52
8	XX.00 90 29	300	380	217	70
9	XX.00 90 30	306	306	217	61
10	XX.00 90 31	485	382	217	101
11	XX.03 90 31	340	306	200	63
12	XX.03 90 32	458	382	200	93
13	XX.03 90 33	480	480	200	113
14	XX.03 90 38	360	380	210	79
15	XX.03 90 43	425	380	210	89
16	XX.03 90 44	354	262	227	64
17	XX.03 90 45	454	502	227	119
18	XX.03 90 49	442	458	217	107
19	XX.03 90 50	90	51	185	226

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
41	XX.03 91 00	300	300	167	51
42	XX.03 91 01	600	600	217	165
43	XX.90 90 51	500	1000	400	291
44	XX.00 90 48	380	380	217	84
45	XX.03 91 03	500	300	160	75
46	XX.03 91 04	306	306	210	60
47	XX.03 91 05	350	350	180	67
48	XX.03 91 06	200	200	180	30
49	XX.03 91 07	500	450	200	111
50	XX.03 90 99	380	380	217	84
51	XX.03 91 02	250	200	157	33
52	XX.00 90 46	600	600	300	194
53	XX.00 90 49	500	300	160	75
54	XX.00 90 50	300	300	160	50
55	XX.90 90 57	800	600	280	236
56	XX.00 90 61	1200	1000	300	495
57	XX.00 90 62	380	380	161	71
58	XX.00 90 63	500	400	161	92
59	XX.03 91 08	300	350	160	56
60	XX.03 91 09	300	400	160	62
61	XX.03 91 10	200	200	160	28
62	XX.03 91 11	360	360	150	63
63	XX.00 90 54	525	375	210	105
64	XX.00 90 55	415	265	210	70
65	XX.00 90 56	500	350	200	94
66	XX.00 90 57	300	265	160	46
67	XX.00 90 58	200	200	120	23
68	XX.03 91 12	237	117	91	16
69	XX.90 90 53	727	360	190	128
70	XX.00 90 59	300	450	217	79
71	XX.00 90 60	300	380	217	70

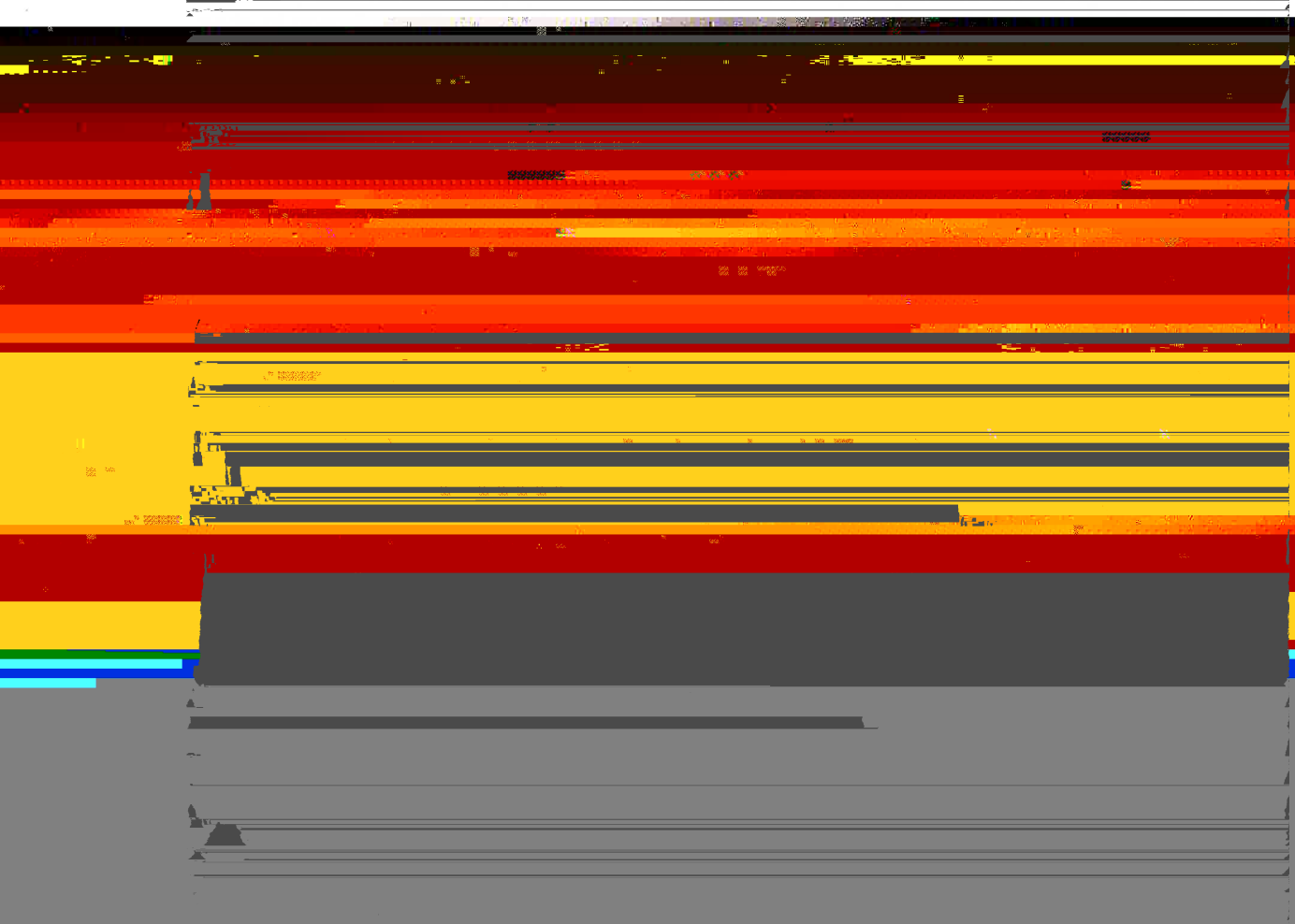
No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
76	XX.90 90 56	727	400	190	137
77	XX.03 90 75	600	380	217	120
78	XX.03 91 15	500	400	320	134
79	XX.00 90 65	400	400	300	109
80	XX.90 90 33	250	250	120	33
81	XX.90 90 42	120	120	80	9
82	XX.03 90 36	260	260	200	47



85	XX.03 90 72	380	380	210	82
86	XX.03 90 73	306	306	210	60
87	XX.03 90 74	1200	600	300	344
88	XX.03 90 76	1200	840	300	434
89	XX.03 90 77	1200	640	300	359
90	XX.90 90 39	600	400	210	122

No.	Product Type	Height [mm]	Width [mm]	Depth [mm]	Max. Power Dissipation [W] (dT 40 °K)
111	XX.03 90 80	306	306	217	61
112	XX.03 90 81	150	150	130	16
113	XX.03 90 95	760	600	300	234
114	XX.03 90 96	360	360	150	63
115	XX.03 90 97	360	360	190	72
116	XX.00 90 45	670	470	360	200

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



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.