

(1)

EC Type-Examination Certificate

(2) Devices and protective systems intended for use in hazardous areas - **Directive 94/9/EC**



(3) EC Type-Examination Certificate

TÜV 08 ATEX 7630 X

(4) Equipment: **Control devices and indicator lights of series Ex-Rxxxxxxxxx with housing Ex-EBG xxx.O x**

(5) Manufacturer: **Elan Schaltelemente GmbH & Co. KG**

(6) Address: **Im Ostpark 2, 35435 Wetztenberg**

(7) The design of this device and its different admissible models are defined in the appendix to this type-examination certificate.

(8) The TÜV CERT-Zertifizierungsstelle for ex-protected products of TÜV Rheinland Industrie Service GmbH, TÜV Rheinland Group, notified body No. 0035 in accordance with Article 9 of the directive of the Council of the European Communities of 23 March 1994 (94/9/EC), certifies the compliance with the essential safety and health requirements for the design and the construction of equipment and protective systems intended for use in hazardous areas acc. to Annex II of the directive.

The results of the examination are recorded in confidential Test Report No. 296/Ex630.00/08.

(9) The essential safety and health requirements are met through compliance with **EN 60079- 0: 2006; EN 60079- 11: 2007; EN 61241- 0 : 2006; EN 61241-1: 2005, EN 1127-1: 2007** with the exception of the requirements listed in item 18 of the annex.

(10) If the sign "X" is placed after the certificate number, it indicates that the device is subject to the special conditions for safe use in the appendix to this certificate.

(11) This EC Type-Examination Certificate relates only to the design and construction of the specified device in accordance with Directive 94/9/EC. Further requirements of this directive apply to the production and the supply of this device. These requirements are not covered by this certificate.

(12) The marking of the equipment must include the following:

II 2 G Ex Ib IIC T4

II 2 D Ex tD A21 IP65 T110°C

TÜV CERT-Zertifizierungsstelle für Explosionsschutz

Cologne, 21.11.08

Dipl. Ing. K. Weitingfeld

This EC type examination certificate is not valid without signature and stamp.
This EC type examination certificate may only be distributed without changes. Extracts and changes require the approval of TÜV CERT-Zertifizierungsstelle für Ex-Schutz-Produkte

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(13)

Appendix to

(14)

EC Type-Examination Certificate

TÜV 08 ATEX 7630 X

(15) Description of the Device

15.1 Article

Control devices and indicator lights of series Ex-Rxxxxxxx and housings Ex-EBG xxx.O as assembly. They include the following components:

Designation	Type
Marking plate	Ex-RZSO
Blanking plug	Ex-RB
Pushbutton	Ex-RDT xx
Pushbutton with membrane	Ex-RDM xx
Contact element	Ex-RF w
Light terminal block	Ex-RLDE ws24
Indicator light	Ex-RMLH xx
Illuminated pushbutton	Ex-RDL xx
Illuminated pushbutton with membrane	Ex-RDLM xx
Mounting flange	Ex-RLM
Emergency stop switch with latching function (also in combination with emergency stop sign type NDP-65)	Ex-RDRZ45 xx
Mushroom button (without latching function)	Ex-RDP40 xx
Key-operated selector switch	Ex-RSSyySzzz
Key-operated selector switch	Ex-RSSTyySzzz
Key-operated selector switch	Ex-RSTSyySzzz
Key-operated selector switch	Ex-RSTyySzzz
Selector switch	Ex-RWS yy.v
Selector switch	Ex-RWST yy.v
Selector switch	Ex-RWT yy.v
Selector switch	Ex-RWTS yy.v
Housing, 1 fitting hole	EX-EBG 311.O
Housing, 3 fitting holes	EX-EBG 633.O
Housing, 5 fitting holes	EX-EBG 665.O

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15.2 Description of the Devices

The control devices and indicator lights are installed into housings of type Ex-EBG xxx.O x.

15.3 Parameters

15.3.1 Technical Data

Ex-related technical data of the controls		
Ambient temperature T_{amb}	Blanking plug Pushbutton Illuminated pushbutton Indicator light Emergency stop switch with latching function Mushroom pushbutton (w/wo latching function) Key-operated selector switches (all types) Selector switches (all types)	- 25 °C ... + 55 °C - 25 °C ... + 55 °C - 25 °C ... + 55 °C - 25 °C ... + 55 °C - 25 °C ... + 55 °C - 25 °C ... + 55 °C 0 °C ... + 55 °C 0 °C ... + 55 °C
Protection type to IEC 60 529		IP 65
Proven impact energy (EN 60079-0 or EN 61241-0)	Blanking plug Pushbutton Illuminated pushbutton Indicator light Emergency stop switch with latching function Mushroom pushbutton (w/wo latching function) Key-operated selector switches (all types) Selector switches (all types)	7J 7J 4J 4J 4J 4J 4J 4J
UV exposure	Ex-RDL Ex-RDLM Ex-RMLH	Protection against permanent UV exposure must be ensured by the user

General Technical Data of Controls		
Fixation	With mounting flange max. torque	2 Nm

General Technical Data of Ex-EBGxxx.0 Housing		
Ambient temperature T_{amb}	Housing, incl. entries	- 20 °C ... + 55 °C
Protection type to IEC 60 529		IP 65
Proven impact energy (EN 60079-0 or EN 61241-0)	Housing body, incl. entries	7J

Ex-related Technical Data of Contact / Light terminal block		
Ambient temperature T_{amb}		- 25 °C ... + 55 °C
Number of elements	Contact element Light terminal block	2 max. (position 2 and 3) 1 max. (position 1)
Type of protection tD A		
Voltage U	Contact element Light terminal block Ex- RLDE	250 V 24 V +/- 10%
Current I	Contact element Light terminal block Ex- RLDE	5.0 A 30 mA
Rating P	Contact element Light terminal block Ex- RLDE	1500 W max. 0.9 W
Type of protection Ex-i		
U_i	Contact element Light terminal block Ex- RLDE	250 V 30 V
I_i	Contact element Light terminal block Ex- RLDE	3.3 A with Ex ib 5.0 A with Ex ic Not relevant (internal current limit 30 mA)
P_i	Light terminal block Ex- RLDE and contact element	Not relevant
C_i		Negligible
L_i		Negligible
Overvoltage category	To IEC 60664-1	Cat. III
Dielectric strength	To EN 60079 – 11 60079-11, para. 10.3	Reliable separation against earth

General Technical Data of Contact / Light terminal block		
Terminal cross-section	Single strand Finely-stranded ferrules with protective shroud	2 × (0.5 ... 2.5 mm ²) 2 × (0.5 ... 1.5 mm ²)
Torque of connecting screw		1 Nm max.

(16) **Test Report:** 296/Ex 630.00/08

(17) **Special Conditions for Safe Use**

- The user must ensure protection against permanent UV exposure when using certain controls.
- The presence of small dust particles inside the dust-tight IP 65 housing must be excluded.
- The information in the manual or on the technical data in this EC type examination certificate on maximum proven impact energy must be observed.
If certain controls are used, this device must be installed with mechanical protection.
- If the housing with the cable/line lead-ins is used, fixed cables or lines must be utilised.
- The types of the Ex-Rxxxxxxx program and the Ex-EBGxxx.O housing as well as the cable/line lead-ins have different admissible ambient temperatures.
The ambient temperature range of the particular assembly is derived from the range of the most critical single assemblies. Observe the operator's manual or the table in the annex related to the EC type examination.

18) **Essential Safety and Health Requirements**

Are covered by the standards mentioned above.

TÜV CERT-Zertifizierungsstelle

Cologne, 21.11.08



Dipl. Ing. K. Wettingfeld

1st Supplement
acc. to directive 94/9/EC, Appendix III, No 6
to the EC-Type Examination Certificate



TÜV 08 ATEX 7630 X

Device: Control devices and indicator lamps of the series Ex-Rxxxxxxxxx
as well as housing Ex-EBG xxx.O

Manufacturer: K.A. Schmersal GmbH & Co. KG

Address: Möddinghofe 30, D – 42279 Wuppertal,
Germany



Description of supplements and modifications:

Control devices and indicator lamps of the series Ex-Rxxxxxxxxx
as well as housing Ex-EBG xxx.O.

(15) The following modifications are valid for this 1st supplement

Standard basis EN 60079- 0: 2012, EN 60079- 11: 2012
EN 60079- 31: 2009

Code for type of protection

	II 2 G	Ex ib IIC T4 Gb
	II 2 D	Ex tb IIIC T110°C Db

This 1st supplement to the EC-Type-Examination Certificate without signature and official stamp shall not be valid. The certificate may be circulated only without alteration. Extracts or alterations are subject to approval by TÜV Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH
In case of dispute, the German text shall prevail

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Description

This certificate describes the assembly of the under TÜV 08 ATEX 7685 U certified explosion-proof components (command and pilot lights Ex-Rxxxxxxxxx and mounting enclosure type ex-EBG xxx.Ox) to one device.

The devices are designed for use in Category 2 EPL Gb and Db:

- Gas - hazardous areas of zone 1 and 2;
- Dust - hazardous areas of zone 21 and 22.

The assessment of the assembling based on the checklists which are mentioned in the test report ExTR 557/Ex 685.03/13.

The assembly of the components into a device was evaluated therein.

The content of 1st Supplement is:

- New Manufacturer's designation K.A. Schmersal GmbH & Co. KG (by fusion with the previous manufacturer ELAN Schaltelemente GmbH & Co).
- The components were evaluated based on the current standards, the marking was adjusted.
- The manual has been adapted.

All other parameters of equipment are unchanged.

Technical data

All other data unchanged.

(16) Test Report No. 557 / Ex 630.02 / 13

(17) Special conditions for safe use


The original certificate has to be observed.


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- (18) Basic Safety and Health Requirements
Covered by mentioned standards in the original certificate.

TÜV Rheinland Certification Body
for explosion protected equipment

Cologne, 4th July 2013


Dipl.-Ing. Klauspeter Graff



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