

(3)



Translation

(1) EC-Type Examination Certificate

(2) - **Directive 94/9/EC** -

Equipment and protective systems intended for use in potentially explosive atmospheres

DMT 03 ATEX E 029

(4) Equipment: Photoelectric Sensor Type * 92/3 * Ex

Manufacturer: Leuze electronic GmbH & Co.

(6) Address: D 73277 Owen-Teck

The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the test and assessment report BVS PP 03.2015 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

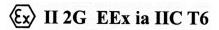
EN 50014:1997+A1-A2 General requirements EN 50020:1994 Intrinsic safety 'i'

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

This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.

Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

12) The marking of the equipment shall include the following:



Deutsche Montan Technologie GmbH

Essen, dated 24. January 2003

Signed: Jockers	Signed: Eickhoff		
DMT-Certification body	Head of special services unit		



(13) Appendix to

EC-Type Examination Certificate

DMT 03 ATEX E 029

5.1 Subject and type

Photoelectric Sensor	Type * 92/3	3 * Ex	
	FRK	-300 L	Diffuse reflection light scanners with background suppression
	PRK	L	Retro-reflective Photoelectric Sensor
	LS	E-L	Throughbeam Photoelectric Sensor
	LS	SE-L	Throughbeam Photoelectric Sensor

15.2 Description

The Photoelectric Sensor Type * 92/3 * Ex comprises a light alloy enclosure containing printed circuit boards with electronic components. The intrinsically safe supply- and signal circuit is connected to a plug.

15.3 Parameters

15.3. Supply and signal circuits

Voltage	U_{i}	DC	13	V
Current	Ii		40	mΑ
Power	$\mathbf{P_i}$		90	mW
Effective internal capacitance	Ci	≤	70	nF
Effective internal inductance	•	≤	200	μH
Directive internal management				•

5.3.2 Optical signal

Optical signal		
Wave length		680 nm to 880 nm
Radiated power	≤	$1,1 \text{ mW/mm}^2$
Light pulse duration	≤	21 μ s
Pulse rate	≤	3,5 ms.

- 15.3.3 Ambient temperature range $-20^{\circ}\text{C} \le T_a \le +50^{\circ}\text{C}$
- 16) Test and assessment report
 BVS PP 03.2015 EG, as of 24.01.2003
- 7) Special conditions for safe use

None



Head of special services unit

We confirm the correctness of the translation from the German original. In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 13.03.2003 BVS-Scha/Ar E 0260/03

Deutsche Montan Technologie GmbH