


## Translation

# (1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 11 ATEX E 177**
- (4) Equipment: **Circular connector series M23 RL45 Ex-i type 7R\*\*\*087\*0**
- (5) Manufacturer: **HUMMEL AG**
- (6) Address: **79211 Denzlingen  
Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of DEKRA EXAM 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 11.2277 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2009    General requirements**  
**EN 60079-11:2007    Intrinsic Safety 'i'**  
**EN 50303:2000    Group I, Category M1**
- (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 appendix to this certificate.
- (11) 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:

 **I M1 Ex ia I Ma**  
**II 1G Ex ia IIC T4 Ga**

DEKRA EXAM GmbH  
Bochum, dated 25.01.2012

Signed: Dr. Eickhoff

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Certification body

Signed: U. Hauke

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Special services unit



(13) Appendix to

(14) **EC-Type Examination Certificate**  
**BVS 11 ATEX E 177**

(15) 15.1 Subject and type

Circular connector series M23 RL45 Ex-i type 7R\*\*\*087\*0

1<sup>st</sup> and 2<sup>nd</sup> asterisk in the type designation: Mounting form

10 = Cable connector

45 = Panel connector, sold in variant, flange, real panel installation

47 = Panel connector with cable relief, flange, real panel installation

50 = Panel connector, central attachment, real panel installation

3<sup>rd</sup> asterisk in the type designation: Cable clamping

4 = 4-7 mm cable diameter

5 = 6-12 mm cable diameter

6 = 11-17 mm cable diameter

4<sup>th</sup> asterisk in the type designation: Enclosure material and ambient temperature range

0 = Enclosure: Brass nickel plated, sealing element: NBR,  $-20\text{ °C} \leq T_a \leq +80\text{ °C}$

4 = Enclosure: Stainless steel AISI 316 L, sealing element: FKM (Viton),  $-20\text{ °C} \leq T_a \leq +105\text{ °C}$

### 15.2 Description

The circular connector series M23 RJ45 Ex-i type 7R\*\*\*087\*0 is used for connecting RJ45-connections safely in hazardous areas and it consists of one plug in part, one socket part and customized freely RJ45-contacts. Respective electric cables are not part of the circular connector series.

The circular connector series can carry only one intrinsically safe circuit.

The circular connector series is a simple apparatus of group II and is used as an accessory in intrinsically safe systems of group I. It consists only of components which do not affect intrinsic safety.

### 15.3 Parameters

#### Electrical parameters

Max. input voltage	U <sub>i</sub>	DC	30	V
Max. input current	i <sub>i</sub>		1.5	A
Max. internal capacitance	C <sub>i</sub>	negligible		
Max. internal inductance	L <sub>i</sub>	negligible		

#### Ambient temperature range

Type 7R\*\*\*08700

$-20\text{ °C} \leq T_a \leq +80\text{ °C}$

Type 7R\*\*\*08740

$-20\text{ °C} \leq T_a \leq +105\text{ °C}$

(16) Test and assessment report

BVS PP 11.2277 EG as of 25.01.2012

(17) Special conditions for safe use

None



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.

DEKRA EXAM GmbH  
44809 Bochum, 25.01.2012  
BVS-Ste/Her A 20110726



Certification body



Special services unit