

# (1) EU-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number

**TÜV 18 ATEX 8173**

Issue: 00

- (4) Equipment: **HIQuad Module F 6221**
- (5) Manufacturer: **HIMA Paul Hildebrandt GmbH**
- (6) Address: **Albert-Bassermann-Str. 28  
68782 Brühl, Germany**
- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26<sup>th</sup> February 2014, certifies this product which 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 atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex8173.00/18

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

**EN 60079-0: 2012+A11:2013**

**EN 60079-11: 2012**

- (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.
- (11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:



**II (1) GD [Ex ia Ga] IIC  
[Ex ia Da] IIIC**

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2018-08-21

Dipl.-Ing. Andreas Maschke



This EU-Type Examination Certificate without signature and stamp shall not be valid.  
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the  
TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln  
Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

(13) Annex

(14) **EU Type Examination Certificate**  
**TÜV 18 ATEX 8173** Issue: 00

(15) Description of equipment

15.1 Equipment and type:

HIQuad Module F 6221

15.2 Description / Details of Change

General product information

The field of application of the F 6221 module is the operation with intrinsically safe Ex ia current transmitters (0/4 to 20mA) which can be supplied by intrinsically safe supplies [Ex ia], e.g. unit F 3325. The F 6221 module is an associated apparatus and contains the measuring device. It can be used to measure up to eight signal inputs (I1 to I8). For monitoring the transmitter supply voltages, another eight signal inputs (TC1 to TC8) are available.

Technical Data

Ambient temperature:  $T_a = 0^{\circ}\text{C} \dots + 60^{\circ}\text{C}$

Supply circuit UB1:

$U_n = 24\text{VDC} (-15\%, +20\%), U_{B1_{\max}} = 30\text{V}$

$U_m = 40\text{V}$

(terminal X1 z2(L+), d2(L-))

Supply circuit UB2:

$U_n = 4.5 \dots 5.5\text{VDC}, U_{B2_{\max}} = 6.0\text{V}$

$U_m = 40\text{V}$

(terminal X1 z6, d6(V<sub>DD</sub>), z30, d30(GND))

Intrinsically safe values for the measuring and monitoring channels,  
type of protection [Ex ia Ga] IIC/IIB  
or [Ex ia Da] IIIC/IIIB

This EU Type Examination Certificate without signature and official stamp shall not be valid.  
This certificate may be circulated without alteration. Extracts or alterations are subject to approval by:  
Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH

measuring	monitoring
+I 1-8:	TC 1-8:
U <sub>o</sub> : 5.7 V	U <sub>o</sub> : 5.7 V
I <sub>o</sub> : 2 mA	I <sub>o</sub> : 0.5 mA
P <sub>o</sub> : 2.9 mW	P <sub>o</sub> : 0.72 mW
(terminal z2, z4, ..., z16)	(z18, z20, ..., z32)

Maximum allowed external capacitance or inductance:

Ex ia / Ex ib	single circuit		parallel* <sup>1</sup> circuit	
	IIC	IIB/IIIC/IIIB	IIC	IIB/IIIC/IIIB
L <sub>o</sub>	1H	1H	1H	1H
C <sub>o</sub>	50 µF	1000 µF	50 µF	1000 µF

Maximum allowed external capacitance *and* inductance (mixed consideration):

Ex ia / Ex ib	single circuit		parallel* <sup>1</sup> circuit	
	IIC	IIB/IIIC/IIIB	IIC	IIB/IIIC/IIIB
L <sub>o</sub>	5 mH	5 mH	5 mH	5 mH
C <sub>o</sub>	1.5 µF	7.5 µF	1.5 µF	7.5 µF

Note \*1: parallel operation of two measuring and two monitoring channels

(16) Test-Report No. 557/Ex8173.00/18

(17) Special Conditions for safe use

None

(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2018-08-21

  
 Dipl.-Ing. Andreas Maschke



This EU Type Examination Certificate without signature and official stamp shall not be valid.  
 This certificate may be circulated without alteration. Extracts or alterations are subject to approval by:  
 Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH