



Translation

EC-Type Examination Certificate

(1)

(2)

- Directive 94/9/EC -
Equipment and protective systems intended for use
in potentially explosive atmospheres

(3)

BVS 03 ATEX E 406 X

(4)

Equipment: Gas measuring transmitter type P3S and type P3U

(5)

Manufacturer: Dräger Safety AG & Co. KGaA

(6)

Address: D - 23560 Lübeck

(7)

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 EXAM BBG Prüf- und Zertifizier 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 03.2298 EG.

(9)

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

EN 50014:1997+A1-A2	General requirements
EN 50020:2002	Intrinsic safety 'i'
EN 50021:1999	Type of Protection 'n'
EN 50284:1999	Equipment Group II Category 1G

(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 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:



II 1G EEx ia IIC T4/T6



II 3G EEx nL IIC T4/T6

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, dated 15. January 2004

Signed: Jockers

Signed: Eickhoff

Certification body

Special services unit

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This certificate may only be reproduced in its entirety and without change

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(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen)

(13)

Appendix to

(14)

EC-Type Examination Certificate

BVS 03 ATEX E 406 X

(15) 15.1 Subject and type

Gas measuring transmitter type P3S and type P3U

15.2 Description

The Gas measuring transmitter type P3S and P3U are intended for gas detection under atmospheric conditions in fixed installations. The device is housed in a plastic enclosure (surface resistance $< 10^9 \Omega$). Supply of the electronics and signalling is accomplished by a 2-, 3- or 4-wire connection. For all cases, supply and signalling occur from one common intrinsically safe circuit. Both device types may be equipped with a "Duct Extension". This enables direct mounting of the device to a duct, due to the protruding sensor.

P3S:

The device may be equipped with an integral LC-Display for displaying the measurement value. The front of the device provides a circular bayonet cover, which may be opened for maintenance work (calibration). Behind the opening, control elements and 2 contacts are located. The contacts allow connection of an I.S. certified voltage meter, which enables reading of the measurement value in case no internal display is provided.

P3U:

The device may be equipped with an integral LC-Display for displaying the measurement value and a membrane keypad. For measurements at remote locations the P3U Remote Adapter may be plugged in, instead of the electrochemical sensor. The cable of the P3U Remote Adapter, which may be up to 100 m in length, connects to the P3U Remote Sensor which now accepts the electrochemical sensor.

15.3 Parameters

15.3.1 Gas measuring transmitter type P3S

15.3.1.1 Supply-/signal circuit Connection via terminals X1/1 and X1/2

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		300	mA
Maximum input power	P_i		700	mW
Maximum internal capacitance	C_i		negligible	
Maximum internal inductance	L_i		50	μ H

15.3.1.2 Measuring circuit, for calibration only Connection via 2 contact areas

Maximum output voltage	U_o	DC	7,6	V
Maximum output current	I_o		1	mA
Maximum external capacitance	C_o		2,5	μ F
Maximum external inductance	L_o		10	mH
Maximum input voltage	U_i	DC	10,4	V
Maximum internal capacitance	C_i		negligible	
Maximum internal inductance	L_i		negligible	

15.3.2 Gas measuring transmitter type P3U

Supply-/signal circuit

Connection via terminals X7/1 - X7/4 or X8/1 - X8/4 (looped through)

Maximum input voltage	U_i	DC	30	V
Maximum input current	I_i		300	mA
Maximum input power	P_i		700	mW
Maximum internal capacitance	C_i		5	nF
Maximum internal inductance	L_i		50	μ H

15.3.3 Ambient temperature range

II 1G EEx ia IIC T6	- 40 °C up to + 40 °C
II 1G EEx ia IIC T4	- 40 °C up to + 65 °C
II 3G EEx nL IIC T6	- 25 °C up to + 40 °C
II 3G EEx nL IIC T4	- 25 °C up to + 65 °C

(16) Test and assessment report
BVS PP 03.2298 EG as of 15.01.2004

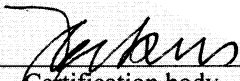
(17) Special conditions for safe use

- 17.1 For use in Category 3 areas, the Gas measuring transmitter has been tested according to EN 50021, part 26, Mechanical strength test. The display window has been tested as a light transmitting part and has passed the test at 1 Joule at -25 °C, low risk for mechanical damage.
- 17.2 The measurement function for explosion protection is not the subject of this EC-Type Examination Certificate.

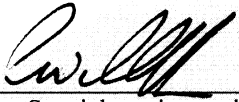
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 15.01.2004
BVS-Rip/Mi A 20030560

EXAM BBG Prüf- und Zertifizier GmbH



Certification body



Special services unit