## IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

[1]	EC-TYPE	EXAMINATION	CERTIFICATE
-----	---------	-------------	-------------

according to Directive 94/9/EC, Annex III

## (Translation)

- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number:

IBExU13ATEX1043 X

- [4] Equipment: Pressure transmitter Type DMP33X i Ex, LMP 331 i Ex und LPM 30X i Ex
- [5] Manufacturer: BD SENSORS s.r.o.
- [6] Address: Hradistska 817 687 08 Buchlovice CZECH REPUBLIC
- [7] The design of the equipment mentioned under [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the equipment mentioned under [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive. The text repeat IP 12 2 003 of 24 April 2012.

The test results are recorded in the test report IB-13-3-003 of 24 April 2013.

- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2009, EN 60079-11:2007 and EN 50303:2000.
- [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 under [17] in the schedule to this EC-Type Examination Certificate.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.
- [12] The marking of the equipment mentioned in [4] shall include the following:

## 🖾 l M1 Ex ia l Ma

IBExU Institut für Sicherheitstechnik G           Fuchsmühlenweg 7         -         09599 Fi           2 +49 (0) 3731 3805-0         -         -         +49 (0)	reiberg, Germany	
Authorised for certifications Explosion	protection Institut für Sicherheits-	Freiberg, 24 April 2013
By order	E technik N	Certificates without signature and
Wanyon	GmbH *Renn-Nr. 063	seal are not valid. Certificates may only be duplicated completely and unchanged. In
(Dr. Wagner)	- Seal-	case of dispute, the German text shall prevail.
Schedule	(ID no. 0637)	
Schedule		

# IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

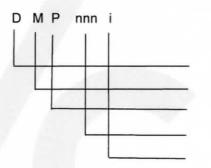
## [13] Schedule

## [14] to the EC-TYPE EXAMINATION CERTIFICATE IBExU13ATEX1043 X

#### [15] Description of equipment

The Pressure transmitters type DMP33X i Ex, LMP 331 i Ex und LPM 30X i Ex are different pressure measurement devices or level probes in stainless steel enclosure with different pressure ports. As measuring cell and evaluation electronics serve separately approved electronic modules. The devices are intended for use in potentially hazardous areas, where Category M1 devices are required. They are supplied by an intrinsically safe power supply of the Category "ia".

Type code:



- D pressure measurement devices; L level probe
- M transmitter
- P stainless steel cell
- nnn design
- i precision

#### Type extent:

Name	Туре	Electronic- module	Measurement cell	Conversion electronics
DMP 331 I	DMU	ELMO- PRE	DSP 4XX / ELI 20 = DSP 4XX X	ELI 21
DMP 333 I				
LMP 331 I				
LMP 307 I	LP			
LMP 308 I				

#### **Technical Data**

supply electric circuit in type of protection	n Intrinsic Saf	fety Ex ia I
(supply + and -)	Ui	28 V DC
	li	93 mA
	Pi	660 mW
effective inner capacity	Ci	negligible
effective inner inductivity	Li	negligible

plus line inductivities 1 µH/m and line capacities 200 pF/m (cable supplied by the manufacturer)

The supply connections have an inner capacity of max. 27 nF to the housing.

Ambient temperature range

-20 °C to +65 °C

#### [16] Test report

The test results are explained in detail in the test report IB-13-3-003. The test documents are part of the test report and listed there.

#### Summary of the test results:

The Pressure transmitters type DMP33X i Ex, LMP 331 i Ex and LPM 30X i Ex fulfil the requirements of type of protection Intrinsic Safety ,ia' for an electrical equipment of the Equipment Group I, Category M1.

#### [17] Special conditions

- The equipment designed with connector has to be installed in such a way that the degree of
  protection IP 54 is always kept.
- The safety and assembly instructions contained in the operating instruction and the ambient temperature range -20 °C ≤ T<sub>a</sub> ≤ +65 °C have to be taken into account.
- The device may be operated in explosive atmospheres which require equipment of Category 1 only when there are atmospheric conditions (temperature of -20 °C to +60 °C, pressure of 0.8 bar to 1.1 bar).

#### [18] Essential Health and Safety Requirements

Confirmed by compliance with standards (see [9]).

By order

(Dr. Wagner)

IBEVI 113

Freiberg, 24 April 2013