



- (1) **EU-Type Examination Certificate**
- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**
- (3) Certificate number: **SEV 11 ATEX 0129**
- (4) Product: Pressure transmitter Types see page 2
- (5) Manufacturer: Baumer Electric AG
- (6) Address: Hummelstrasse 17, 8501 Frauenfeld, Switzerland
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no 21CH-00418OR03.X07
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:
- EN IEC 60079-0:2018**
EN 60079-11:2012
EN 60079-26:2015
- Except in respect of those requirements listed at item 18 of the schedule.
- (10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:



See page 6

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Munira Gamma
Product Certification



(13)

Appendix

(14)

EU-Type Examination Certificate no. SEV 11 ATEX 0129

(15) **Description of product**

Types: PBMN xxx, PBMH xxx

All PBMN/PBMH pressure transmitters are designed so that a sensor element converts the physical quantity pressure into an electrical quantity. The sensor element is contained in a metal pressure connection or metal enclosure. The signal generated by the sensor element is converted into a process signal of 4-20 mA by the integrated electronics. The electronics are silicone encapsulated and protected by a metal enclosure. Industrial connectors or cable versions and a field housing are available as an output connection.

This product series is intended for use in numerous areas including industry, energy supply and water treatment as well as vehicle construction and shipbuilding, where potentially explosive dust atmospheres make the use of these pressure transmitters necessary.

The pressure transmitters must be connected via a Zener barrier with the indicated characteristic values and under the specified ambient and mounting conditions.

Classification of installation and use:	Fixed
Ingress protection:	IP6x

Input and supply circuits with type of protection intrinsic safety Ex ia IIC

Only for connection to a certified intrinsically safe circuit

Maximum values:

$U_i \leq 30 \text{ V}$

$I_i \leq 100 \text{ mA}$

$P_i \leq 750 \text{ mW}$

$C_i = 58 \text{ nF}$ (effective internal capacitance)

$L_i = 0.22 \text{ }\mu\text{H}$ (effective internal inductance)



Remarks

1. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx without cooling section with all connection types (vertically or horizontally mounted) for EPL Ga/Gb is shown in the following table:

Temperature class	T4	T6
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	-40 ... +70
highest ambient temperature at pressure connection (°C)	-40 ... +115	-40 ... +75

2. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section without field housing (mounted horizontally) for EPL Ga/Gb can be found in the table below:

Temperature class	T3		T3
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	or	-40 ... +70
highest ambient temperature at pressure connection (°C)	-40 ... +160		-40 ... +200

3. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section without field housing (vertically mounted) for EPL Ga/Gb can be found in the table below:

Temperature class	T3		T3
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	or	-40 ... +45
highest ambient temperature at pressure connection (°C)	-40 ... +130		-40 ... +200



4. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section without field housing (mounted vertically or horizontally) for EPL Ga/Gb can be found in the table below:

Temperature class	T4	T6
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	-40 ... +70
highest ambient temperature at pressure connection (°C)	-40 ... +130	-40 ... +80

5. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section and field housing (mounted horizontally) for EPL Ga/Gb can be found in the following table:

Temperature class	T3		T3
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	or	-40 ... +75
highest ambient temperature at pressure connection (°C)	-40 ... +170		-40 ... +200

6. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section and field housing (mounted vertically) for EPL Ga/Gb can be found in the following table:

Temperature class	T3
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85
highest ambient temperature at pressure connection (°C)	-40 ... +150

7. Assignment between the maximum permissible ambient temperature in the area of the electronics enclosure, medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx with cooling section and field housing (mounted vertically or horizontally) for EPL Ga/Gb can be found in the table below:

Temperature class	T4	T6
highest ambient temperature at enclosure part with electronics (°C)	-40 ... +85	-40 ... +70
highest ambient temperature at pressure connection (°C)	-40 ... +130	-40 ... +80


8. The pressure transmitters PBMN xxx or PBMH xxx can be installed in the boundary wall that separates the area with Category 1 (EPL Ga) - requirements (Zone 0) from the area with Category 2 (EPL Gb) - requirements (Zone 1) separates. The process connection must be sufficiently sealed according to EN 60079-26, Section 4.6, e.g. by complying with protection class IP67 according to EN 60529. The measuring cell may only be used for combustible substances for which the membranes of the measuring cells are sufficiently chemically and corrosion resistant.
9. Attention! For applications as category 1 (EPL Ga) group IIC equipment, dangerous electrostatic charges on the surface of the protective cap and along the cable sheath must be avoided (e.g. due to rapid filling and emptying of containers or other mechanical friction processes).


Note on the marking: Observe the operating instructions.


10. Assignment between the maximum permissible ambient or medium temperature and temperature class for the pressure transmitter PBMN xxx or PBMH xxx pressure transmitter for EPL Da is shown in the following table:

Surface temperature	T ₂₀₀ 107 °C
highest ambient temperature (°C)	-40 ... +70

Marking:

- For type PBMN xxx or PBMH xxx for version with M12 connector or with field housing
 -  II 1G Ex ia IIC T4/T6 Ga (for pressure transmitters without cooling neck)
 II 1G Ex ia IIC T3/T4/T6 Ga (for pressure transmitters with cooling neck)

- PBMN xxx or PBMH xxx for version with DIN connector;
 -  II 1/2G Ex ia IIC T4/T6 Ga/Gb (for pressure transmitters without cooling neck)
 II 1/2G Ex ia IIC T3/T4/T6 Ga/Gb (for pressure transmitters with cooling neck)

- PBMN xxx or PBMH xxx all versions
 -  II 1D Ex ia IIIC T₂₀₀107 °C Da

(16) **Special conditions for safe use:**

None

(17) **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

(18) **Drawings and Documents**

See test report "Manufacturer's Documents"

