

LVL-M3

Vibration Limit Switch

ATEX:

II 1/2 G Ex db IIC T6...T1 Ga/Gb

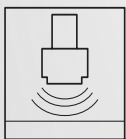
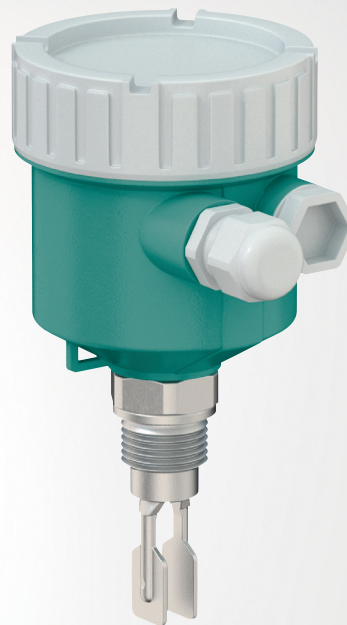
II 2 G Ex db IIC T6...T1 Gb

IECEX:

Ex db IIC T6...T1 Ga/Gb

Ex db IIC T6...T1 Gb

Temperature Tables



With regard to the supply of products, the current issue of the following document is applicable:
The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

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1 Associated Documentation

The corresponding datasheets, manuals, instruction manuals, declarations of conformity, EUtype examination certificates, certificates, and control drawings if applicable are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

This document does not substitute the instruction manual.

For full information on the product, refer to the instruction manual and further documentation on the Internet at www.pepperl-fuchs.com.

This document is an integral part of the following documents:

- Manual: DOCT-8106
- Brief instructions: DOCT-8109
- Instruction manual: DOCT-8390

For specific device information such as the year of construction, scan the QR code on the device. As an alternative, enter the serial number in the serial number search at www.pepperl-fuchs.com.

2 Supplementary Documentation

Information for explosion protection:

The information can be found on the Internet at www.pepperl-fuchs.com.

3 Manufacturer's Certificates

EU Declaration of Conformity

Declaration number: DOC-7442

EU Type-Examination Certificate

Certificate number: CSANe 23ATEX1157X

List of applied standards: see EU Declaration of Conformity

IEC Declaration of Conformity

Certificate number: IECEx CSAE 23.0044X

List of applied standards: see IECEx certificate



Note

Further information is available on the product detail page of the devices on the internet at www.pepperl-fuchs.com.

Enter the order designation in the search field → Select the appropriate product → Open the product detail page → Open the **Approvals+Certificates** tab.

4 Manufacturer Address

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Lilienthalstraße 200, 68307 Mannheim, Germany
Internet: www.pepperl-fuchs.com

5 Device Versions

| Device type | Basic specifications | Optional specifications |
|-------------|----------------------|-------------------------|
| LVL-M3 | -XXXXXX-XXXXXX-XX | +XX |

The X-marked letters of the type code are placeholders for versions of the device.

The following specifications reproduce an extract from the product structure and are used to assign.

Basic specifications

| Option | Type of probe |
|--------|--------------------|
| A | Compact version |
| B | Short tube version |
| C | Tube extension |

| Option | Sensor length, material |
|--------|---|
| B | Compact version, 316L |
| D | Short tube version, 316L |
| F | Tube extension, length L in mm, 316L, Ra < 3.2 µm/126 µinch |
| H | Tube extension, length L in inch, 316L, Ra < 3.2 µm/126 µinch |

| Option | Housing, material |
|--------|--------------------------------------|
| A | Single compartment, aluminum, coated |

| Option | Electrical connection |
|----------------|---|
| F | Thread M20, IP66/68, NEMA type 4X/6P |
| G ¹ | Thread G1/2, IP66/68, NEMA type 4X/6P |
| I | Thread NPT3/4, IP66/68, NEMA type 4X/6P |

¹ Reduction M20x1.5 to G1/2 enclosed

| Option | Electrical output |
|--------|--|
| E | FEL42, 3-wire PNP, 10 V DC to 55 V DC |
| N | FEL48, 2-wire NAMUR |
| W | FEL44, relay DPDT, 19 V AC to 253 V AC/19 V DC to 55 V DC, contact 253 V/6 A |

| Option | Approval |
|--------|---|
| E3 | ATEX/IEC II 1/2G, 2G Ex db IIC T6 Ga/Gb |

Additional options

| Option | Accessory enclosed |
|--------|-----------------------------------|
| WP | Weather protection cover, plastic |

6 Safety Instructions: Installation

Continuous service temperature of the connecting cable/cable gland/cable entry:

- Basic specification, feature **Electrical output**, option **E**: $\geq T_{amb} + 35 \text{ K}$
- Basic specification, feature **Electrical output**, option **N**: $\geq T_{amb} + 20 \text{ K}$
- Basic specification, feature **Electrical output**, option **W**: $\geq T_{amb} + 40 \text{ K}$

7 Temperature Tables

General notes

Optional specification, feature **Accessories enclosed**, option **WP**



Note

When using the weather protection cover: Reduce the values T_{amb} of P1, P2, P3 by 16 K.

Description notes



Note

Unless otherwise indicated, the positions always refer to the basic specification.

- 1st column: basic specification, feature **Electrical output**, option **E, N, W**
- 2nd column: maximum load current
- 3rd column: temperature classes T6 (85 °C) to T1 (450 °C)
- Column P1 to P5: position (temperature value) on the axes of the derating
 - T_{amb} : ambient temperature in °C
 - T_p : process temperature in °C

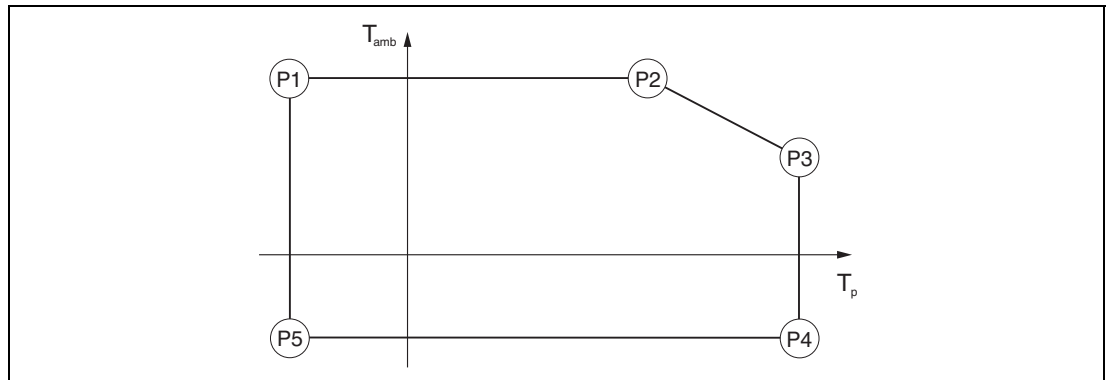


Figure 1

Zone 0, Zone 1

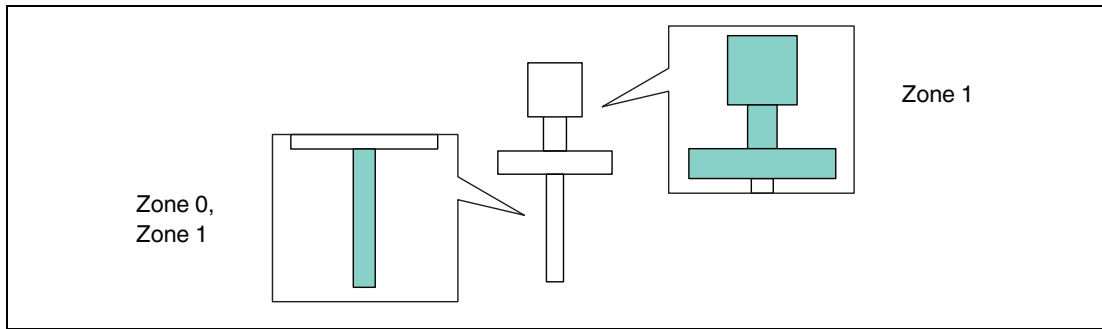


Figure 2

Basic specification, feature Electrical output

| Option E | | | | | | | | | | | | |
|----------|--------|---------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| | 350 mA | | P1 | | P2 | | P3 | | P4 | | P5 | |
| | | | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} |
| | | T6 | -40 | 70 | 70 | 70 | 75 | 70 | 75 | -40 | -40 | -40 |
| | | T5 | -40 | 70 | 70 | 70 | 90 | 70 | 90 | -40 | -40 | -40 |
| | | T4 | -40 | 70 | 70 | 70 | 125 | 55 | 125 | -40 | -40 | -40 |
| | | T3...T1 | -40 | 70 | 70 | 70 | 150 | 45 | 150 | -40 | -40 | -40 |

Table 1

| Option N | | | | | | | | | | | | |
|----------|--|---------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| | | | P1 | | P2 | | P3 | | P4 | | P5 | |
| | | | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} |
| | | T6 | -40 | 70 | 70 | 70 | 75 | 70 | 75 | -40 | -40 | -40 |
| | | T5 | -40 | 70 | 70 | 70 | 90 | 70 | 90 | -40 | -40 | -40 |
| | | T4 | -40 | 70 | 70 | 70 | 125 | 70 | 125 | -40 | -40 | -40 |
| | | T3...T1 | -40 | 70 | 70 | 70 | 150 | 70 | 150 | -40 | -40 | -40 |

Table 2

| Option W | | | | | | | | | | | | |
|----------|-----|---------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| | 2 A | | P1 | | P2 | | P3 | | P4 | | P5 | |
| | | | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} | T_p | T_{amb} |
| | | T6 | -40 | 70 | 70 | 70 | 75 | 40 | 75 | -40 | -40 | -40 |
| | | T5 | -40 | 70 | 70 | 70 | 90 | 55 | 90 | -40 | -40 | -40 |
| | | T4 | -40 | 70 | 70 | 70 | 125 | 47 | 125 | -40 | -40 | -40 |
| | | T3...T1 | -40 | 70 | 70 | 70 | 150 | 38 | 150 | -40 | -40 | -40 |

Table 3

8 Connection Data

Basic specification, feature Electrical output

| Option | Power supply circuit | Output |
|--------|---|--|
| E | U = 10 to 55 V DC P _{max} < 0.5 W | I _{max} = 350 mA |
| N | U = 4 to 8.2 V DC | NAMUR, I _{max} = 3.8 mA |
| W | U = 19 to 253 V AC, 50/60 Hz or 19 to 55 V DC P _{max} < 25 VA or < 1.3 W | 2 potential free changeover contacts, 2 A, Ex d |

Table 4

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
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- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
- Displays and Signal Processing
- Connectivity

Pepperl+Fuchs Quality

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