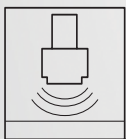
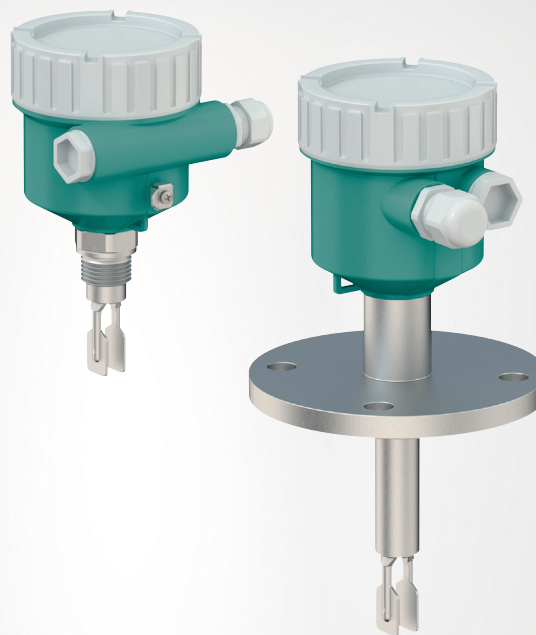


LVL-M4

Vibration Limit Switch

Control Drawing IS

Temperature Tables



Your automation, our passion.

 **PEPPERL+FUCHS**

With regard to the supply of products, the current issue of the following document is applicable:
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Worldwide

Pepperl+Fuchs Group

Lilienthalstr. 200

68307 Mannheim

Germany

Phone: +49 621 776 - 0

E-mail: info@de.pepperl-fuchs.com

North American Headquarters

Pepperl+Fuchs Inc.

1600 Enterprise Parkway

Twinsburg, Ohio 44087

USA

Phone: +1 330 425-3555

E-mail: sales@us.pepperl-fuchs.com

Asia Headquarters

Pepperl+Fuchs Pte. Ltd.

P+F Building

18 Ayer Rajah Crescent

Singapore 139942

Phone: +65 6779-9091

E-mail: sales@sg.pepperl-fuchs.com

<https://www.pepperl-fuchs.com>

1 Associated Documentation

The corresponding datasheets, manuals, instruction manuals, declarations of conformity, EU type 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: DOCT-8107, DOCT-8111, DOCT-8486.

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

CSA C/US certificate

Certificate number: CSA C/US 80140625

The certificate 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

Pepperl+Fuchs Group
Lilienthalstraße 200, 68307 Mannheim, Germany

Internet: www.pepperl-fuchs.com

5 Device Versions

Device type	Basic specifications	Optional specifications
LVL-M4	-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	Housing, material
A	Single compartment, aluminum, coated
D	Dual compartment, L-shape, aluminum, coated
G	Single compartment, 316L, cast
P	Single compartment, plastic

Option	Electrical connection
A	Gland M20, plastic, IP66/68, NEMA type 4X/6P
B ¹	Gland M20, brass nickel plated, IP66/68, NEMA type 4X/6P
C ²	Gland M20, 316L, IP66/68, NEMA type 4X/6P
F	Thread M20, IP66/68, NEMA type 4X/6P
H ³	Thread NPT1/2, IP66/68, NEMA type 4X/6P
I ⁴	Thread NPT3/4, IP66/68, NEMA type 4X/6P
M ⁴	Plug M12, IP66/67, NEMA type 4X

¹ Only in connection with feature **Housing, material**, option **A, D**

² Only in connection with feature **Housing, material**, option **A, G**

³ Only in connection with feature **Housing, material**, option **P**

⁴ Only in connection with feature **Housing, material**, option **A, D, G**

Option	Application, temperature
A	Process: max. 150 °C/302 °F, max. 64 bar
B	Process: max. 150 °C/302 °F, max. 100 bar

Option	Electrical output
M	FEL68, 2-wire NAMUR with test button

Option	Approval
Cl ¹	CSA C/US IS Cl. I, II, III Div. 1 Gr. A-G, Cl. I Zone 0, AEx/Ex ia IIC T6

¹ Class II, II, Div. 1: Only in connection with feature **Housing, material**, option **A, D, G**

Optional specifications

Option	Test, certificate, declaration
U1 ¹	Ambient temperature -50 °C/-58 °F

¹ Only in connection with feature **Housing, material**, option **A, D, G** and feature **Electrical connection**, option **B, C, F, I**

Option	Accessory mounted
VB ¹	Bluetooth module VU121 for NAMUR output

¹ Only in connection with feature **Housing, material**, option **A, D, P**

Option	Accessory enclosed
ST	Test magnet
WP ¹	Weather protection cover, plastic
WS ²	Weather protection cover, 316L

¹ Only in connection with feature **Housing, material**, option **A, G**

² Only in connection with feature **Housing, material**, option **D**

6 Temperature Tables

Optional specification, feature **Test, certificate, declaration**, option **U1**



Note

Lower limit of the ambient temperature for explosion protection changes to -50 °C.

General notes

Zone 0, Zone 1; Class I, Div. 1

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.

Class II, III, Div. 1

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



Note

When using the weather protection cover: Reduce the values T_{amb} by 16 K.

Description notes



Note

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

Zone 0, Zone 1; Class I, Div. 1

- 1st column: basic specification, feature **Application, temperature**, option **A, B**
- 2nd 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

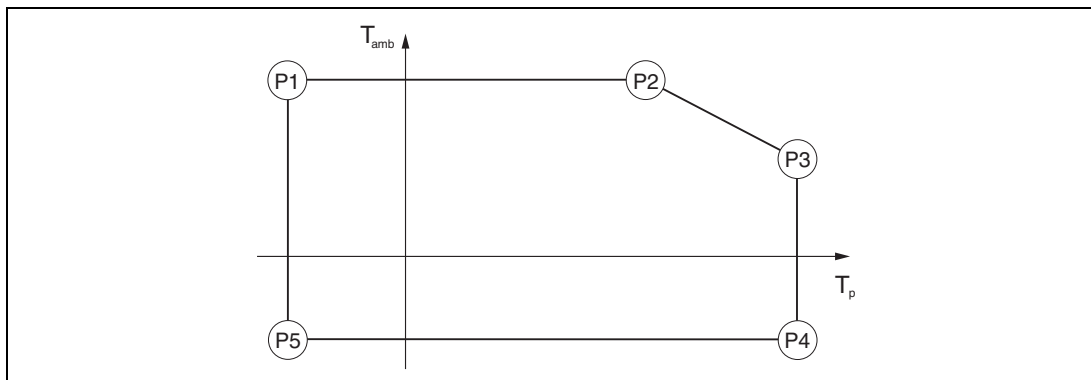


Figure 1

Class II, III, Div. 1

- 1st column: basic specification, feature **Application, temperature**, option **A, B**
- 2nd column: Maximum permissible temperature in °C
- 3rd column: Maximum surface temperature in °C

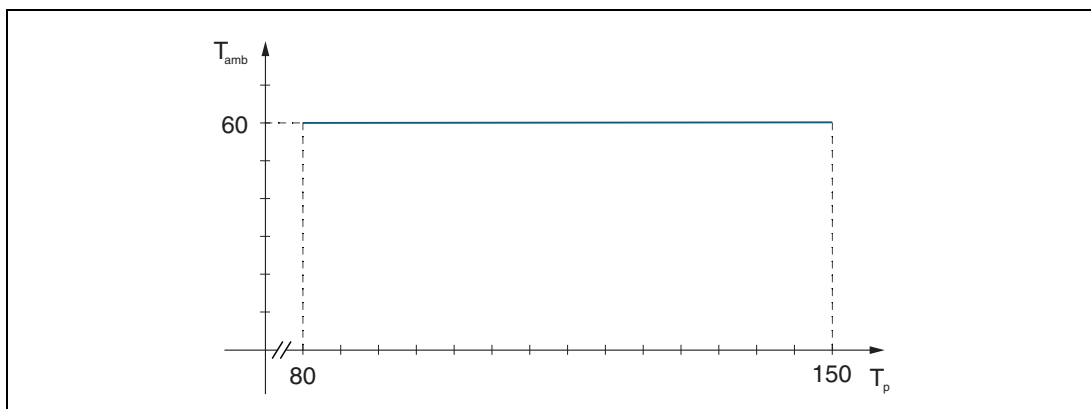


Figure 2

T_{amb} Ambient temperature in °C

T_p Process temperature in °C

Zone 0, Zone 1, Class I, Div. 1

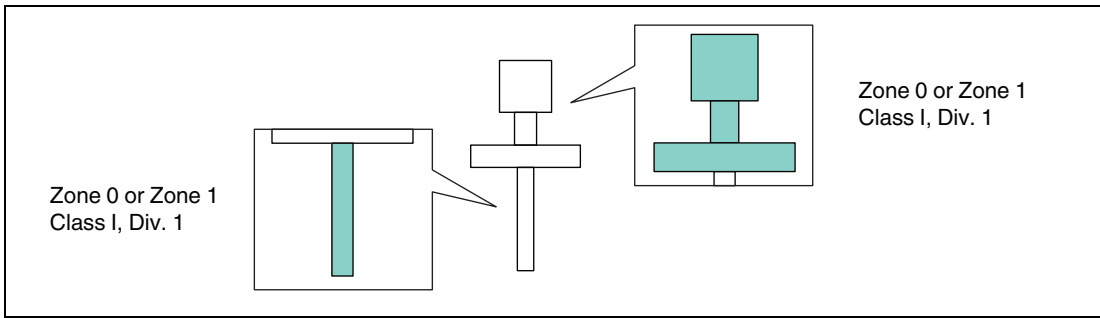


Figure 3

Basic specification, feature Application, temperature

Option A, B		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	-50	67 65 ¹	67	67 65 ¹	75	60	75	0 ² -40 -50 ³	-50	0 ² -40 -50 ³
	T5	-50	70 65 ¹	70	70 65 ¹	90	60	90		-50	
	T4 ⁴	-50	70 65 ¹	70	70 65 ¹	125	60	125		-50	
	T3 ⁴	-50	70 65 ¹	70	70 65 ¹	150	60	150		-50	

- ¹ Only in connection with optional specification, feature **Accessory mounted**, option **VB**
- ² In connection with basic specification, feature **Housing, material**, option **P**: Standard ambient temperature range: 0 to +70 °C
- ³ Only in connection with optional specification, feature **Test, certificate, declaration**, option **U1**
- ⁴ In connection with optional specification, feature **Accessory mounted**, option **VB**: The temperature class changes to T4.

Table 1

Class II, III, Div. 1

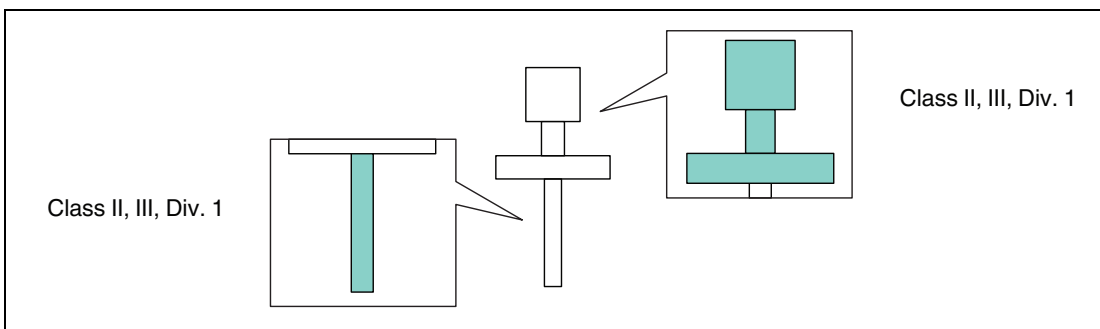


Figure 4

Basic specification, feature Application, temperature

Option A, B		
	$T_{amb} = 60$	T95 to 165 ($T = T_p + 15 K$)
	$T_p = 80$ to 150	

Table 2

2023-01

7 Connection Data

Optional specification, feature **Accessory mounted**, option **VB**

When using the Bluetooth[®] module: No changes to the connection values.

Associated intrinsically safe power supply unit with max. electrical specifications below the characteristic values of the electronic inserts

Basic specification, feature Electrical output

Option	Power supply circuit
M	U_i (or V_{max}) = 16 V I_i (or I_{max}) = 52 mA P_i = 170 mW L_i = 0 C_i = 30 nF

Table 3

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® Fieldbus
- Remote I/O Systems
- Electrical Ex Equipment
- Purge and Pressurization
- Industrial HMI
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

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

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