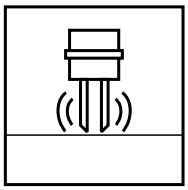
Vibrating Limit Switch LVL

LVL-A2/A0



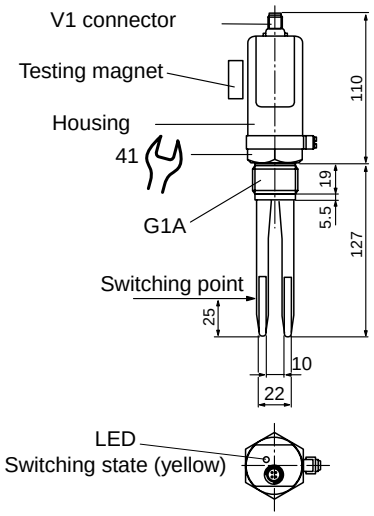
Features

- Vibration limit switch for liquids
- Compact housing and extended version
- Polished version for the food industry
- ECTFE (Halar)-version for aggressive liquids
- Stainless steel housing for rough environmental conditions
- Function test with testing magnet in mounted position.

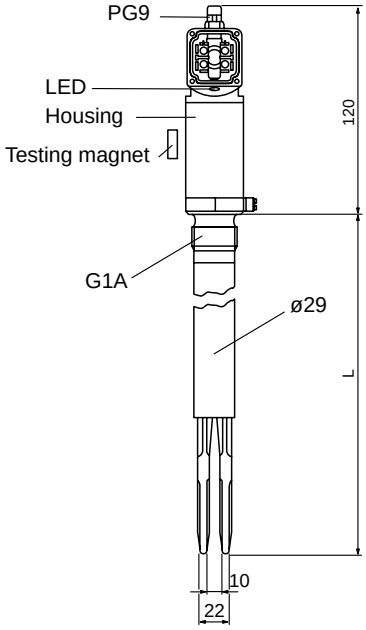
Function test with the testing magnet

- Put the testing magnet to the shown location. The state of the output will be the same as with a covered vibration fork.

Dimensions



Compact version
LVL1□□□-V1



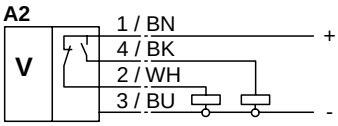
Extended version
LVL2□□□-PG

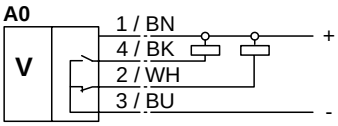
Please specify the length (L) if you order an extended version.
The testing magnet has to be ordered separately (accessory).
For a V1-connection - the necessary accessory is a V1 cable connection box (see accessories).

Function principle

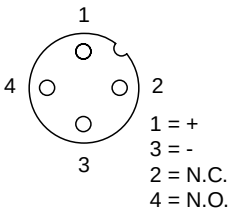
The vibration fork is actuated piezoelectrically. It is vibrating with its resonance frequency in air. Liquids getting into contact with the fork are changing this frequency. This change is evaluated electronically and produces the switching signal.

Electrical connection

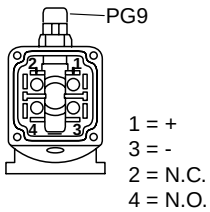




Plug connector V1



Terminal compartment connection



Date of Issue 16.08.2000

Technical data

Approvals/Certifications	Z.65-11.171 (Wasserhaushaltsgesetz WHG §19)
Information about approvals and certifications can be found at www.pepperl-fuchs.com.	13376-98HH (Germanischer Lloyd)
Supply	
Operating voltage	DC 18 V ... 30 V, protected from reverse polarity
Operating current	< 40 mA
Protection class	III
Output	4-wire technology
LVL□□-□□□-A2-V1	pnp
LVL□□-□□□-A0-V1	npn
Current	≤ < 200 mA, short circuit-proof/overloadable
Short-circuit current	≤ 1.5 A
Function test	Performed with test magnet (accessories) on mounted device. Sequential circuits can be proved (like PLCs or control systems) without demounting the device and without media contact.
Switching delay	
when covering	approx. 0.5 s
when uncovering	approx. 0.5 s
Indicators	
Supply	LED, green
Switching state	LED, yellow
Environmental conditions	
Ambient temperature	-20 °C ... +70 °C
Process conditions	
Temperature	-40 °C ... +150 °C
Pressure	≤ 40 bar
Density ρ	≥ 0.6 g/cm^3
Viscosity	max. 10 000 mPa s
Protection class acc. to IEC 60529	IP67

Key to model numbers/ordering code

Vibracon LVL-A2/A0

Measuring range
- **1** Compact version
- **2** Extended version, rod length 170 ... 3000 mm

Surface of fork
- **S** Stainless steel (1.4581)
- **O** Polished stainless steel (1.4581)
- **H** ECTFE (Halar coated)(in combination with process connection F*and A*)
- **C** Hasteloy C (2.4610) (in combination with process connection G3, N3, FC)

Process connection
- **G 3** G1A thread
- **N 3** 1" NPT thread
- **S 1** Thread for food and beverage industry
- **M 4** Milk pipe DN40, DIN 11851
- **T 2** Triclamp 2"
- **F 1** Flange DN50 PN40
- **F C** Flange DN50 PN40 (Hastelloy C plated)
- **A 2** Flange ANSI 2", 150PSI
- **A C** Flange ANSI 2", 150PSI (Hastelloy C plated)
- **- -** other process connections

Material/surface process connection
- **S** Stainless steel (1.4571)
- **O** Polished stainless steel
- **H** ECTFE (Halar coated)(in combination with process connection F*and A*)
- **C** Hasteloy C (2.4610) (in combination with process connection G3, N3, FC)

Material housing
- **/** Plastic (PBT), with V1 connection
- **S** Stainless steel (1.4581), with V1 connection or terminal compartment connection PG9

Electrical output
- **A 2** 4-wire pnp (N.O. and N.C.)
- **A 0** 4-wire npn (N.O. and N.C.)

Specialities
- **V 1** Plug connection
- **P G** Terminal compartment connection PG9

Approvals
- **W** Approval WHG
- **G** Approval GL (only for stainless steel housing and plug connector V1)

L	V	L			-					-			-					

Vibrating Limit Switch LVL-A2/A0

Conventional versions

Compact version LVL1

- **LVL1S-G3S-A2-V1**
  fork: stainless steel
  housing: plastic
- **LVL1O-G3OS-A2-V1**
  fork: polished stainless steel
  housing: stainless steel

Extended version LVL2

- **LVL2S-G3S-A2-V1**
  fork: stainless steel
  housing: plastic
- **LVL2O-G3OS-A2-V1**
  fork: polished stainless steel
  housing: stainless steel

1" NPT-version

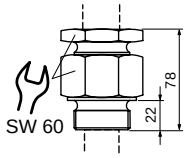
- all types are available with 1" NPT threadtype LVL□□-N3□-A2-V1

Flange version with Halar-coating

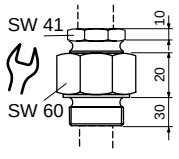
- **LVL1H-F1H-A2-V1**
  compact version
- **LVL2H-F1H-A2-V1**
  extended version

Accessories

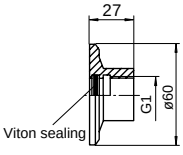
- V1-G, cable connection box, straight
- V1-G-2M-PVC, cable connection box, straight, with 2 m cable
- V1-W, cable connection box, 90° angled
- V1-W-2M-PVC, cable connection box, 90° angled, with 2 m cable
- LVL-Z15, test magnet
- LVL2-Z41, sliding bushing G1½A, stainless steel 1.4571 (for unpressurised operation)
- LVL2-Z49, sliding bushing G1½A, PVC (for unpressurised operation)
- LVL-Z61, welding bushing for vessels G1, Viton sealing



Sliding bushing G1½A LVL2-Z41, stainless steel



Sliding bushing G1½A LVL2-Z49, PVC



Welding bushing LVL-Z61

Note

- This device may be used with any sequential circuit, if this circuit complies with the connection values of the switching element.

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