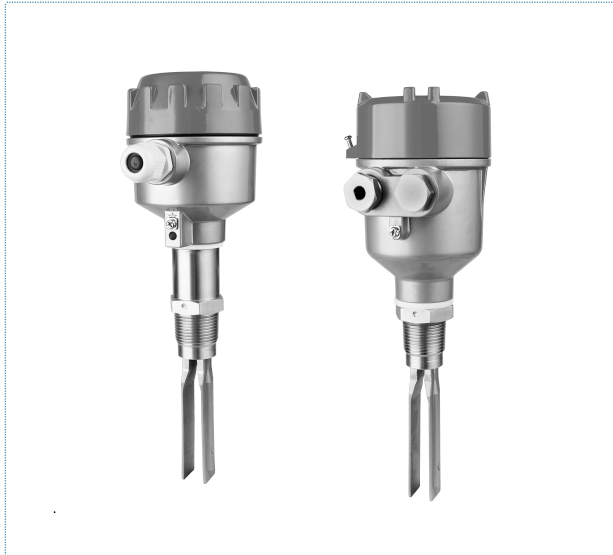


VIBRASH

Specification Sheet

Vibrating Fork Level Switch for Liquid VP series



Technical Data of VP series

Material of housing	Aluminum
Protection class	IP65
Material of probe and thread parts	SUS 304
Process fitting	1" BSPT / G
Operation Voltage	24 VAC, 24 VDC 220 VAC, 110 VAC
Power consumption	10 mA
Output signal	DPDT relay 220 VAC, 5A; 30 VDC, 3A
Frequency	355...365Hz
Switching delay	< 1.0s
Electrical connections	M20x1.5
Control indication	Green Power supply Red Switching status
Ambient temperature	-30 to +60°C
Process temperature	-30...+80°C / +150 °C
Process pressure	Max.2.0 MPa
Density of medium	more 0.7g/dm ³
Viscosity of medium	1.0...10 000 cSt
Wetted length	Max. 2000 mm

Principal of Operation

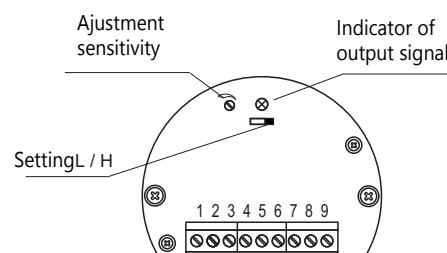
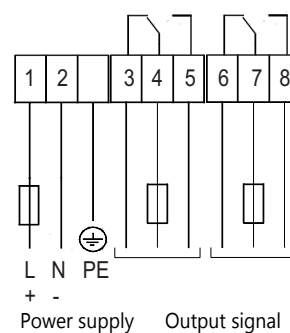
VP version Fork sensors use a mechanical resonance system. The mechanical element is excited and kept in resonance by the sensors electronic circuitry. An electrical signal is applied to a piezoelectric crystal. This electrical excitation causes physical deformation of the crystal, which in-turn creates the probe element vibration at its natural resonant frequency.

When no material is present around the fork, the vibration exists. With material present and surrounding the fork, the vibration is dampened and detected by the electronic circuitry. This results in a change in the relay output and local LED indication.

Principal of Operation

- Power plant, ash silo, ash bunker, reservoir, exhaust gas purification tank, fuel tank, etc.
- Oil field, crude oil or refined oil storage tank, three-phase separator, settling tank, sewage tank and etc.
- Chemical industry, distillation tower, ammonia water tank, toxic liquid tank, etc.
- Cement - Stone tank, cement silo, slag storage silo and etc.
- Water treatment, Food, pharmaceutical, environmental protection, paper and other industries.
- Cement - Stone tank, cement silo, slag storage silo and etc.

Wiring and Electrical connection



How to order

VP - $\frac{S}{01}$ - $\frac{\square}{02}$ - $\frac{\square}{03}$ - $\frac{\square}{04}$ - $\frac{\square}{05}$ - $\frac{\square}{06}$

01) Version of Level Switch

S General industrial
L Extended version
EX Explosion-proof

02) Operating Voltage

A 220 VAC
B 110 VAC
C 24 VAC
D 24 VDC

03) Process Temperature

Blank Standard, -30...+80°C
T High-Temperature, max.+150°C

04) Process Connection

B3 1" BSPT thread
G3 1" G thread
N NPT thread
F Flange
TC Tri-clamp

04) Material of Wetted Parts:

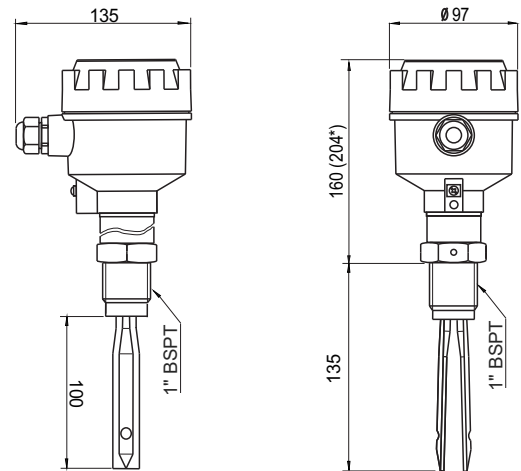
01 SUS304
02 SUS316L

06) Insertion Length

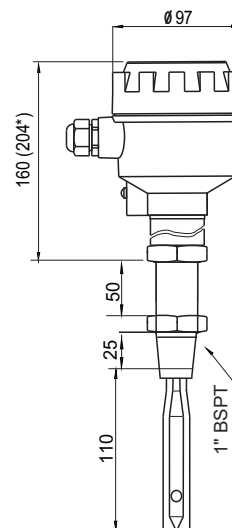
Blank Standard length
L500 500mm
L750 750mm
.....

Dimension, mm

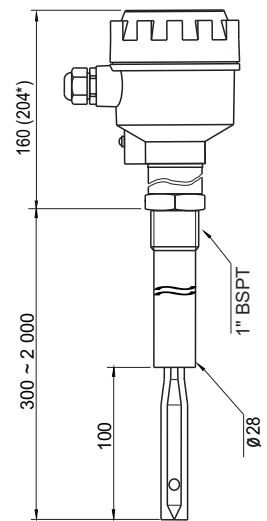
VPS series



VPS-T series



VPS-L series



Accessories of process adaptors



Weld-in joint 1" PT/PF

Use to installation of process sensors in tanks or pipes

Code of joint $\begin{cases} \text{WPT-1 - 1" PT thread, Steel 20.} \\ \text{WPF-1 - 1" PTS thread, Steel SUS304} \end{cases}$



Process Adaptor 1" PT/PF

For the installation of VP sensors in tanks or pipes

Internal thread - 1" PT
External thread - 1 1/2" G
Material - SUS 304
Code of adaptor - PAPT-1PT-1 1/2G



Process Adaptor

For the installation of VP-L extended type of sensors in tanks or pipes

Pmax - 6 bar
External thread - 1 1/2" G
Material - SUS 304
Code of adaptor - PAG-1 1/2G

