

vibration level switch for liquids



benefits

- compact design
- WHG approval
- maintenance-free
- high resistance to chemicals
- versatile process connections
- Commissioning without calibration

Application

Suitable for detecting limit levels in liquids with a maximum dynamic viscosity of 10,000 mPa · s and a minimum density of 0.7 kg/dm³. Specially useful in cases in which floating switches cannot be used due to currents, turbulence or adherence. Ideally suited as an overflow alarm or for dry-run protection. Due to the WHG approval, VibraFox® can be used as part of an approved overfill prevention system.

Description

The vibration fork of VibraFox® is excited to its resonance frequency. When the fork comes into contact with the medium, there is a change in frequency which is detected by the electronics and converted into a switching signal. The unique evaluation electronics enable the application of the system even under adverse conditions, e.g. in vibrating tanks or with turbulent liquid surfaces.

Technical Specifications

Density of medium

0.7 – 2.5 kg/dm³

dynamic viscosity of the medium

0.1 – 10000 mPa · sec

Flow rate

max. 6 m/s (at a viscosity of 10,000 mPa · s)

Operating temperature range

Medium: -40/+100 °C

Ambient: -40/+70 °C

Process pressure

-1/+64 bar

Housing

Stainless steel 316 L

cap: PEI

Vibration fork: Stainless steel 316 L

Supply voltage

2-wire

AC/DC 20 – 253 V

load current

2-wire
min. 10 mA, max. 250 mA

Power input

2-wire
depending on external load

Output

2-wire
non-contact switch

Switching delay

after transition dry - wetted: 0.5 s,
after transition wetted - dry: 0.5 s

Switching point

installation from top: 11 mm,
installation from bottom: 34 mm
(in water at 25 °C)

Options

- other process connections (e.g. NPT, Clamp, dairy fitting)
- surface roughness $R_a < 0.8 \mu\text{m}$
- other electrical connections
- Coupling relay (only for DC version)
- extended operating temperature range -40/+150 °C (medium)

Switching hysteresis

vertical installation: Approx. 2 mm,
horizontal installation: 2 mm
(in water at 25 °C)

visual indication

Bi-colour LED green/red

Function test

with test magnet (included)

Electrical connection

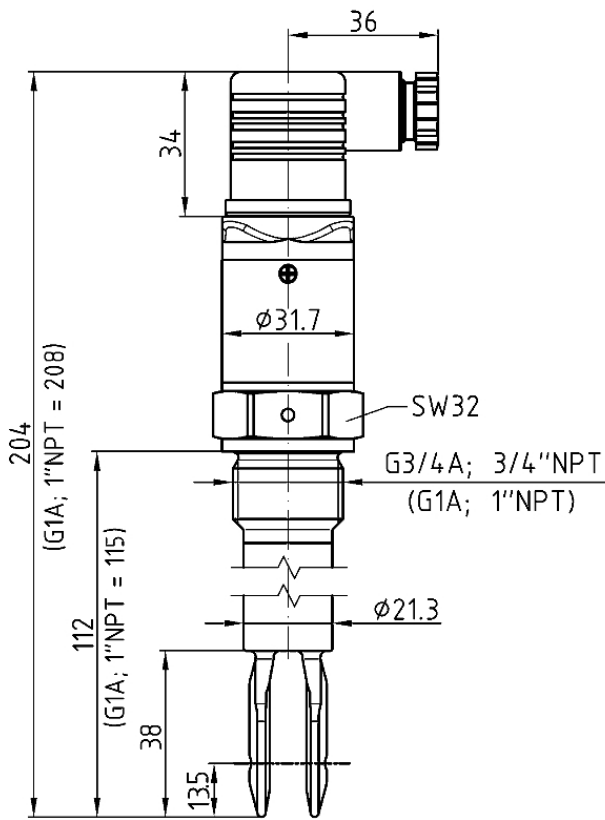
Connector and junction box as per ISO 4400 (DIN 43650-A), IP 65 (EN 60529)

approval for construction products

DIBt: Z-65.11-412

Technical Drawings

GVG 13 / GVG 14 - standard version



Dimensions (mm)

Versions

	Installation length		Part no.
Vibration level switch VibraFox GVG 13	112 mm	●	56170
Vibration level switch VibraFox GVG 13	115 mm	●	56171

- in-stock items
- Non-stock items