



Vibration level switch for liquids VibraFox® GVG

1



- Compact design
- WHG approval
- Maintenance-free
- High resistance to chemicals
- Various 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 applications in which float switches cannot be used due to liquid flow, turbulence or product 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

- Minimum density of medium**
0.7 kg/dm³
- Dynamic viscosity of the medium**
Max. 10,000 mPa • s
- Operating temperature range**
Medium: -40/+100 °C
Ambient: -40/+70 °C
- Process pressure**
-1/+64 bar
- Process connection**
G¾A or G1A (PN 64)
- Vibration fork**
Stainless steel 316 L
Installation length 69 mm or 117 mm
- Supply voltage**
AC/DC 20–253 V (2-wire)
Load current min. 10 mA max. 250 mA
or DC 10–55 V (3-wire)
Load current max. 250 mA
- Power input**
2-wire: Depending on external load
3-wire: Max. 0.6 W
- Output**
2-wire AC/DC
or 3-wire transistor (PNP) DC

- Switching delay**
After immersion: 0.5 s
After removal: 0.5 s
- Switching point**
Vertical installation: 13 mm
(in water at 25 °C)
- Switching hysteresis**
Vertical installation: 2 mm
Horizontal installation: 2 mm
(in water at 25 °C)
- Visual indication**
Bi-colour LED green/red
- Function test**
With test magnet (included)
- Housing**
Stainless steel 316 L, cover PEI
- Electrical connection**
Connector and junction box as per ISO 4400
(DIN 43650-A) IP 65 or M 12 x 1 (IP 67)
- Technical Approval of the German Institute for Building Technology**
Z-65.11-412

Options

- Other process connections (e.g. NPT, Clamp, dairy fitting)
- Surface roughness Ra < 0.8 µm
- Weld-in sockets
- Other electrical connections
- Coupling relay (only for DC version)
- Extended operating temperature range -40/+150 °C (medium)

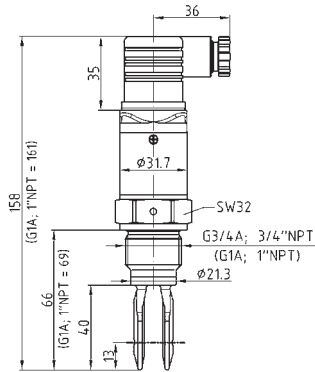
i
See page 52 for prices.

Vibration level switch for liquids VibraFox® GVG

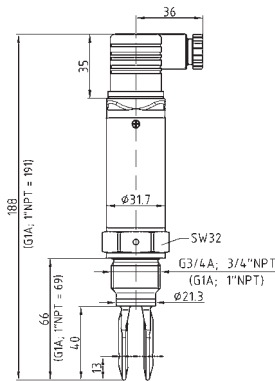
Electrical connections and dimensions (mm)

1

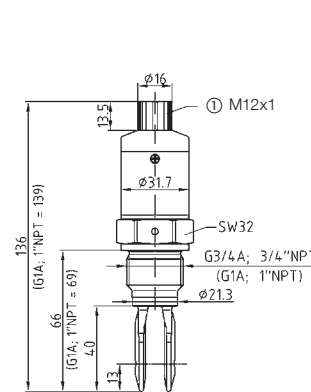
GVG 10/12
Standard version



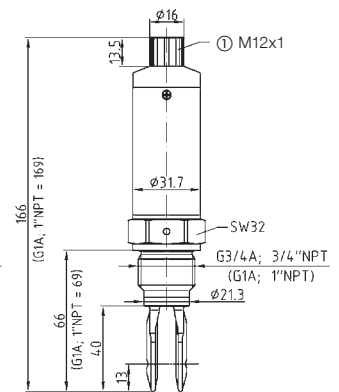
GVG 10 HT/12 HT
High temperature version



GVG 11
Standard version

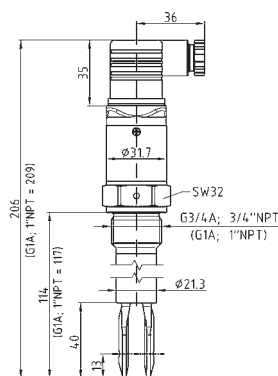


GVG 11 HT
High temperature version

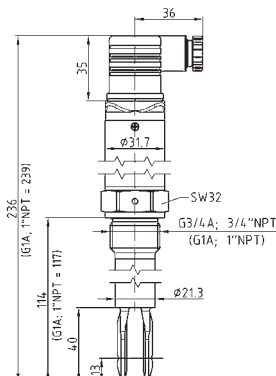


① Protective cover thread

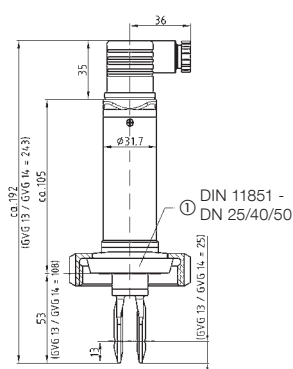
GVG 13/14
Standard version



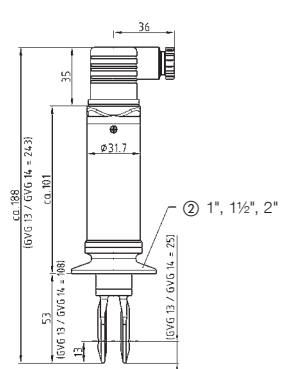
GVG 13 HT/14 HT
High temperature version



GVG 10 MR/GVG 12 MR
Dairy fitting

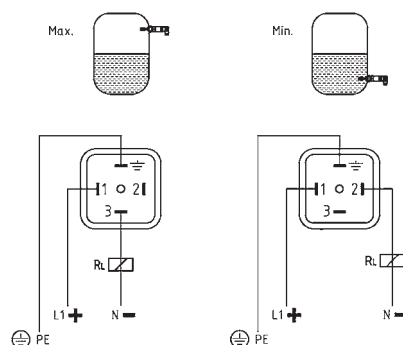


GVG 10 CP/GVG 12 CP
Tri-Clamp

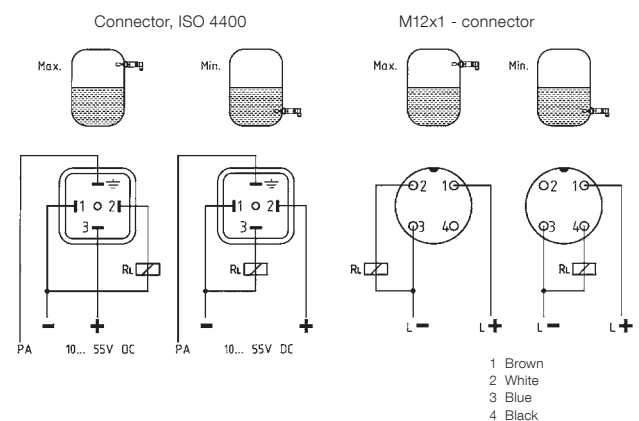


① Screwed pipe connection
② Tri-Clamp

Wiring diagram non-contact switch AC/DC





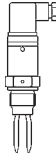
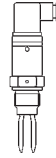
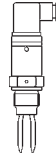
Wiring diagram transistor output (PNP) DC



Vibration level switch for liquids VibraFox® GVG

1

DG: E

Type	GVG 10	GVG 11	GVG 12	GVG 13	GVG 14
Version					
Process connection	G¾A	G¾A	G¾A	G¾A	G¾A
Price €					
Part no.	56164	56166	56168	56170	56172
Process connection	G1A	G1A	G1A	G1A	G1A
Price €					
Part no.	56165	56167	56169	56171	56173
Installation length	69 mm	69 mm	69 mm	117 mm	117 mm
Supply voltage	AC/DC 20–253 V	DC 10–55 V	DC 10–55 V	AC/DC 20–253 V	DC 10–55 V
Output	Non-contact switch	Transistor output PNP	Transistor output PNP	Non-contact switch	Transistor output PNP
Electrical connection	Connector and junction box as per ISO 4400 (DIN 43650-A)	M 12 x 1	Connector and junction box as per ISO 4400 (DIN 43650-A)	Connector and junction box as per ISO 4400 (DIN 43650-A)	Connector and junc- tion box as per ISO 4400 (DIN 43650-A)
Extra charges	Price €	Price €	Price €	Price €	Price €
Extended operating temperature range (medium) -40 °C/+150 °C					
Process connection*					
¾" NPT	Without extra charge	Without extra charge	Without extra charge	Without extra charge	Without extra charge
1" NPT					
Tri-Clamp 1", PN 16, Ra ≤ 0.8 µm, -40/+150 °C**					
Tri-Clamp 2", PN 16, Ra ≤ 0.8 µm, -40/+150 °C**					
Dairy fitting DIN 11851, DN 25, PN 40, Ra ≤ 0.8 µm, -40/+150 °C**					
Dairy fitting DIN 11851, DN 40, PN 40, Ra ≤ 0.8 µm, -40/+150 °C**					
Dairy fitting DIN 11851, DN 50, PN 25, Ra ≤ 0.8 µm, -40/+150 °C**					
Accessories			Part no.		Price €
Coupling relay KR 100 ST (only for DC versions) output: 1 x voltage-free changeover contact			53700		
Spare test magnet for function test			56155		

* Extra charge as compared to version with process connection G¾A.
** Extra charges already include extended operating temperature range -40 °C/+150 °C.