

Guided micropulse level indicators



benefits

- Level measurement independent of changes in pressure, temperature or density
- stable, reliable measurement even with foam, vapour, dust or turbulent surfaces of the medium
- robust housing for rough ambient conditions
- maintenance-free, not subject to wear and tear

Application

For universal continuous level measurement in containers, tanks or silos. Suitable for liquid, powdery, electrically conductive or non-conductive media. Ideal for changing media. FEP-coated and PFA-coated probes are available for corrosive, highly clean media or food. Also suitable for pressurised or vacuum tanks. The device can be easily adjusted by means of the programming display with user-friendly menus; it also serves as a local display.

Description

PulsFox® PMG 20 level indicators operate on the basis of the guided micropulse principle (TDR, time domain reflectometry). A micropulse is emitted along a probe. The micropulse is surrounded by an electromagnetic field. Reflections of the pulses from objects and surfaces serve as the basis of distance measurement. The pulse's propagation time is directly proportional to the distance between the probe and the surface of the medium. The reflectance of materials depends on the dielectric constant ϵ_r . Changes of the medium such as, for example vapour, dust or a turbulent surface do not affect the measuring accuracy of this measuring principle. No recalibration is required when a different medium is used. Even if properties such as pressure, temperature and density change, the system operates with high reliability and precision. PulsFox® PMG 20 has no moving parts and is therefore maintenance-free and not subject to wear.

Technical Specifications

max. measuring range

(specify exact probe length when ordering)

dielectric constant (ϵ_r) of medium

MF

≥ 2.1

Measuring accuracy

MF

$\pm 4 \text{ mm} \leq 2 \text{ m}$

$\pm 2 \text{ mm} > 2 \text{ m}$

Operating temperature range

Medium: $-40/+300 \text{ }^\circ\text{C}$

Flange: $-40/+85 \text{ }^\circ\text{C}$

Ambient: $-30/+70 \text{ }^\circ\text{C}$

Process pressure

MF
max. 10 bar

Process connection

G1B, Stainless steel 316 Ti

Supply voltage

DC 18 – 36 V

Output signal

4–20 mA/HART, 2-wire

Options

- other process connections
- FEP/PFA coatings
- EX version Ex II 1/2 G Ex ia IIB T5 Ga/Gb

material

Probe head: aluminium die cast
MF
Stainless steel 316 L

Degree of protection

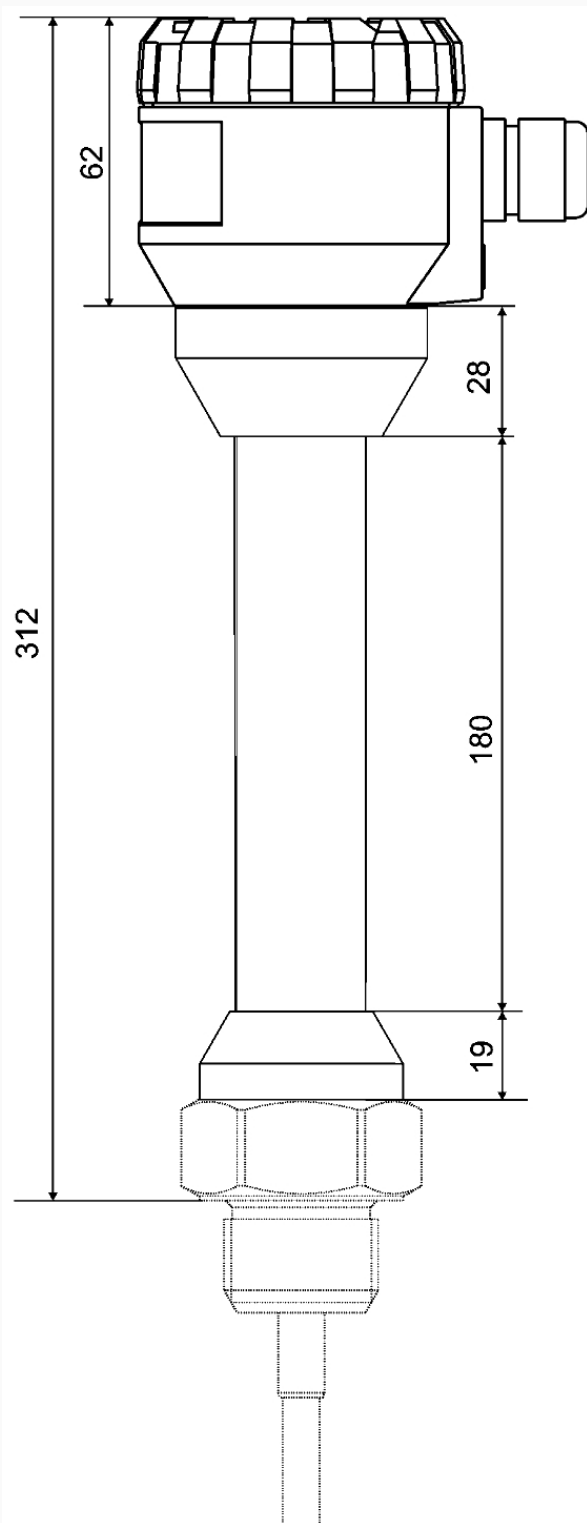
IP 67 (EN 60529)

Electrical connection

Cable gland M16 x 1.5

Technical Drawings

PulsFox® PMG 20 high temperature version



Dimensions (mm)

Versions

			Part no.
PulsFox® PMG 20 MF -60		●	5654060O-L-101
PulsFox® PMG 20 MF -61		●	5654061O-L-101
PulsFox® PMG 20 MF -62		●	5654062O-L-101
PulsFox® PMG 20 MF -63		●	5654063O-L-101
PulsFox® PMG 20 MF -60	with local display	●	5654060D-L-101
PulsFox® PMG 20 MF -61	with local display	●	5654061D-L-101
PulsFox® PMG 20 MF -62	with local display	●	5654062D-L-101
PulsFox® PMG 20 MF -63	with local display	●	5654063D-L-101

- in-stock items
- Non-stock items