

# Guided micropulse level indicator PulsFox® PMG 01



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- For liquid, powdery, granular, electrically conductive or non-conductive media
- Ideal for changing media
- Large measuring ranges
- High temperatures and pressures



**Application** For continuous level measurement in containers, tanks or silos. Suitable for liquid, powdery, granular, electrically conductive or non-conductive media. Also suitable for pressurised or vacuum tanks.

**Description** PulsFox® level indicators operate on the basis of the TDR principle (time domain reflectometry). The measurement is unaffected by changes in dielectric constant, pressure, temperature or density. Foam, steam, dust or a turbulent surface of the medium do not affect the accuracy of the measurement. No recalibration is required when a different medium is used.

## Technical specifications

### Measuring range

B/E probe ≤ 24 m  
C probe ≤ 6 m  
F probe ≤ 3 m  
See probe type for probe version

### Measuring accuracy

Liquids:  
L < 15 m: ±5 mm  
L ≥ 15 m: ±0.05 % of measured value  
Powders/granular materials:  
L < 15 m: ±20 mm  
L ≥ 15 m: ±0.05 % of measured value

### Dielectric constant ( $\epsilon_r$ )

Mono probe ≥ 2.3  
Dual probe ≥ 1.8  
Coax probe ≥ 1.5

### Operating temperature range

Medium: -30/+200 °C  
Flange: -30/ +90 °C  
Ambient: -30/ +60 °C  
(EX version -30/ +55 °C)

### Process pressure

40 bar

### Process connection

G1B (for PMG 01 DF = G1½B)

### Probe type/probe material

F = rigid mono probe:  
Stainless steel 316 Ti, B / E = 1–2  
flexible probe(s): Stainless steel 316 (Ø 4 mm)  
C = Coax probe: Stainless steel 316 Ti  
Wetted parts:  
Stainless steel 316 Ti/316, PTFE, FKM

### Supply voltage

DC 18–35 V  
EX version ≤ DC 28 V

### Output signal

4–20 mA/HART, 2-wire

### Housing

Aluminium die cast

### Degree of protection

IP 65 (EN 60529)

### Electrical connection

Connector ISO 4400  
(DIN 43650-A), IP 65

### Accessories

Operating and configuration software

## Options

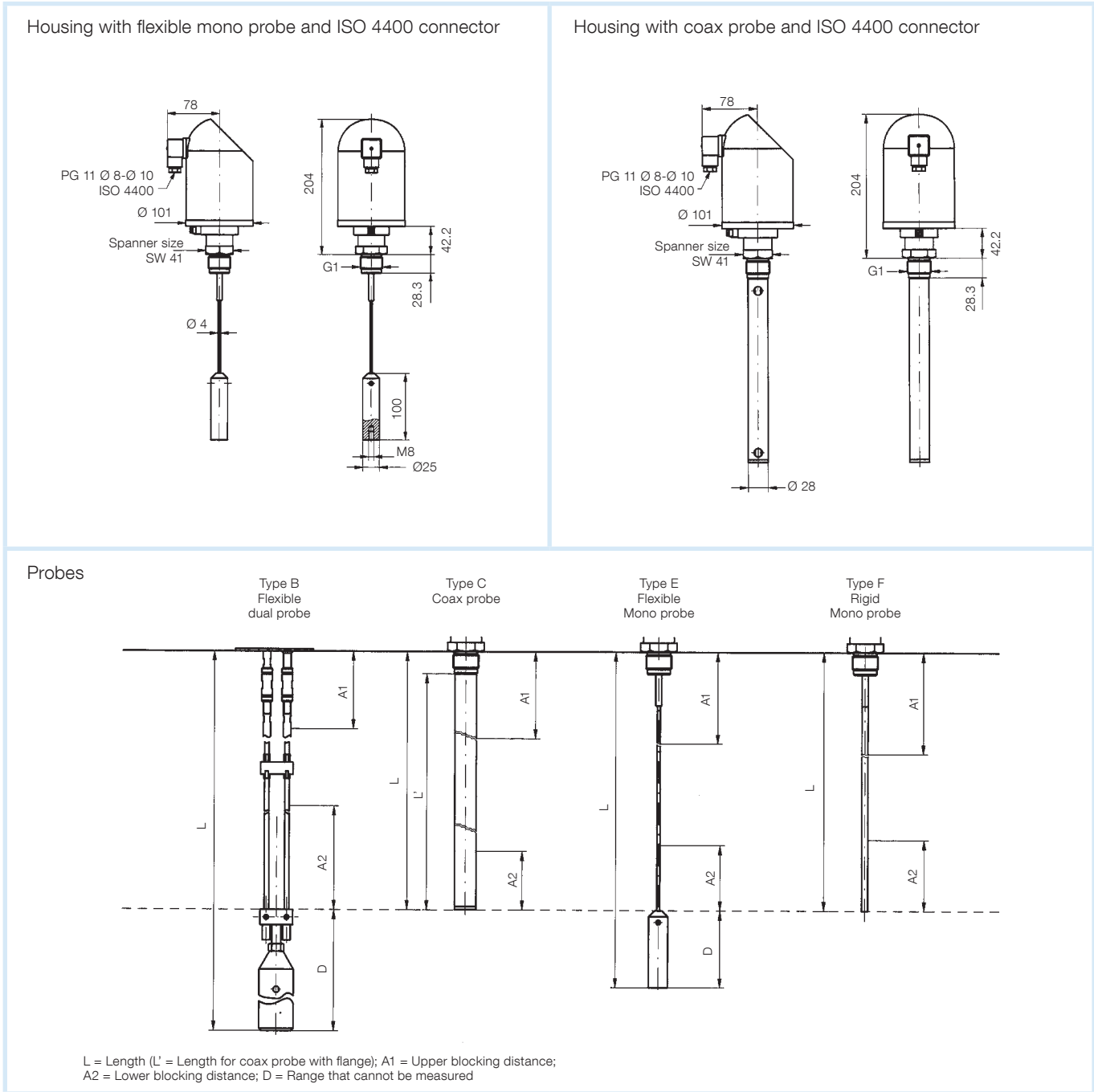
- EX versions
- Other process connections
- Higher pressures
- Other probe diameters
- Higher flange temperatures
- FEP coatings
- Other seal materials
- Digital plug-in displays



See page 31 for prices.

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## 1 Types and dimensions (mm)



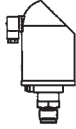
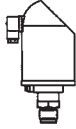

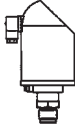
Dielectric constant	Zone	Type B	Type C	Type E	Type F
80	A1	300 mm	0 mm	400 mm	400 mm
80	A2	20 mm	10 mm	20 mm	20 mm
2	A1	330 mm	0 mm	500 mm	500 mm
2	A2	100 mm	100 mm	200 mm	200 mm
-	D	80 mm	-	100 mm	-

# Guide micropulse level indicator

## PulsFox® PMG 01

DG: H

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Type	PMG 01 MS	PMG 01 MF	PMG 01 KX	PMG 01 DF
Version				
Probe type	Mono probe, rigid	Mono probe, flexible (Ø 4 mm)	Coax Probe	Dual probe, flexible
Standard probe length	3 m (max. 3 m)	3 m (max. 24 m)	3 m (max. 6 m)	3 m (max. 24 m)
Measuring accuracy	See data sheet	See data sheet	See data sheet	See data sheet
Max. flange temperature	Up to 90 °C	Up to 90 °C	Up to 90 °C	Up to 90 °C
Seal	FKM	FKM	FKM	FKM
Supply voltage	DC 18–35 V	DC 18–35 V	DC 18–35 V	DC 18–35 V
Output signal	4–20 mA/HART	4–20 mA/HART	4–20 mA/HART	4–20 mA/HART
System	2-wire	2-wire	2-wire	2-wire
Electrical connection	Connector as per ISO 4400 (DIN 43650-A)			
<b>Base price €</b>				
Part no.	53468	53470	53472	53474
<b>Extra charges €</b>				
ATEX II 1 G IIC or IIB T6...T3				
ATEX II 1/2 D T100 °C (powder)				
Max. EX flange temperature up to 200 °C				
<b>Process connection</b>				
G1B PN 40	<b>Standard</b>	<b>Standard</b>	<b>Standard</b>	---
G1½B PN 40	---	---	---	<b>Standard</b>
1" NPT PN 40	<b>No extra charge</b>	<b>No extra charge</b>	<b>No extra charge</b>	---
DIN and ANSI flanges	<b>On request</b>	<b>On request</b>	<b>On request</b>	<b>On request</b>
Clamp connection	<b>On request</b>	<b>On request</b>	<b>On request</b>	<b>On request</b>
Dairy fitting DIN 11851	<b>On request</b>	<b>On request</b>	<b>On request</b>	<b>On request</b>
<b>Probe</b>				
Probe extension per m	---			
Probe diameter 8 mm	---		---	---
Probe extension Ø 8 mm per m	---		---	---
FEP coating for probe length up to 3 m (only for probe diameter 4 mm)	---		---	---
FEP coating per m	---		---	---
<b>Seal</b>				
FFKM				
<b>Accessories</b>				
			Part no.	<b>Price €</b>
HART USB modem			53485	
Digital plug-in display DA 06			<b>31278</b>	
Digital plug-in display DA 06-EX			31279	

\* Process connection = G1½B, Weight = Ø 40 x 260 mm