

# Magnetostrictive level indicator

## MagFox® MMG 01



- High measuring accuracy  $\pm 0.5$  mm
- Freely adjustable measuring range over the entire probe length
- ATEX approval for zone 0 and HART protocol (option)
- Shock- and vibration-resistant (option)



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**Application** For continuous high-precision measurement of levels in tanks and containers with liquid levels of 100 mm to 6,000 mm. Suitable for liquid, not highly viscous media which do not adhere to the probe.

**Description** MagFox® MMG 01 operates on the basis of the magnetostrictive principle. A wire consisting of magnetostrictive material is integrated in the probe tube. The microcontroller-based sensor electronics emit current pulses through the wire which generate a circular magnetic field. The float of the probe contains a magnet which magnetises the wire at the float's position. A torsion wave is generated at the point of overlay of the two magnetic fields; this wave passes back to the probe head. The propagation time is detected and evaluated by the electronics.

### Technical specifications

**Measuring range**  
0/100 mm to 0/6,000 mm

**Measuring accuracy**  
 $\pm 0.5$  mm

**Operating temperature range**  
Medium:  $-40/+125$  °C  
Ambient:  $-40/+85$  °C

**Process pressure**  
Max. 16 bar

**Process connection**  
Stainless steel 316 Ti, compression fitting  
G $\frac{1}{2}$ , height-adjustable

**Probe**  
Stainless steel 316 Ti,  $\varnothing$  12 mm, probe length 1,000 mm (min. length 100 mm/max. length 6,000 mm)


**Float**  
For density of medium  $\geq 0.70$  g/cm $^3$  and  $< 0.60$  g/cm $^3$  stainless steel 316 Ti, PN 16, cylindrical 43 x 43 mm ( $\varnothing$  x H)

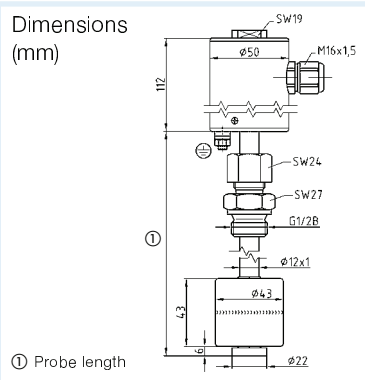
**Supply voltage**  
DC 8–30 V

**Output signal**  
4–20 mA, 2-wire

**Housing**  
Robust field housing with screw cover  
Stainless steel 303,  $\varnothing$  50  
Degree of protection: IP 68 (EN 60529)

**Electrical connections**  
Cable gland M16 x 1.5

- Options**
- EX version 
  - Vibration-resistant version
  - Other process connections
  - Other process pressures
  - Other probe materials
  - Other floats
  - Higher operating temperature range
  - Flexible probe
  - Interface layer measurement via HART protocol



DG: H, PG: 4	Part no.	Price €
<b>MMG 01</b> 100–1,000 mm please specify probe length!	53510	
<b>MMG 01 Ex</b> 100–1,000 mm (II $\frac{1}{2}$ G Ex ia IIC) Please specify probe length.	53514	
Extra charges		
<b>Probe extension</b> per 100 mm		
<b>Process connection</b> R1 $\frac{1}{2}$ , brass		
Operating temperature range (medium) $-40/+250$ °C		