

MBSK- The level meter classic in proven technology

MBSK Level Meter

- Large scale with a well readable wide-angle indication ball
- Various contacts for limit-value monitoring
- 4-20 mA (HART) converter for level metering
- Self-monitoring function for defective floats
- High-grade steel 1.4571, PP, PVDF, PTFE or Hastelloy C4 optionally available as wetted material
- EC-Type Examination Certificate Directive 94/9/EC TÜV 03 ATEX 2234 for Zone 0
- Manufacturing in accordance with the Pressure Equipment Directive 97/23/EC.
- Extensive accessories



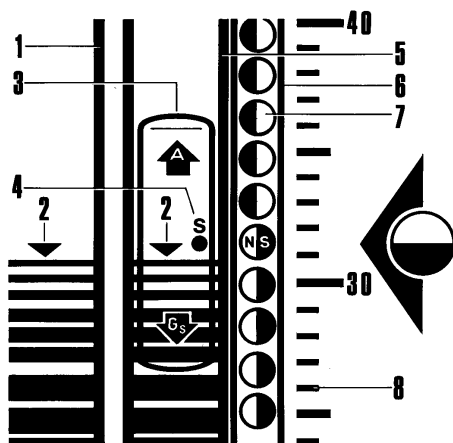
Sensors



Measuring principle and system design

The measuring principle of the MBSK level meter belongs to the classic measuring principles in level measuring technology. In analogy to the principle of communicating pipes, the liquid level in a meter tube is exactly as high as the level in a container if the liquid can flow unobstructed between the meter tube and the container. A float has been integrated in the meter tube, which depending on the buoyancy and weight force acting upon it, takes a certain position representing the filling level.

A cylindrical permanent magnet has been encapsulated in the float, the magnetic field of which acts upon annular follow magnets encapsulated in plastic balls. The red side of the horizontally pivoted plastic balls is visible, if the filling level has (not yet) exceeded the height position of the plastic ball. This magnetic measured value transmission is very reliable even if the liquid level changes rapidly.



Advantages of the MBSK:

- Large scale with a 180 degree wide-angle indication ball for good readability, even under unfavourable conditions
- Break-safe magnetic system
- High resistance to pressure and temperature
- Versatile applications on account of the various corrosion-resistant materials available
- Pressure and gas-tight separation between measuring and indicating section
- Exact magnetic transmission of the measured value due to a high coupling force

Technical data

Scale:	cm/dm, special scales possible
Lower value:	Middle of lower connector
Upper value:	Middle of upper connector
Measuring tolerance:	± 10 mm
Repeatability:	± 5 mm
Hysteresis:	Depends on the viscosity of the liquid
Ambient temperature:	Metal version: - 20°C to + 80°C Plastic version: 0°C to + 50°C
Storage temperature:	See ambient temperature
Climatic category:	Class D in accordance IEC 654 Part 1: non-sheltered locations with direct climatic influence
Degree of protection:	IP54 Standard, Special IP65
EMC:	In accordance with NAMUR recommendation NE 21
Process connection:	Standard: Flanges DN 25 PN 40 in accordance with DIN 2501 Special: ANSI, JIS; higher nominal pressure stages available

Versions and temperature and pressure ranges

MBSK Type	Wetted materials	Fluid temperature range	Fluid pressure range
MBSK - 220	Stainless steel 1.4571	0°C to +150°C (-100°C to +350°C)	16 or 40 bar, special version up to 400 bar
MBSK - 265	Polypropylene	0°C to +60°C	6 bar (at 20 °C)
MBSK - 273	PVDF	0°C to +90°C	10 bar (with glass float) (at 40 °C)
MBSK - 270	PTFE	0°C to +130°C	16 bar (with glass float)
MBSK - 280	Hastelloy C4/22	0°C to +150°C (-20°C to +350°C)	16 or 40 bar, special version on request

Subject to changes without notice