

Hydrostatic Level measurement Waterpilot FMX21

Reliable and robust level probe with ceramic measuring cell and HART



Benefits:

- Robust overload-resistant high purity ceramic sensor (99.9% Al_2O_3)
- Flexible scaling of 4 to 20mA with superimposed HART 6.0 output
- Highest level accuracy using temperature compensated density correction
- Simultaneous measurement of level and temperature with optionally integrated Pt100 temperature sensor
- Extensive range of accessories provides complete measuring point solutions
- Climate proofed sensor thanks to completely potted electronics and 2-filter pressure compensation system
- Small outer diameter of 22mm (0.87") version suitable for drinking water applications and for use in bore holes and wells with small diameters

More information and current pricing:

www.be.endress.com/FMX21

Specs at a glance

- **Accuracy** 0.2% 0.1% (optional)
- **Process temperature** -10°C...70°C (14°F...158°F) Diameter 29 mm (1.14"): 0°C...50°C (32°F...122°F)
- **Pressure measuring range** 100 mbar...20 bar (1.5 psi...300 psi)
- **Main wetted parts** Diameter 22 mm and 42 mm: Seal, 316L, Ceramic Diameter 29 mm: Seal, PPS, Polyolefin, Ceramic
Extension cable: PE, PUR, FEP
- **Max. measurement distance** 200 m H₂O (656 ft H₂O)

Field of application: The Waterpilot FMX21 transmitter with capacitive, oil-free ceramic measuring cell is typically used in the process and environmental applications for hydrostatic level measurement. With

HART output, the measuring ranges can be freely adjusted and a density-compensated level measurement can be activated. It is certified for drinking water and offers integrated temperature measurement. Versions for applications in wastewaters and sludges or usage in salt water are also available.

Features and specifications

Continuous / Liquids

Measuring principle

Hydrostatic

Characteristic / Application

Compact probe with ceramic cell for hydrostatic level measurement,

Diameter = 22 mm: General applications, Fresh water

Diameter = 42 mm: Waste water applications

Diameter = 29 mm: Salt water applications

Specialities

Automatic density compensation

Version w/o metal parts in contact to process

Supply / Communication

10.5 ...35 VDC

Accuracy

0.2%

0.1% (optional)

Long term stability

0.1% of URL/year

Continuous / Liquids**Ambient temperature**

-10°C...70°C

(14°F...158°F)

Diameter 29 mm (1.14"):

0°C...50°C

(32°F...122°F)

Process temperature

-10°C...70°C

(14°F...158°F)

Diameter 29 mm (1.14"): 0°C...50°C

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Pressure measuring range

100 mbar...20 bar

(1.5 psi...300 psi)

Main wetted parts

Diameter 22 mm and 42 mm: Seal, 316L, Ceramic

Diameter 29 mm: Seal, PPS, Polyolefin, Ceramic

Extension cable: PE, PUR, FEP

Process connection

Suspension clamp

Cable mounting screws

Max. measurement distance200 m H₂O(656 ft H₂O)

Continuous / Liquids**Communication**

4...20 mA

4...20 mA HART

Certificates / Approvals

ATEX, FM, CSA, CSA C/US, IEC Ex, NEPSI

Marine approval

GL/ ABS/ BV/ DNV/ LR

Drinking water approvals

KTW/ NSF/ ACS

Options

Absolute measuring cell

Integrated temperature sensor Pt100, 4-wire

customer specific adjustment

customer specific cable marking

Application limits

Measuring cell: ceramics

Pressure**Measuring principle**

Hydrostatic pressure

Pressure**Characteristic**

Compact probe with ceramic cell for hydrostatic level measurement,

Diameter = 22 mm: General applications, fresh water

Diameter = 42 mm: Waste water applications

Diameter = 29 mm: Salt water applications

Supply voltage

10.5 ...35V DC

Reference Accuracy

0.2%

0.1% (optional)

Long term stability

0.1% of URL/year

Process temperature

-10°C...70°C

(14°F...158°F)

Diameter 29 mm (1.14"): 0°C...50°C

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Pressure

Measuring cell

100mbar...20bar
(1.5psi...300psi)

Process connection

Suspension clamp

Cable mounting screws

Communication

4...20 mA

4...20 mA HART

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