

# Hydrostatic Level measurement Waterpilot FMX21

Reliable and robust level probe with ceramic measuring cell and HART



F L E X

## Benefits:

- Robust overload-resistant high purity ceramic sensor (99.9%  $\text{Al}_2\text{O}_3$ )
- 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.uk.endress.com/FMX21](http://www.uk.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 H<sub>2</sub>O (656 ft H<sub>2</sub>O)

**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

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**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)

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**Process temperature**

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**Pressure measuring range**

100 mbar...20 bar

(1.5 psi...300 psi)

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**Main wetted parts**

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

Diameter 29 mm: Seal, PPS, Polyolefin, Ceramic

Extension cable: PE, PUR, FEP

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**Process connection**

Suspension clamp

Cable mounting screws

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**Max. measurement distance**200 m H<sub>2</sub>O(656 ft H<sub>2</sub>O)

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**Continuous / Liquids****Communication**

4...20 mA

4...20 mA HART

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**Certificates / Approvals**

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

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**Marine approval**

GL/ ABS/ BV/ DNV/ LR

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**Drinking water approvals**

KTW/ NSF/ ACS

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**Options**

Absolute measuring cell

Integrated temperature sensor Pt100, 4-wire

customer specific adjustment

customer specific cable marking

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**Application limits**

Measuring cell: ceramics

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**Pressure****Measuring principle**

Hydrostatic pressure

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**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

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**Supply voltage**

10.5 ...35V DC

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**Reference Accuracy**

0.2%

0.1% (optional)

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**Long term stability**

0.1% of URL/year

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**Process temperature**

-10°C...70°C

(14°F...158°F)

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Pressure

**Measuring cell**

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

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**Process connection**

Suspension clamp

Cable mounting screws

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**Communication**

4...20 mA

4...20 mA HART

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**Certificates / Approvals**

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

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**Marine approvals**

GL/ ABS/ BV/ DNV/ LR

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