



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Deltapilot S - FMB70

Hydrostatic level transmitter for food, beverage and dairy applications



Sanitary design with superior performance

- High quality 316L stainless steel housing with polycarbonate sight glass
- Water-tight housing design rated NEMA 6P (temporarily submersible)
- Meets 3A sanitary standards
- Easy set-up with local display - HART® or push-buttons
- Best-in-class temperature compensation and stable zero point
- Measuring range down to 10" w.c.
- High accuracy
- Two-wire loop powered (4 to 20 mA) HART
- Digital communication: Profibus® PA or Foundation Fieldbus™
- Another Endress+Hauser industry first - optional remote process connection rated IP69K (high-pressure washdown)



Endress+Hauser 

People for Process Automation

Overview

The Deltapilot S FMB70 is a hydrostatic level transmitter designed to handle the strenuous requirements typically found in food and beverage applications. The unique CONTITE™ pressure sensor provides highly active temperature compensation for best-in-class measurement accuracy and batch-to-batch zero-point stability. The housing withstands tough washdowns and is available in either a compact or remote version. The remote version has cable connections rated to IP69K for high pressure high temperature washdown sprays.

The FMB70 has a large optional digital display and local push-buttons for easy configuration and calibration. Zero and span settings can be made either wet (with process liquids) or dry (without process liquids or external pressure sources). Density and tank linearization tables can be programmed from the display for mass or volume output.

Features and benefits

Smart

The smart electronics uses a “level” mode to program strapping tables for non-linear tanks and measure level in units of pressure, height, volume or mass.

- Reduced engineering time and hardware complexity necessary to convert pressure reading to useable process information

Stable

Excellent long-term zero-point stability reduces calibration frequency.

- Reduced maintenance and process downtime costs associated with frequent calibrations

High accuracy

Best-in-class temperature compensation responds quickly and accurately to temperature changes during batch processing and CIP/SIP cycles.

- Reduced down-time between batches and improve batch-to-batch repeatability

User friendly

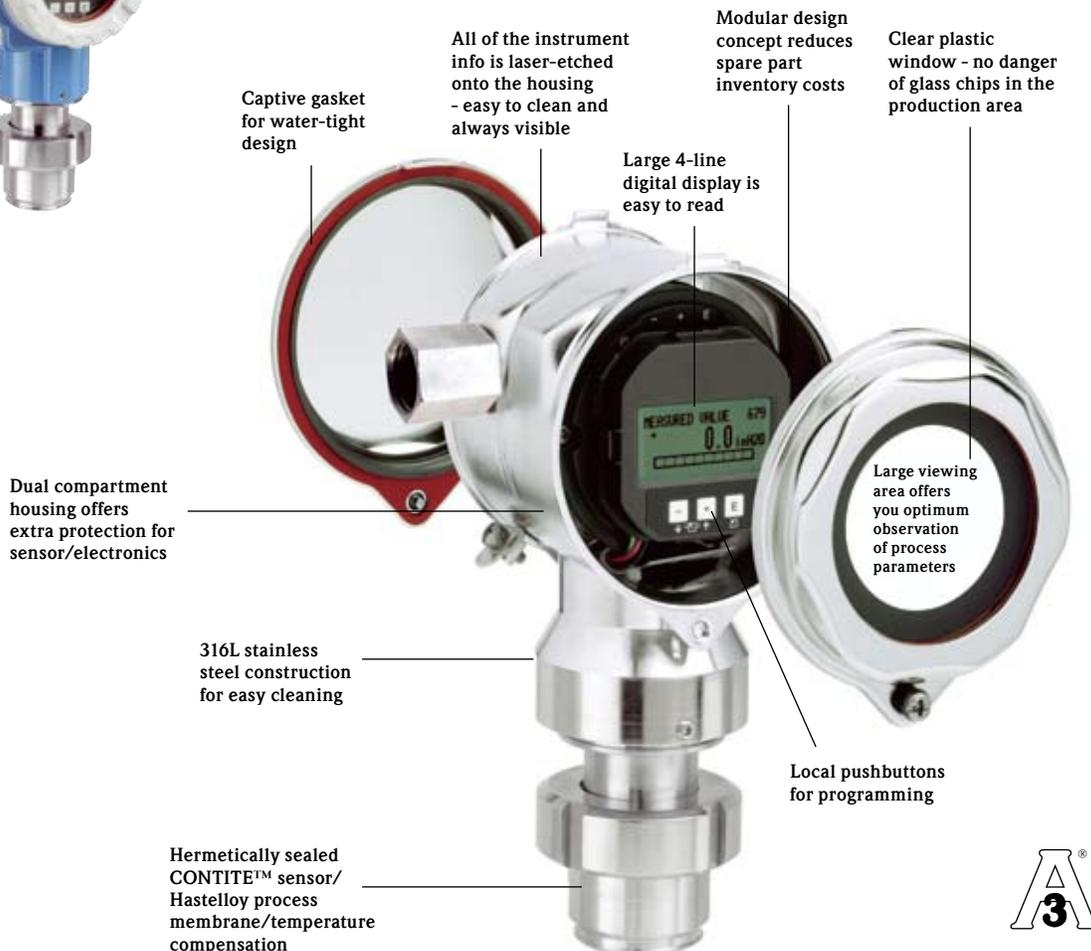
Clear local display with push-buttons allows local access to all configuration parameters without the need for a digital multimeter or HART handheld communicator.

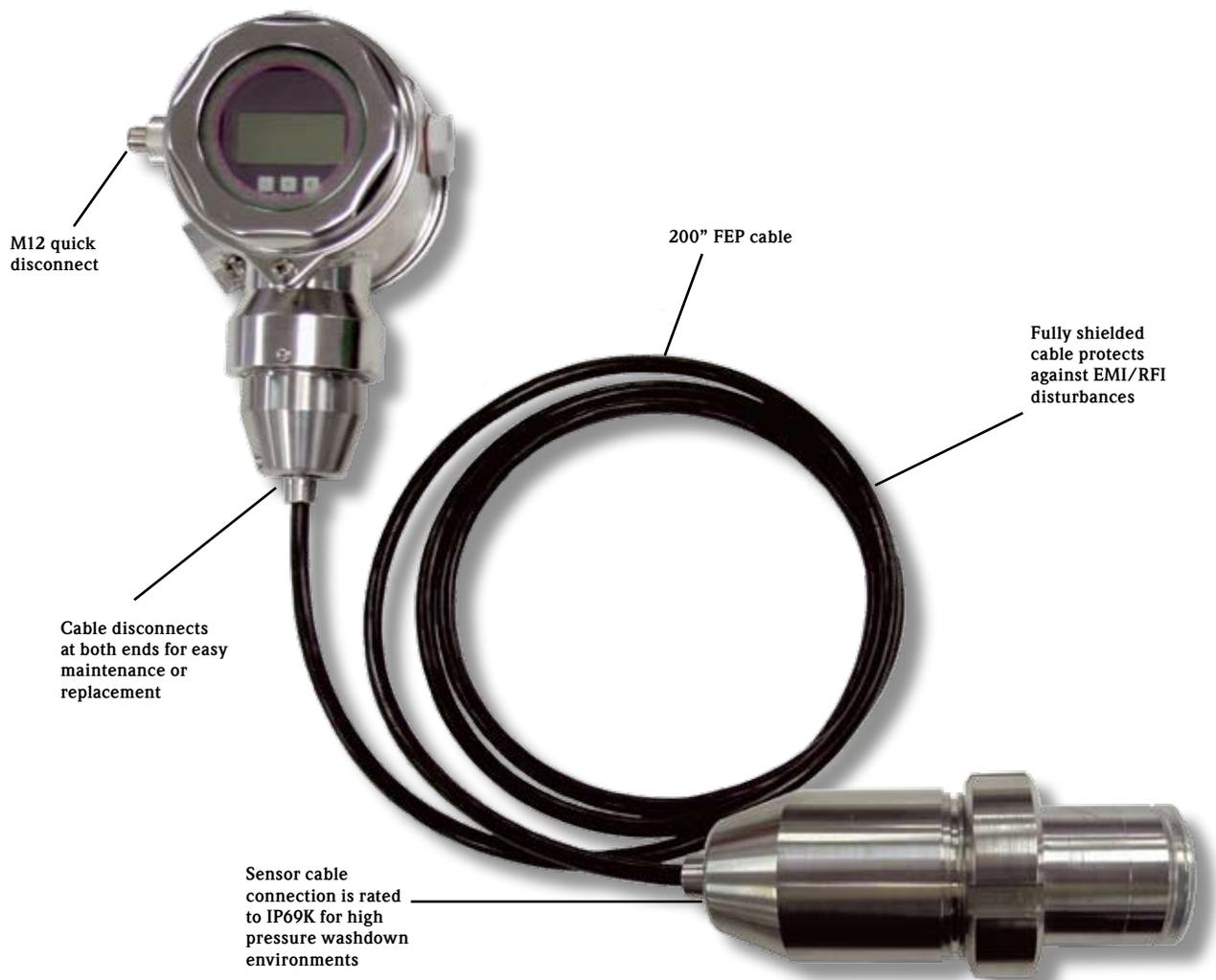
- Simplify the programming of zero, span and other parameters

Durable

The housing, CONTITE sensor and cable connections withstand harsh washdown environments

- Increases the lifetime of each transmitter





Configuration options

Output

- 4 to 20 mA HART®
- Foundation Fieldbus™
- Profibus® PA

Housing options

- M12 quick disconnect
- 1/2" NPT
- 7/8" FF plug
- M20 gland
- Aluminum
- 316 SS
- Remote option

Process connections

- 2" Tri-Clamp®
- 3" Tri-Clamp
- Endress+Hauser universal adapter - short
- Endress+Hauser universal adapter - long
- Rosemount sanitary spud - short
- Rosemount sanitary spud - long
- Anderson adapter - short
- Anderson adapter - long
- Varivent® type N
- 2" Cherry-Burrell I-line

Process Temperature Range

- +14 to 212 °F (-10 to +100 °C)
- up to 275 °F (135 °C) for 30 minutes

Response Time

- 70 msec

Approvals

- 3-A, EHEDG, CE, FM, CSA

Housing

- IP 66/68/NEMA 6P

Technical data

Accuracy

Sensor Range	Reference Accuracy ¹	Total Performance ²	Long-term Stability	Turndown
40" w.c./1.5 PSIG	±0.15% of span	±0.35% of URL	±0.18% of URL per year	4:1
160" w.c./6 PSIG	±0.15% of span	±0.35% of URL	±0.1% of URL per year	10:1
480" w.c./18 PSIG	±0.1% of span	±0.15% of URL	±0.1% of URL per year	12:1
1,600" w.c./60 PSIG	±0.1% of span	±0.15% of URL	±0.05% of URL per year	40:1
4,000" w.c./150 PSIG	±0.1% of span	±0.15% of URL	±0.05% of URL per year	100:1

¹Includes linearity, hysteresis and repeatability

²Includes linearity, hysteresis, repeatability and process temperature effects over the range +14 to +140 °F

Endress+Hauser's product portfolio

Level

- Capacitance (RF)
- Conductive
- Mechanical
- Vibration
- Ultrasonic
- Radar
- Guided radar (TDR)
- Hydrostatic



Pressure

- Gauge/absolute
- Differential pressure
- Hydrostatic



Flow

- Electromagnetic
- Vortex shedding
- Coriolis mass flow
- Ultrasonic
- Open channel
- D/P flow



Temperature

- Temperature transmitters
- RTDs/thermocouples
- Sensors



Liquid Analysis

- Conductivity
- pH/ORP
- Chlorine
- Dissolved oxygen
- Turbidity
- Chemical analyzers
- Nitrate/organic sensors
- Sludge level



Recorders

- Paperless recorders
- Visual data managers
- Safety data managers



Components

- Displays
- Active barriers
- Process transmitters
- Power supplies



Service

- Start-up
- Training
- Calibration
- Maintenance Contracts
- Installed Base Audit



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