

Electronic differential pressure Deltabar FMD72

Electronic differential pressure system
utilizing two metal sensor modules and one
transmitter



Benefits:

- Eliminates traditional mechanical issues resulting in greater process availability and reliability
- Safety risks are minimized with the new electronic differential pressure system architecture and design
- Lowest total cost of ownership due to reduced installation time, maintenance, downtime and spare requirements
- Multivariable level measurement: HART-based differential pressure, head pressure and sensor temperatures from one system
- Continuous health indication of the entire system via HART-based diagnostic
- High reproducibility and long-term stability
- Process safety assured with small flush mounted process connections in hygienic applications

More information and current pricing:

www.endress.com/FMD72

Specs at a glance

- **Accuracy** 0.075% of individual sensor, "PLATINUM" 0.05% of individual sensor
- **Process temperature** -40...+125°C (-40 ... +257°F)
- **Pressure measuring range** 400 mbar...10 bar (6 psi...150 psi)
- **Process pressure / max. overpressure limit** 160 bar (2400 psi)
- **Main wetted parts** 316L, Alloy C

Field of application: The electronic dp Deltabar FMD72 is a differential pressure system, used to measure the pressure, level, volume or mass of liquids in pressurized tanks or distillation columns/evaporators. The high pressure sensor (HP) measures the hydrostatic pressure. The low

pressure sensor (LP) measures the head pressure. The level is calculated in the transmitter using these two digital values. The electronic dp system eliminates issues of traditional differential pressure measurements.

Features and specifications

Pressure

Measuring principle

Differential pressure

Characteristic

Electronic differential pressure transmitter with metal sensor for level, volume or mass measurement in liquids.

Supply voltage

4...20 mA HART:
12...45V DC (Non Ex)
Ex ia: 12...30V DC

Reference Accuracy

0.075% of individual sensor,
"PLATINUM" 0.05% of individual sensor

Long term stability

0.05% of URL/year of individual sensor

Process temperature

-40...+125°C
(-40...+257°F)

Ambient temperature

-40...+80°C
(-40...+176°F)

Measuring cell

400 mbar...10 bar
(6 psi...150psi)

Pressure**Vacuum resistance**10 mbar (0.15 psi)

Max. overpressure limit160 bar (2400 psi)

Process connection

Threads

Flange (DIN, ASME, JIS)

Process connection hygienic

DIN11851

DIN11864-1

Tri-Clamp

DRD

Varivent

Material process membrane316L, AlloyC,

Fill fluid

Silicone oil

Synthetic oil

Material housing

Die-cast aluminum

Stainless steel

Communication4...20 mA HART

Certificates / ApprovalsATEX, FM, CSA, IECEx, NEPSI, INMETRO, UK Ex

Design approvals

NACE MR0175,

EN10204-3.1,

Pressure

Hygienic approvals

EHEDG

3A

Continuous / Liquids

Measuring principle

Differential pressure

Characteristic / Application

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Supply / Communication

4...20 mA HART

Accuracy

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"PLATINUM" 0.05% of individual sensor

Long term stability

0.05% of URL/year of individual sensor

Ambient temperature

−40...+80°C

(−40... +176°F)

Process temperature

−40...+125°C

(−40 ... +257°F)

Process pressure / max. overpressure limit

160 bar (2400 psi)

Pressure measuring range

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(6 psi...150 psi)

Continuous / Liquids

Main wetted parts

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Design approvals

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EN10204-3.1

Hygienic approvals

FDA

Options

4-line digital display

SS- or Aluminium housing

Application limits

Use the Software Applicator Sizing Electronic DP

More information www.endress.com/FMD72