

# Electronic differential pressure Deltabar FMD72

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



More information and current pricing:

[www.endress.com/FMD72](http://www.endress.com/FMD72)

## 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

## 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 limit**

160 bar (2400 psi)

**Process connection**

Threads

Flange (DIN, ASME, JIS)

**Process connection hygienic**

DIN11851

DIN11864-1

Tri-Clamp

DRD

Varivent

**Material process membrane**

316L, AlloyC,

**Fill fluid**

Silicone oil

Synthetic oil

**Material housing**

Die-cast aluminum

Stainless steel

**Communication**

4...20 mA HART

**Certificates / Approvals**

ATEX, FM, CSA, IECEx, NEPSI, INMETRO, UK Ex

**Design approvals**

NACE MR0175,

EN10204-3.1,

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**Pressure****Hygienic approvals**

EHEDG

3A

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**Continuous / Liquids****Measuring principle**Differential pressure

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

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**Supply / Communication**4...20 mA HART

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**Accuracy**

0.075% of individual sensor,

"PLATINUM" 0.05% of individual sensor

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**Long term stability**0.05% of URL/year of individual sensor

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**Ambient temperature**

-40...+80°C

(-40... +176°F)

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**Process temperature**

-40...+125°C

(-40 ... +257°F)

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**Process pressure / max. overpressure limit**160 bar (2400 psi)

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**Pressure measuring range**

400 mbar...10 bar

(6 psi...150 psi)

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## Continuous / Liquids

**Main wetted parts**

316L, Alloy C

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**Process connection**

Threads

Flange (DIN, ASME, JIS)

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**Process connection hygienic**

DIN11851

DIN11864-1

Tri-Clamp

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**Communication**

4...20 mA HART

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**Certificates / Approvals**

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

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**Design approvals**

NACE MR0175

EN10204-3.1

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**Hygienic approvals**

FDA

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**Options**

4-line digital display

SS- or Aluminium housing

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**Application limits**

Use the Software Applicator Sizing Electronic DP

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