



PRODUCT DATA SHEET

## MX-400 Panel Sensor

Panel-mount pressure sensor · 4–20 mA · IP67 · –40 to +125 °C

**±0.25%**

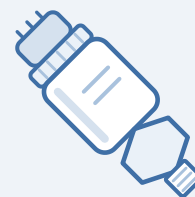
TOTAL ERROR BAND

**IP67**

SEALED ENCLOSURE

**–40...125 °C**

COMPENSATED RANGE



### OVERVIEW

The MX-400 is a rugged two-wire pressure transmitter for hydraulic and pneumatic systems. A fully welded 17-4 PH stainless diaphragm senses process pressure with no internal fill fluid, giving long-term stability in high-vibration machinery, while the 4–20 mA current loop drops directly into existing PLC and SCADA installations with no added signal conditioning.

#### Key features

- 0.25% total error band: non-linearity, hysteresis and repeatability combined
- Fully welded 17-4 PH stainless diaphragm, media-isolated with no fill fluid
- Compensated –40 to +125 °C with no external temperature compensation
- Drop-in two-wire 4–20 mA loop for existing PLC / SCADA
- IP67-sealed M12 connector for washdown and high-vibration duty
- 2× overpressure and ±0.20% FS/yr long-term stability

#### Typical applications

- Hydraulic power units and presses
- Pneumatic and compressed-air systems
- Mobile and off-highway equipment
- Test benches and calibration rigs
- Pump and compressor monitoring
- Injection moulding and machine tools

## SPECIFICATIONS & RATINGS

### Key specifications

|                         |                      |
|-------------------------|----------------------|
| Pressure ranges         | 100 / 250 / 600 bar  |
| Output signal           | 4–20 mA, 2-wire      |
| Supply voltage          | 8–30 VDC (24 V nom.) |
| Operating temperature   | –40 to +125 °C       |
| Compensated temperature | –20 to +85 °C        |
| Max loop resistance     | (Vs – 8 V) / 20 mA   |
| Process connection      | G¼" male, 17-4 PH    |
| Enclosure rating        | IP67                 |

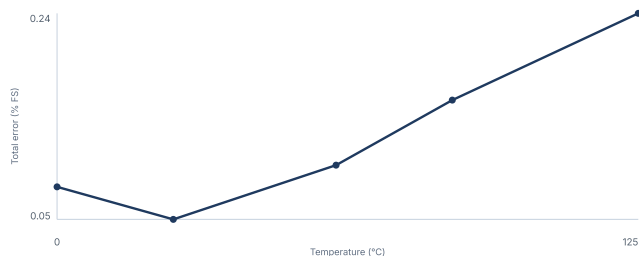
### Absolute maximum ratings

|                      |                |
|----------------------|----------------|
| Overpressure limit   | 2× full scale  |
| Burst pressure       | 4× full scale  |
| Supply voltage (max) | 36 VDC         |
| Reverse polarity     | Protected      |
| Storage temperature  | –40 to +100 °C |

## PERFORMANCE & DIMENSIONS

### Accuracy vs temperature

ACCURACY VS TEMPERATURE



### Key dimensions

A: Overall 96 mm height

B: Body 27 mm diameter

C: Hex 24 mm width across flats

D: G¼" male Process thread

E: M12 × 1, 4-Electrical pin connector

## ELECTRICAL & MECHANICAL CHARACTERISTICS

| PARAMETER                             | MIN | TYP   | MAX   | UNIT    |
|---------------------------------------|-----|-------|-------|---------|
| <b>ACCURACY &amp; STABILITY</b>       |     |       |       |         |
| Total error band                      | —   | ±0.25 | ±0.5  | % FS    |
| Non-linearity (BFSL)                  | —   | ±0.10 | ±0.15 | % FS    |
| Long-term stability                   | —   | ±0.20 | —     | % FS/yr |
| <b>ELECTRICAL &amp; ENVIRONMENTAL</b> |     |       |       |         |
| Supply voltage                        | 8   | 24    | 30    | VDC     |
| Output current                        | 4   | —     | 20    | mA      |
| Response time (10–90%)                | —   | 1     | 2     | ms      |
| Vibration (IEC 60068-2-6)             | —   | —     | 20    | g       |

## WIRING & CONSTRUCTION

### M12 connector pin-out

| PIN | FUNCTION          | WIRE COLOUR |
|-----|-------------------|-------------|
| 1   | + Supply          | Brown       |
| 2   | Not connected     | White       |
| 3   | – Supply / signal | Blue        |
| 4   | Shield / earth    | Black       |

### Materials & interface

| PARAMETER                | VALUE                               |
|--------------------------|-------------------------------------|
| <b>MATERIALS</b>         |                                     |
| Diaphragm / wetted parts | 17-4 PH stainless steel             |
| Housing                  | 316L stainless steel                |
| Process seal             | FKM (Viton), fully welded           |
| <b>INTERFACE</b>         |                                     |
| Process connection       | G $\frac{1}{4}$ " male (DIN 3852-E) |

## ORDERING INFORMATION

### MX-400-250B

**MX-400**
**250**
**B**
**MX-400**

Series

**250**

Range (bar)

**B**

4–20 mA output

| ORDER CODE  | PRESSURE RANGE | OUTPUT   | ACCURACY  | PROCESS CONNECTION |
|-------------|----------------|----------|-----------|--------------------|
| MX-400-100B | 0–100 bar      | 4–20 mA  | ±0.25% FS | G¼" · M12          |
| MX-400-250B | 0–250 bar      | 4–20 mA  | ±0.25% FS | G¼" · M12          |
| MX-400-400B | 0–400 bar      | 4–20 mA  | ±0.25% FS | G¼" · M12          |
| MX-400-600B | 0–600 bar      | 4–20 mA  | ±0.25% FS | G¼" · M12          |
| MX-400-250V | 0–250 bar      | 0–10 VDC | ±0.25% FS | G¼" · M12          |

#### Certifications

**CE** CE marking

**UKCA** UKCA

**RoHS** RoHS 3

**IP67** IP67 sealed

**IP67**

SOLIDS

Dust-tight

WATER

Immersion to 1 m

#### Related documents

**EU Declaration of Conformity** DoC-MX400-03

**RoHS 3 Declaration** ROHS-MX400-03

**Installation guide** DOC-MX400-INST Rev C

**3D model / STEP** meridian.example/mx-400