

Model EPT2000 series

OEM Pressure Transmitter
Stainless steel pressure sensor
Mass production, automated calibration

Materontek
Sensing and Internet of Things

Features

- ❑ Measuring ranges from 100mbar to 600bar
- ❑ Gauge pressure, Absolute pressure
- ❑ Accuracy: $\pm 0.1\%$ FSO(Min.), $\pm 0.25\%$ FSO(Typ.)
- ❑ Calibrated and temperature compensated
- ❑ Stainless steel pressure sensor
- ❑ Output 4...20mA,RS485,HART and others



Application

- ❑ Hydraulic and pneumatic
- ❑ Machine building
- ❑ Water treatment
- ❑ IoT pressure measurement

Technical data

Performance

| | | |
|-------------------------------|--------------------------------------|--|
| Accuracy* | 0.1%FS@25°C(Min.) 0.25%FS@25°C(Typ.) | *Linearity (best straight line) + Hysteresis + Repeatability |
| Operating Temperature | -20 to 85°C | |
| Compensated Temperature Range | -10 to 70°C | |
| Temp. coeff - Zero | ± 0.75 [Typ.], ± 1.5 [Max.] | |
| Temp. coeff - Span | ± 0.75 [Typ.], ± 1.5 [Max.] | |
| Vibration | 20 g RMS(20 to 2000Hz) | |
| Shock | 100 g(10ms) | |
| Cycles | 10×10^5 | |
| Long Term Stability | 0.2 %FS | |

Electrical @25°C

| | |
|-----------------------------|--|
| Output signal / Supply | 2-wire 4...20mA / $V_s = 12...30$ VDC |
| | 2-wire 4...20mA+HART / $V_s = 12... 30$ VDC |
| | 4-wire RS485 Modbus RTU / $V_s = 12... 30$ VDC |
| Insulation Resistance | 100 M Ω @100VDC |
| EMC Test | IEC61000-6-2/IEC61000-6-3 |
| Reverse polarity protection | No damage - no function |

Physical Specifications

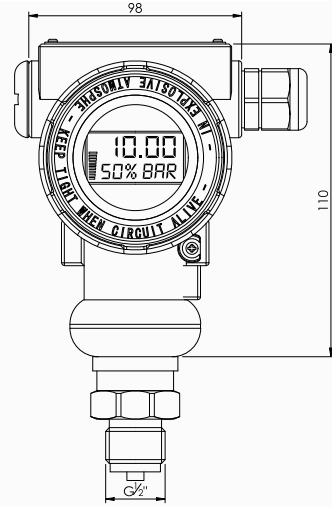
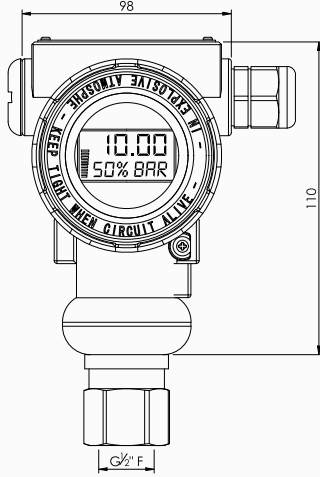
| | |
|-------------|----------------------|
| Housing | 304 stainless steel |
| Diaphragm | 316L stainless steel |
| Sealing | NBR or Viton O-ring |
| Oil Filling | Silicone oil |
| Protection | IP65 |
| Weight | ~500g(without cable) |

The listed specifications and dimensions are subject to change without prior notice

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Dimensions (All dimensions in mm)



Standard pressure range

| Code | Nominal pressure [bar] | Gauge | Sealed gauge | Absolute |
|------|------------------------|-------|--------------|----------|
| 01 | 0...0.1 | ✓ | | |
| 02 | 0...0.2 | ✓ | | |
| 03 | 0...0.35 | ✓ | | ✓ |
| 04 | 0...0.7 | ✓ | | ✓ |
| 05 | 0...1 | ✓ | | ✓ |
| 06 | 0...1.6 | ✓ | | ✓ |
| 07 | 0...2.5 | ✓ | | ✓ |
| 08 | 0...4 | ✓ | | ✓ |
| 09 | 0...6 | ✓ | | ✓ |
| 10 | 0...10 | ✓ | | ✓ |
| 11 | 0...16 | ✓ | ✓ | ✓ |
| 12 | 0...25 | ✓ | ✓ | ✓ |
| 13 | 0...40 | | ✓ | |
| 14 | 0...60 | | ✓ | |
| 15 | 0...100 | | ✓ | |
| 16 | 0...160 | | ✓ | |
| 17 | 0...250 | | ✓ | |
| 18 | 0...400 | | ✓ | |

| Code | Nominal pressure [bar] | Gauge | Sealed gauge | Absolute |
|------|------------------------|-------|--------------|----------|
| 19 | 0...600 | | ✓ | |
| 20 | -0.1...+0.1 | ✓ | | |
| 21 | -0.2...+0.2 | ✓ | | |
| 22 | -0.5...+0.5 | ✓ | | |
| 23 | -1...0 | ✓ | | |
| 24 | 0...-1 | ✓ | | |
| 25 | -1...+1 | ✓ | | |
| 26 | -1...+1.6 | ✓ | | |
| 27 | -1...+2.5 | ✓ | | |
| 28 | -1...+4 | ✓ | | |
| 29 | -1...+6 | ✓ | | |
| 30 | -1...+9 | ✓ | | |
| 31 | -1...+10 | ✓ | | |
| 32 | -1...+16 | ✓ | | |
| 33 | -1...+25 | ✓ | | |
| 34 | 0.8...2 | ✓ | | ✓ |

Ordering code

| Model | Range | Type | Output/Power supply | Pressure Port | Medium temperature |
|---------|-------|------------|---------------------------------|-----------------|--------------------|
| EPT2000 | code | G Gauge | 42 4...20mA/12...30VDC | 01 G 1/4 male | E1 -20 to +85°C |
| | | A Absolute | R4 RS485 Modbus RTU/12... 30VDC | 02 G 1/2 male | E2 -20 to +100°C |
| | | | HR 4...20mA+HART /12... 30VDC | 03 1/4NPT male | E3 -20 to +150°C |
| | | | | 04 1/2NPT male | |
| | | | | 05 PT 1/4 male | |
| | | | | 06 PT 1/2 male | |
| | | | | 07 M20x1.5 male | |
| | | | | 99 Custom | |

| Accuracy | Display | Electrical Connection | Label |
|----------------------|-------------------|-----------------------|-------------------|
| A1 0.1%FS | 1 LCD display | M M20x1.5 | S Standard |
| A2 0.25%FS(Standard) | 2 LED display | N 1/2"NPT | N Neutral packing |
| A3 0.5%FS | 0 Without display | | C Custom label |