

Model EPT3000-T series

High stability pressure transmitter
Stainless steel pressure sensor
Mass production, automated calibration

Materontek
Sensing and Internet of Things

Features

- ❑ The highest accuracy be $\pm 0.065\%$
- ❑ Overload pressure up to 60MPa
- ❑ Excellent overvoltage performance
 - overpressure of 1kPa nominal range chip: 1MPa
 - overpressure of 6kPa nominal range chip: 2MPa
- ❑ Flexible range of compression Range ratio up to: 100:1
- ❑ Excellent operability & convenient use
- ❑ Five-digit LCD with backlight
- ❑ View of units (Pa, kPa, MPa, bar, mbar, %, psi, mmH₂O)
- ❑ Quickly adjusted through built-in three buttons



Application

- ❑ Be suitable to measure liquid, gas or steam flow as well
- ❑ Process control systems
- ❑ Chemical industry
- ❑ Energy industry
- ❑ Machine building

Technical data

Performance

| | | |
|------------------------|---|--|
| Accuracy* | 0.065%FS@25°C(Min.) 0.1%FS@25°C(Typ.) | *Linearity (best straight line) + Hysteresis + Repeatability |
| Operating Temperature | -40 to 85°C | |
| Storage temperature | -40 to 90°C | |
| Temp. coeff - Zero | $\pm(0.08\% \text{range} + 0.055\% \text{ upper limit of range})$ | |
| Temp. coeff - Span | $\pm(0.08\% \text{range} + 0.055\% \text{ upper limit of range})$ | |
| Vibration | 20 g RMS(20 to 2000Hz) | |
| Shock | 100 g(10ms) | |
| Cycles | 10x10 ⁵ | |
| Effect of overpressure | $\pm(0.065\% \text{upper limit of range})/5\text{MPa}$ | |
| Long Term Stability | $\pm 0.05\% \text{upper limit of range/year}$ | |

Electrical @25°C

| | | |
|-----------------------------|---|--|
| Output signal / Supply | 2-wire 4...20mA+HART / V _S = 10.5... 45VDC | *Intrinsic safety explosion-proof DC10.5~26V |
| Load resistance | 250~600 DC 24V, include cable resistance | |
| Insulation Resistance | 100 MΩ@100VDC | |
| Load capacity | 0.55mF | |
| Load inductance | 3.3mH | |
| Spacing above power line | 15cm(please avoid parallel wiring) | |
| Saturation current | Upper limit 20.8mA, lower limit 3.8mA | |
| Adjustment function | The zero & full span point can be adjusted in situ through three-button from the top of the housing or be adjusted remotely through configuration software. | |
| EMC Test | IEC61000-6-2/IEC61000-6-3 | |
| Effect of Power supply | $\pm 0.005\% / 1\text{V}$ | |
| Damp | The time constant can be adjusted from 0 to 99.9 seconds | |
| Reverse polarity protection | No damage – no function | |

Physical Specifications

| | |
|-------------|--|
| Housing | Low copper aluminum die casting + polyurethane coating |
| Diaphragm | SUS316LSS, Hastelloy C-276, Tantalum |
| Sealing | NBR or Viton O-ring |
| Oil Filling | Silicone oil |
| Protection | IP67 |
| Weight | ~1.5kg(without cable) |

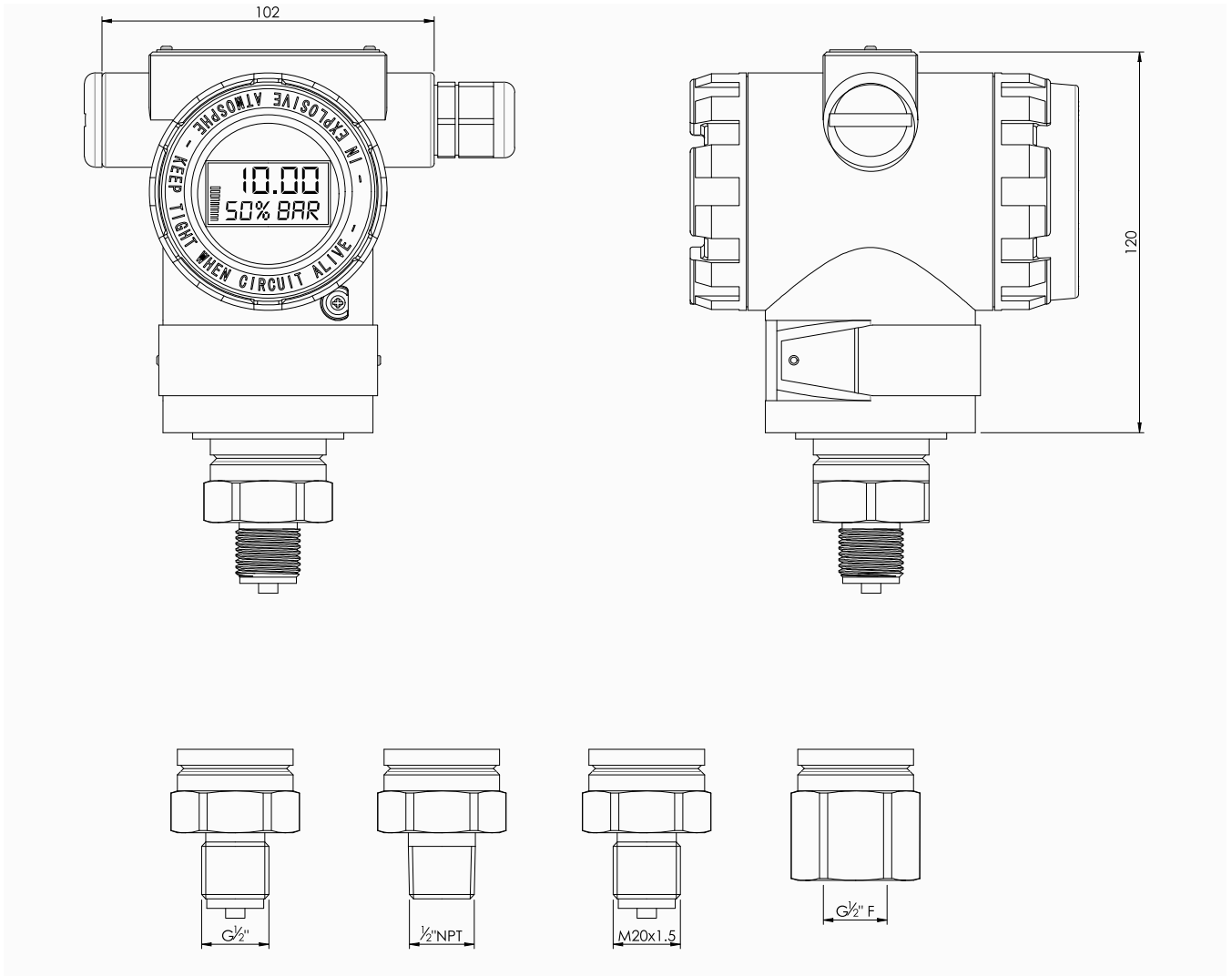
The listed specifications and dimensions are subject to change without prior notice

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Dimensions (All dimensions in mm)



Standard pressure range & URL

| Code | Nominal pressure [bar] | Gauge | Absolute | Overpressure [bar] |
|------|------------------------|-------|----------|--------------------|
| S1 | 0...0.06 | ✓ | | 10 |
| S2 | 0...0.1 | ✓ | | 20 |
| S3 | 0...0.4 | ✓ | ✓ | 40 |
| S4 | 0...1 | ✓ | ✓ | 70 |
| S5 | 0...4 | ✓ | ✓ | 70 |
| S6 | 0...40 | ✓ | ✓ | 100 |
| S7 | 0...400 | ✓ | | 600 |

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Ordering code

| | | |
|--------------|--|----------------------|
| Model | EPT3000-T Pressure transmitter | |
| Code | Pressure range | |
| S1 | 60 mbar | |
| S2 | 100 mbar | |
| S3 | 400 mbar | |
| S4 | 1 bar | |
| S5 | 4 bar | |
| S6 | 40 bar | |
| S7 | 600 bar | |
| 99 | Customized range | |
| Code | Output signal | |
| A | 4...20mA+HART Protocol | |
| Code | Accuracy | |
| 01 | 0.065%FS | URL>100mbar |
| 02 | 0.1%FS | |
| 03 | 0.2%FS | |
| 04 | 0.5%FS | |
| Code | Materials | |
| | Membrane | Filled liquid |
| 22 | 316LSS | Silicone oil |
| 23 | Hastelloy-C | Silicone oil |
| 24 | Tantalum | Silicone oil |
| 25 | 316LSS gold plating | Silicone oil |
| 26 | 316LSS | Fluorocarbon oil |
| Code | Mounting kit | |
| B0 | No | |
| B1 | L type mounting kit | |
| Code | Process connection | |
| D42 | G1/2" (male) | |
| D43 | 1/2"NPT(male) | |
| D44 | M20x1.5(male) | |
| D45 | 1/2"NPT(female) | |
| D46 | G1/2" (female) | |
| D99 | Customized | |
| Code | Electrical connection | |
| E1 | M20x1.5 | |
| E2 | 1/2"NPT | |
| Code | Meters | |
| M1 | LCD display | |
| Code | Sealing materials | |
| 01 | Fluororubber | |
| 02 | NBR | |
| Code | Explosion-proof | |
| N | No | |
| IA | Intrinsic safety and dust explosion-proof approval | |
| D | Flame-proof and dust explosion-proof approval | |
| Code | Label | |
| S | Standard | |
| N | Neutral packing | |
| C | Custom label | |