

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 $\pm 0.075\%$
- ❑ Excellent overvoltage performance
- ❑ Flexible range of compression Range ratio up to: 10:1
- ❑ 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*	0.075%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	10×10^5	
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 / $V_s = 10.5... 40\text{VDC}$	*Intrinsic safety explosion-proof DC10.5~26V
Load resistance	250~600 DC 24V, include cable resistance	
Insulation Resistance	100 M Ω @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, Titanium
Sealing	NBR or Viton O-ring
Oil Filling	Silicone oil/ Fluorocarbon oil/NA
Protection	IP67
Weight	~2kg(without cable)

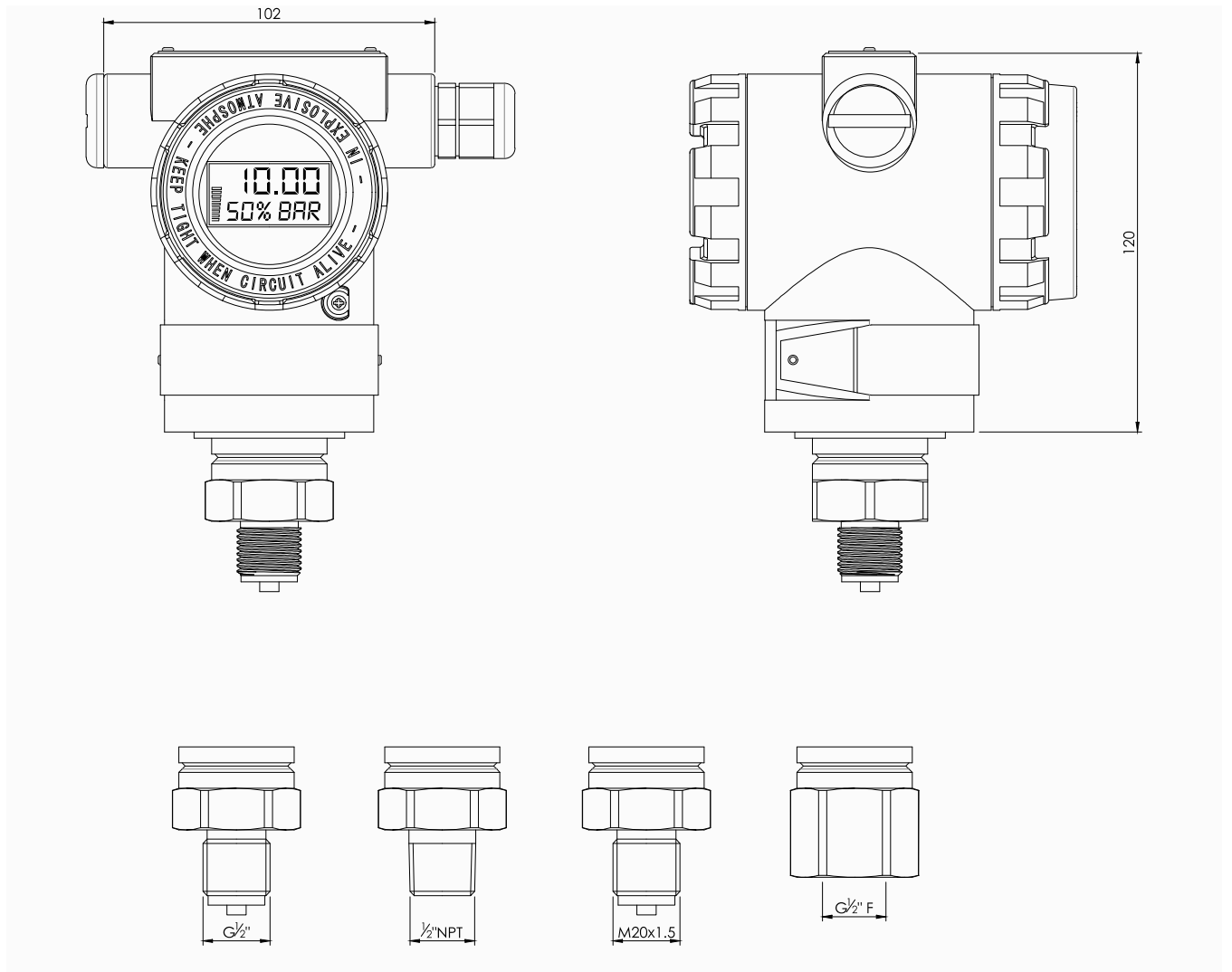
The listed specifications and dimensions are subject to change without prior notice

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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	✓		2
S2	0...0.4	✓	✓	8
S3	0...1	✓	✓	20
S4	0...4	✓	✓	40
S5	0...10	✓	✓	60
S6	0...40	✓	✓	100
S7	0...100	✓	✓	200
S8	0...400	✓	✓	600
S9	0...600	✓	✓	800

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Ordering code

Model		
EPT3000-T	Pressure transmitter	
Code	Pressure range	
S1	60 mbar	
S2	400 mbar	
S3	1 bar	
S4	4 bar	
S5	10 bar	
S6	40bar	
S7	100 bar	
S8	400bar	
S9	600bar	
99	Customized range	
Code	Pressure type	
G	Gauge pressure	
A	Absolute pressure	
Code	Output signal	
A	4...20mA+HART Protocol	
B	RS485 Modbus RTU	
C	4...20mA+RS485 Modbus RTU	
Code	Accuracy	
01	0.075%FS	URL>60mbar
02	0.1%FS	URL=60mbar
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
27	Titanium	NA
28	Ceramics	NA
29	17-4PHSS	NA
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	Exlosion-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	