

Model EPT4000 series

Electronic Pressure Switch
Switching output (PNP / NPN) configurable
Mass production, automated calibration

Materontek
Sensing and Internet of Things

Features

- ❑ Measuring ranges from 100mbar to 600bar
- ❑ Gauge pressure, Absolute pressure
- ❑ Accuracy: 0.5%FSO(Typ.)
- ❑ Calibrated and temperature compensated
- ❑ Adjustment ranges from 1 up to 600 bar
- ❑ Switching output (PNP / NPN) configurable
- ❑ Configurable analogue output
- ❑ 4 digits (-999 ... 9999) display

Application

- ❑ Hydraulic power unit
- ❑ Mechanical engineering
- ❑ Vacuum technology
- ❑ Filter monitoring



Technical data

Performance

Accuracy*	0.5%FS@25°C(Typ.)	*Linearity (best straight line) + Hysteresis + Repeatability
Operating Temperature	-20 to 85°C	
Compensated Temperature Range	-10 to 70°C	
Vibration	20 g RMS(20 to 2000Hz)	
Shock	100 g(10ms)	
Cycles	10x10 ⁵	
Long Term Stability	0.3 %FS	

Electrical @25°C

Output signal	4...20mA PNP&NPN, normally close (NC) or normally open (NO)
S1,S2 current output	<500mA
Power supply	12...30VDC
Current drain	max.30mA,24 VDC
Response time	<10ms
Voltage drop	<1V
Load resistance	<500Ω
Insulation Resistance	100 MΩ@100VDC
EMC Test	IEC61000-6-2/IEC61000-6-3
Reverse polarity protection	No damage - no function

Physical Specifications

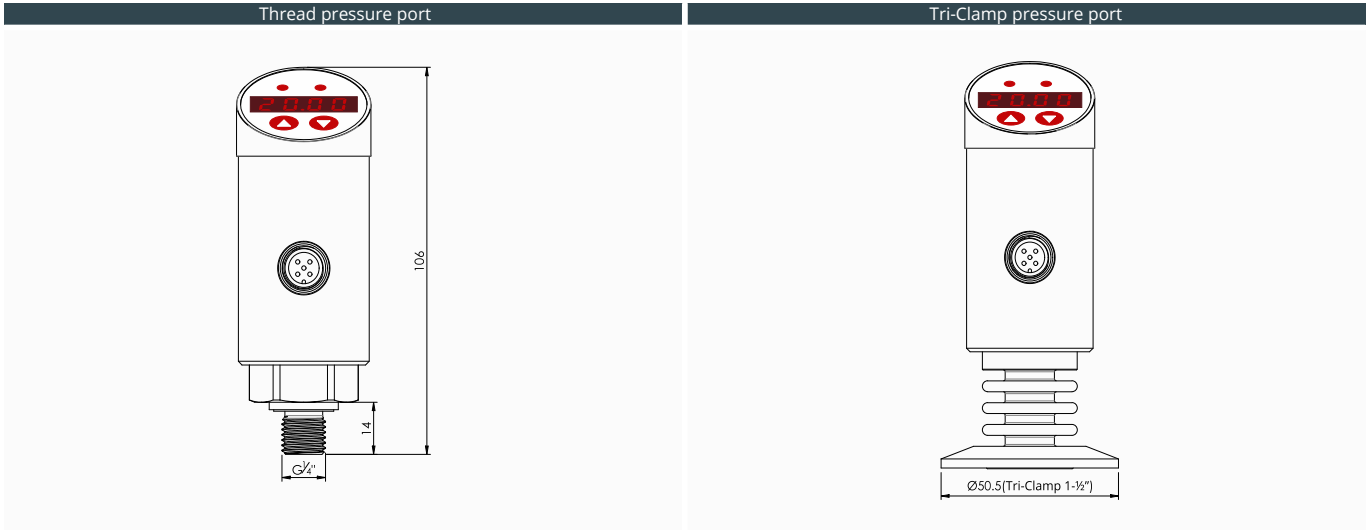
Housing	304 stainless steel
Diaphragm	316L stainless steel
Sealing	NBR or Viton O-ring
Oil Filling	Silicone oil
Protection	IP66
Weight	~300g(without cable)

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

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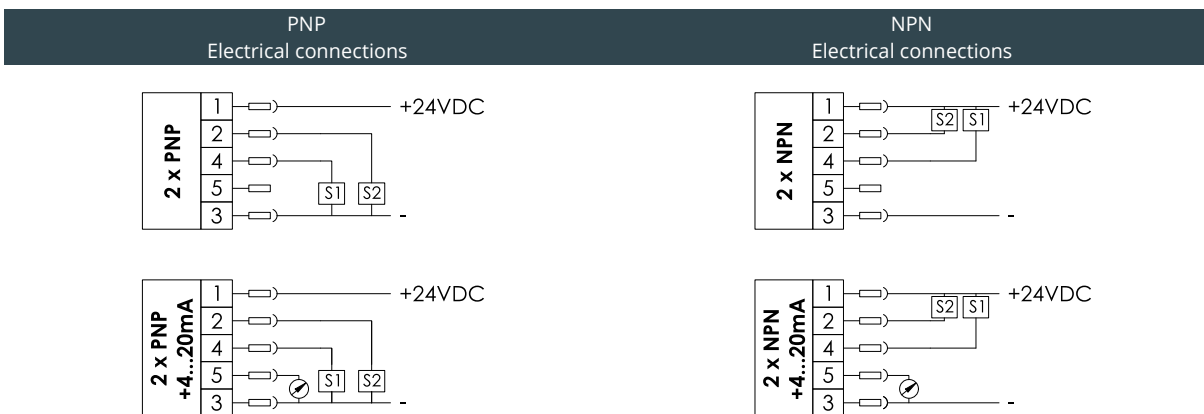
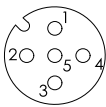
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Dimensions (All dimensions in mm)



Electrical connections

Connector	Signal	Pin
M12x1(5-pin)	Supply+	1/brown
	Supply-	3/blue
	Switching output S1	4/black
	Switching output S2	2/white
	4...20mA	5/gray



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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	Switch	Output/Power supply	Pressure Port	Electrical Connection
EPT4000	code	G Gauge	P PNP	S1 1 x switching output	01 G¼ male	E1 M12-5 pin connector/cable L=2m
		A Absolute	N NPN	S2 2 x switching output	02 G½ male	E2 M12-5 pin connector/cable L=5m
				S3 Analogue output 4...20mA	03 Tri-Clamp 1-½"	E3 M12-5 pin connector/cable L=10m
				S4 1 x switching output + 4...20mA	04 Tri-Clamp 2"	
				S5 2 x switching output + 4...20mA	05 G½ Flush	
					06 ½ NPT Flush	
					07 M20x1.5 Flush	
					99 Custom	

Accuracy	Label
A1 0.25%FS	S Standard
A2 0.5%FS(Standard)	N Neutral packing
	C Custom label