

Model DPM400 series

Differential Pressure Transmitter
Range 100mbar...25bar

Materontek
Sensing and Internet of Things

Features

- ❑ Measuring ranges from 100mbar to 25bar
- ❑ Differential pressure
- ❑ Accuracy: $\pm 0.25\%$ FSO(Typ.)
- ❑ Calibrated and temperature compensated
- ❑ Stainless steel pressure sensor
- ❑ Excellent overload pressure
- ❑ Output 4...20mA, 0...5VDC, RS485 Modbus, HART, I²C

Application

- ❑ Hydraulic and pneumatic
- ❑ Machine building
- ❑ Level measurement
- ❑ IoT pressure measurement



Technical data

Pressure range

Nominal pressure [P _N]	0.1bar	0.2bar	0.35bar	0.7bar	1 bar	2.5 bar	4 bar	6 bar	10 bar	16 bar	25 bar
Overpressure [Positive]	0.2bar	0.4bar	0.6bar	1.2bar	2 bar	4 bar	7 bar	10 bar	15 bar	30 bar	40 bar
Static pressure	50 bar	50 bar	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar	100 bar

Performance

Accuracy*	$\pm 0.25\%$ FS (typ.) $\pm 0.5\%$ FS (max.)	*Linearity (best straight line) + Hysteresis + Repeatability
Operating Temperature	-20 to 85°C	
Compensated Temperature Range	0 to 70°C	
Vibration	5 g RMS(20 to 2000Hz)	
Shock	100 g(10 ms)	
Long Term Stability	<0.2 %FS/year	

Electrical @25°C

Output signal / Supply	2-wire 4...20mA / V _S = 9...30VDC
	3-wire 1...5VDC / V _S = 9...30VDC
	3-wire 0.5...4.5VDC / V _S = 5VDC
	2-wire 4...20mA+HART / V _S = 12... 30VDC
	4-wire RS485 Modbus RTU / V _S = 12... 30VDC
4-wire I ² C / V _S = 3.3...5VDC	
Insulation Resistance	100 MΩ@100VDC
EMC Test	IEC61000-6-2/IEC61000-6-3
Reverse polarity protection	No damage - no function

Physical Specifications

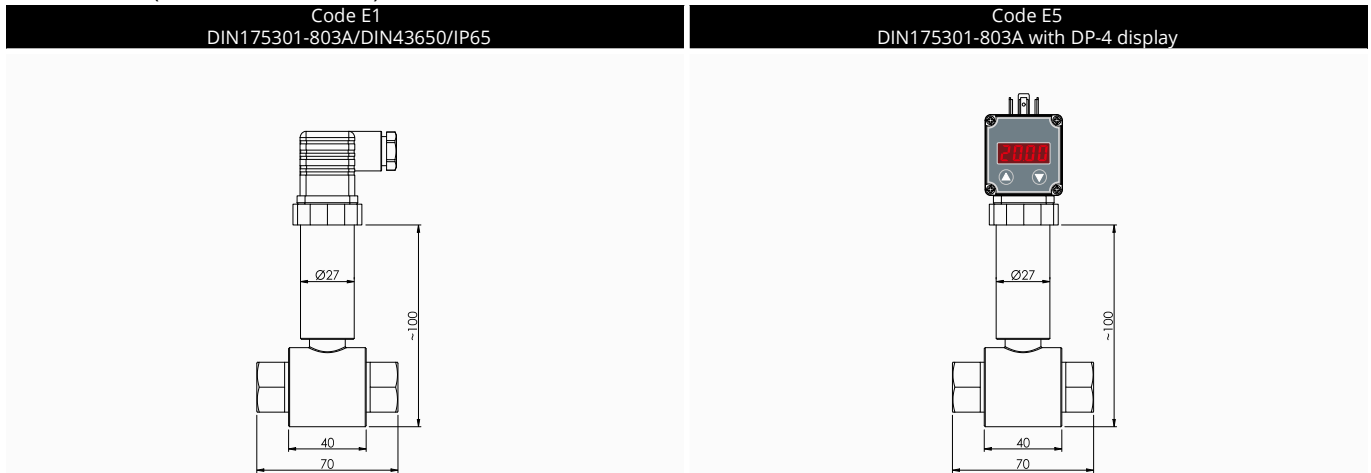
Housing	304 stainless steel
Diaphragm	316L stainless steel
Oil Filling	Silicone oil
Protection	IP65
Weight	~200g

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Dimensions (All dimensions in mm)



Electrical connections

DIN175301-803-A	4...20mA 2-wire	1...5VDC 3-wire	0.5...4.5VDC 3-wire	RS485 4-wire
+Vcc	1	1	1	1
OUT	2	3	3	-
GND	-	2	2	2
RS485A	-	-	-	3
RS485B	-	-	-	⊕

Connector M12x1(4-pin)	4...20mA 2-wire	1...5VDC 3-wire	0.5...4.5VDC 3-wire	RS485 4-wire
+Vcc	1	1	1	1
OUT	3	4	4	-
GND	-	3	3	3
RS485A	-	-	-	2
RS485B	-	-	-	4

Ordering code

Model	Range	Type	Output	Pressure Port	Electrical Connection
DPM400	01 0.1bar	D Differential	42 4...20mA/9...30VDC	01 G1/4" female	E1 DIN175301-803A/IP65
	02 0.2bar		15 DC 1...5V/9...30VDC	02 1/4"NPT female	E2 M12 connector/IP66
	03 0.35bar		05 DC 0...5V/9...30VDC	03 PT1/4" female	E3 Cable outlet,1.5m/IP66
	04 0.7bar		45 DC 0.5...4.5V/5VDC	04 G1/4" male	E4 Cable outlet,1.5m/IP68
	05 1bar		10 DC 0...10V/15...30VDC	05 G1/2" male	E5 DIN175301-803A with DP-4
	06 2.5bar		25 DC 0...2.5V/5VDC	06 1/4"NPT male	
	07 4bar		R4 RS485 Modbus RTU/12... 30VDC	99 customer	
	08 6bar		HR 4...20mA+HART/12... 30VDC		
	09 10bar		42 I ² C/3.3...5VDC		
	10 16bar				
	11 25bar				
	12 -0.1...0.1bar				
	13 -0.2...0.2bar				
	14 -0.5...0.5bar				
	15 -1...1bar				
99 customer					

Accuracy	Label
A1 0.1%FS	S Standard
A2 0.25%FS(Standard)	N Neutral packing
A3 0.5%FS	C Custom label