

Model VMEPT1120-W series

OEM Pressure transmitter

Stainless steel flush diaphragm

For viscous and particle-laden media



Features

- Measuring ranges from 100mbar to 200bar
- Gauge pressure, Absolute pressure
- Accuracy: $\pm 0.25\% \text{FSO(Typ.)}$, $\pm 0.5\% \text{FSO(Max.)}$
- Calibrated and temperature compensated
- Stainless steel flush diaphragm
- Output 4...20mA, 1...5 VDC, 0.5...4.5 VDC, RS485 etc.

Application

- Papermaking
- Process control systems
- Food and beverages
- Medical

Technical data

Performance	
Accuracy*	$\pm 0.25\% \text{FS@25}^\circ\text{C(Typ.)}$ $\pm 0.5\% \text{FS@25}^\circ\text{C(Max.)}^1$
Operating Temperature Range	-20 to 85°C, -20 to 125°C
Compensated Temperature Range	0 to 70°C
Temp. Coeff – Zero/Span	$\pm 0.75\% \text{FS[Typ.]}$, $\pm 1.5\% \text{FS[Max.]}$
Overpressure	150%FS
Vibration	20 g RMS(20 to 2000Hz)
Shock	100 g(11ms)
Cycles	10×10^5
Long Term Stability	$\pm 0.3\% \text{FS}$

Electrical @25°C	
Output signal / Supply	2-wire 4...20 mA / $V_s = 10...30 \text{ VDC}$
	2-wire 4...20 mA+HART / $V_s = 12...30 \text{ VDC}$
	3-wire 1...5 VDC / $V_s = 10...30 \text{ VDC}$
	3-wire 0...5 VDC / $V_s = 10...30 \text{ VDC}$
	3-wire 0...10 VDC / $V_s = 12...30 \text{ VDC}$
	3-wire 0.5...4.5 VDC / $V_s = 8...30 \text{ VDC}$
	3-wire 0.5...4.5 VDC ratiometric / $V_s = 5 \text{ V} \pm 0.1 \text{ VDC}$
	3-wire 0.5...2.5 VDC / $V_s = 3.3 \text{ V} \pm 0.1 \text{ VDC}$
	3-wire 0.5...2.5 VDC / $V_s = 5 \text{ V} \pm 0.1 \text{ VDC}$
	4-wire RS485 Modbus RTU / $V_s = 12... 30 \text{ VDC}$
	4-wire I ² C / $V_s = 3.3...5 \text{ VDC}$
Insulation Resistance	100 M Ω @100VDC
EMC Test	IEC61000-4-2/IEC61000-4-3
Reverse polarity protection	No damage – no function

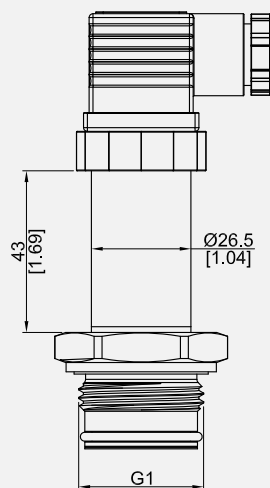
Physical Specifications	
Housing	SUS304 stainless steel
Diaphragm	SUS316L stainless steel
Oil Filling	Silicone oil
Protection	IP65
Sealing	NBR (Permissible temperature range: -30 to 85°C) (Standard) FKM (Permissible temperature range: -20 to 85°C)
Weight	~200g

¹⁾ Linearity (best straight line) + Hysteresis + Repeatability

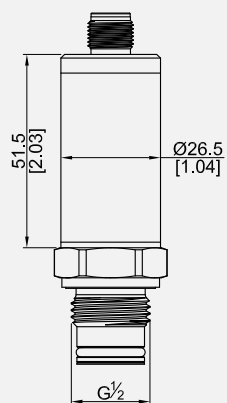


Dimensions in mm [in]

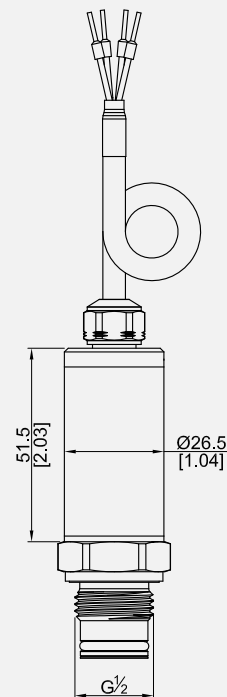
Code E1
DIN175301-803A/DIN43650/IP65



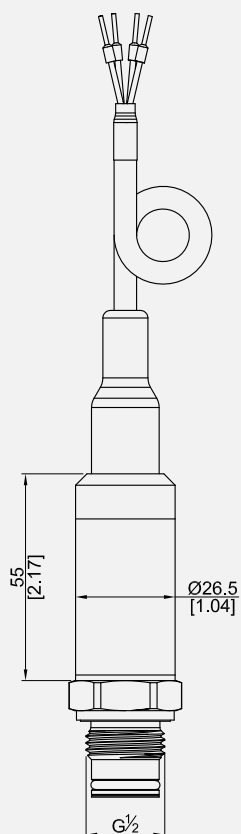
Code E2
Circular connector M12x1(4-pin)/IP66



Code E4
Cable outlet, 1.5m/IP67

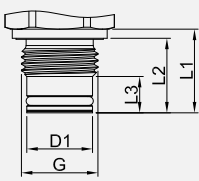


Code E5
Cable outlet, 1.5m/IP68

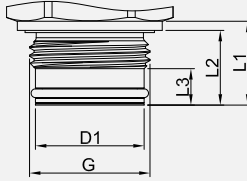


S0~D5 output: Length of housing increases by 30mm

Process connections in mm [in]

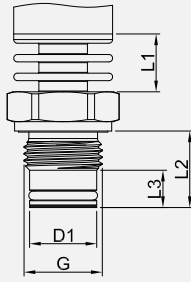


G	L1	L2	L3	D1
G 1/2	22.5	20.5	10	18



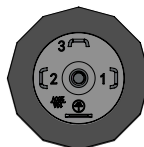
G	L1	L2	L3	D1
G1	22.5	20.5	10	30

Medium Temperature -20 to 125°C

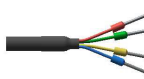


G	L1	L2	L3	D1
G 1/2	15.5	20.5	10	18
G1	15.5	20.5	10	30

Electrical connections

DIN175301-803A /DIN43650		4...20 mA	0...10 VDC 0...5VDC 0.5...4.5VDC	RS485
		2-wire	3-wire	4-wire
	+Vcc	1	1	1
	OUT	2	3	-
	GND	-	2	2
	RS485A	-	-	3
	RS485B	-	-	⊕

Circular connector M12x1(4-pin)		4...20 mA	0...10 VDC 0...5VDC 0.5...4.5VDC	RS485
		2-wire	3-wire	4-wire
	+Vcc	1	1	1
	OUT	3	4	-
	GND	-	3	3
	RS485A	-	-	2
	RS485B	-	-	4

Cable outlet		4...20 mA	0...10 VDC 0...5VDC 0.5...4.5VDC	RS485
		2-wire	3-wire	4-wire
	+Vcc	Red	Red	Red
	OUT	Green/Black	Yellow	-
	GND	-	Green	Green
	RS485A	-	-	Yellow
	RS485B	-	-	Blue

Range code

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		✓	✓

Code	Nominal pressure [bar]	Gauge	Sealed gauge	Absolute
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	Electrical Connection
VMEPT1120-W	Code ²⁾	G Gauge	S1 4...20mA / V _S =10...30VDC	E1 DIN175301-803A/DIN43650/IP65
			S2 DC 1...5V / V _S =10...30VDC	E2 Circular connector M12x1(4-pin)/IP66
		A Absolute	S3 DC 0...5V / V _S =10...30VDC	E4 Cable outlet,1.5m/IP67
			S4 DC 0.5...4.5V / V _S =8...30VDC	E5 Cable outlet,1.5m/IP68
			S5 DC 0.5...4.5V ratiometric / V _S =5 V±0.1 VDC	
			S6 DC 0.5...2.5V / V _S =5 V±0.1 VDC	
			S7 DC 0.5...2.5V / V _S =3.3 V±0.1 VDC	
			S8 DC 0...10V / V _S =12...30VDC	
			D1 4...20 mA+HART/V _S =12...30 VDC	
			D2 RS485 Modbus RTU/V _S =12...30 VDC	
			D3 RS485 Modbus RTU/V _S =3.6...5 VDC	
			D6 I ² C / V _S = 3.3...5 VDC ⁴⁾	

Pressure Port		Accuracy		Medium Temperature	
D1	G½ Flush	A1	0.1%FS	T1	-20 to 85°C
D2	G1 Flush	A2	0.25%FS	T2	-20 to 125°C
D3	G1-½ Flush	A3	0.5%FS(Standard)		
D4	M20x1.5 Flush				

²⁾ The pressure unit can be selected from mH₂O, inH₂O, psi, mbar, bar, kPa.

⁴⁾ I²C output, cable length ≤15m.

Accessory [Optional]		
Description	Version	Order number
Circular connector M12x1, 4-pin, straight 	With 2 m PVC cable	M124S2PV
	With 5 m PVC cable	M124S5PV
	With 2 m PUR cable	M124S2PU
	With 5 m PUR cable	M124S5PU
Circular connector M12 x 1, 4-pin, angled 	With 2 m PVC cable	M124A2PV
	With 5 m PVC cable	M124A5PV
	With 2 m PUR cable	M124A2PU
	With 5 m PUR cable	M124A5PU

