

Model VMEPT1120-C series

OEM Pressure transmitter
Stainless steel flush diaphragm
For viscous and particle-laden media



Features

- Measuring ranges from 100mbar to 25bar
- Gauge pressure, Absolute pressure
- Accuracy: $\pm 0.25\% \text{FSO}(\text{Typ.})$, $\pm 0.5\% \text{FSO}(\text{Max.})$
- 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	$\pm 0.25\% \text{FS}@25^\circ\text{C}(\text{Typ.})$ $\pm 0.5\% \text{FS}@25^\circ\text{C}(\text{Max.})$ ¹⁾
Operating Temperature Range	-20 to 85°C, -20 to 150°C
Compensated Temperature Range	0 to 70°C
Temp. Coeff – Zero/Span	$\pm 0.75\% \text{FS}[\text{Typ.}]$, $\pm 1.5\% \text{FS}[\text{Max.}]$
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 MΩ@100VDC
EMC Test	IEC61000-4-2/IEC61000-4-3
Reverse polarity protection	No damage – no function

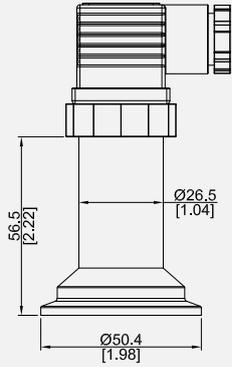
Physical Specifications	
Housing	SUS304 stainless steel
Diaphragm	SUS316L stainless steel
Oil Filling	Silicone oil
Protection	IP65
Weight	~300g

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

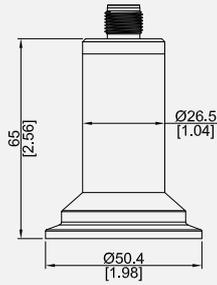


Dimensions in mm [in]

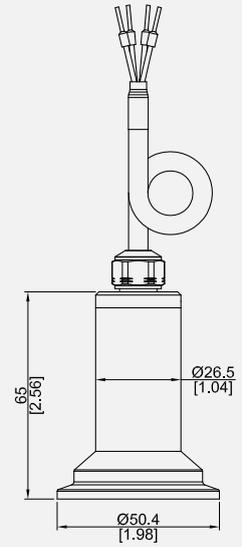
Code E1
DIN175301-803A/DIN43650/IP65



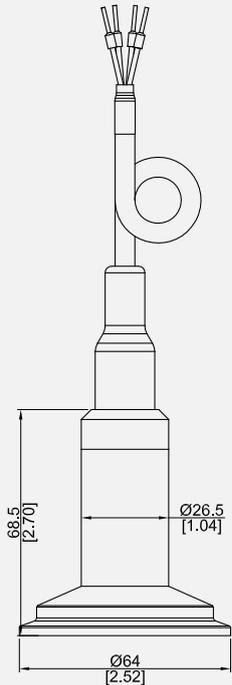
Code E2
Circular connector M12x1(4-pin)/IP66



Code E4
Cable outlet,1.5m/IP67



Code E5
Cable outlet,1.5m/IP68



D1~D3 output: Length of housing increases by 20mm

Process connections in mm [in]

	D	
Tri-Clamp 1-½"	50.5	
Tri-Clamp 2"	64	

Medium Temperature -20 to 150°C

	D	L
Tri-Clamp 1-½"	50.5	24.5
Tri-Clamp 2"	64	24.5

Electrical connections

DIN175301-803A /DIN43650	4...20 mA		0...10 VDC 0...5VDC 0.5...4.5VDC	RS485
	2-wire	3-wire	3-wire	4-wire
+Vcc	1	1	1	1
OUT	2	3	-	-
GND	-	2	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	3-wire	4-wire
+Vcc	1	1	1	1
OUT	3	4	-	-
GND	-	3	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	3-wire	4-wire
+Vcc	Red	Red	Red	Red
OUT	Green/Black	Yellow	-	-
GND	-	Green	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	✓		✓

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-C	Code ²⁾	G Gauge	S1 4...20mA / V _S =10...30VDC	E1 DIN175301-803A/DIN43650/IP65
		A Absolute	S2 DC 1...5V / V _S =10...30VDC	E2 Circular connector M12x1(4-pin)/IP66
			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
K1 Tri-Clamp 1-½"	A1 0.1%FS	T1 -20 to 85°C
K2 Tri-Clamp 2"	A2 0.25%FS	T3 -20 to 150°C ⁵⁾
	A3 0.5%FS(Standard)	T4 -20 to 200°C ⁵⁾

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

⁴⁾ I²C output, cable length ≤15m.

⁵⁾ Add Cooling element

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

