



IMP-PVDF

Industrial Pressure Transmitter for Aggressive Media

- Wetted parts, Ceramic, FFKM and PVDF
- Accuracy: $\pm 0.25\%$ FS BFSL
- Pressure ranges up to 870 psi
- 5vdc Ratiometric power supply option available
- Variety of Outputs including mV, Volts and mA
- Plastic housing and FFKM seal
- Low cost great for OEM applications

The industrial IMP-PVDF pressure transmitter has a piezo-resistive ceramic pressure sensor giving it excellent media compatibility. The housing is made from PVDF and has an FFKM seal to ensure the product is suitable for a wide range of aggressive media. Every device is temperature compensated and calibrated to the customer's specifications. The electronics incorporate a microprocessor based amplifier, meaning there are no adjusting pots and the electronics are very stable, especially in high vibration / shock applications. From measuring the level of acid in a storage tank to monitoring the pressure of pesticides in a pipe the IMP-PVDF is your sensor of choice for aggressive media.

There are many options available on the IMP pressure transmitter. These include the following :

- Pressure range and engineering units
- Pressure reference (G, SG or Abs)
- Output
- Accuracy (Non-linearity & hysteresis)
- Thermal accuracy
- Electrical connection

Suitable for the following applications:

- Storage Tank Gauging
- Laboratory Testing
- Agricultural
- Automotive Testing
- Seawater Applications
- OEM
- Environmental engineering

IMP-PVDF Pressure Transmitter

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Output Signal & Supply Voltage

Wire system	Output	Supply Voltage
2-wire	4 - 20mA	9 – 32V dc
3-wire	0 – 5V dc	9 – 32V dc
	0 – 10V dc	13 – 32V dc
	1 – 5V dc	9 – 32V dc
	1 – 10V dc	13 – 32V dc
	1 – 6V dc	9 – 32V dc
	0 – 6V dc	9 – 32V dc
	0.5 to 4.5V dc	5V dc
4-wire	Passive mV/V (un-rationalised)	2 – 30V dc
	2mV/V (rationalised)	2 – 30V dc
	10mV/V (amplified)	3 – 12V dc

Performance

Accuracy (Non-linearity & hysteresis)	<±0.25% / FS (BFSL) <±0.1% / FS (BFSL) optional	
Setting Errors (offsets)	2-wire	Zero & Full Scale, <±0.5% / FS
	3-wire	Zero & Full Scale, <±0.5% / FS
	4-wire	see table below
Permissible Load	2-wire	$R_{max} = [(V_S - V_{S \text{ min}}) / 0.02] \Omega$
	3-wire	$R_{min} = 10 \text{ k}\Omega$
	4-wire	$R_{min} = 11 \text{ k}\Omega$
Influence Effects	Supply	mV/V & 0.5 to 4.5V – Ratiometric, other outputs - <0.005 % FS / 1V
	Load	0.05 % FSO / kΩ

Electrical Protection

Supply reverse polarity protection	No damage but also no function
Electromagnetic compatibility	CE Compliant

Materials

Housing & process connection	PVDF
'O' ring seals	FFKM Chemraz
Diaphragm	Ceramic Al ₂ O ₃ 96 %
Media wetted parts	Housing and process connection, 'O' ring seal, diaphragm

Industrial Pressure Transmitter

Miscellaneous

Current consumption	2-wire, 3-wire & 4-wire	Limits at 25mA, Typ. 6mA, Typ.2 – 5mA
Weight	Approx. 100g	
Installation position	Any	
Operation Life	> 100 x 10 ⁶ cycles	
Insulation Resistance	>500M Ω at 50V dc	

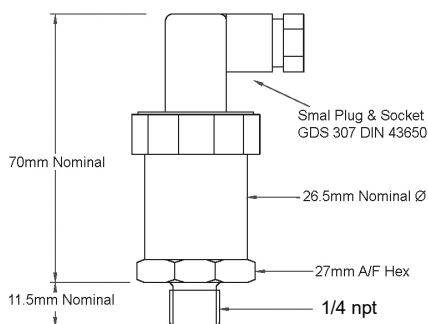
Typical Passive mV/V Outputs

Nominal pressure	Bar	1	2	5	10	20	50	100	250	400	600	700
Output	mV/V	2.0..3.5	2.0..4.0	2.4..4.5	3.6..6.0	2.5..4.0	4.0..6.5	3.1..4.8	3.1..4.8	3.1..4.8	3.7..5.7	4.3..6.7
Zero Setting Error	mV/V	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Span Setting Error	%	30	30	30	30	30	30	30	30	30	30	30

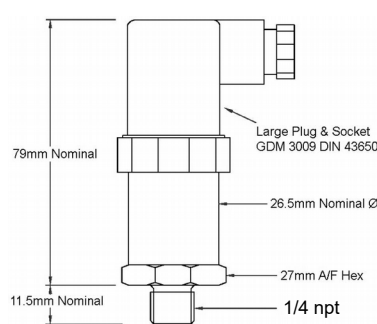
Wiring Designation

		Small Plug & Socket (Code A)	Large Plug & Socket (Code B)	IP66 Cable (Code C)	AMP 6-pin Bayonet (Code D)	IP68 Vented Cable (Code E)	Binder 6-pin connector (Code F)	M12x1, 4-pin connector (Code G)
2-wire	+ve Supply	Pin 1	Pin 1	Red	Pin 1	Red	Pin 1	Pin 1
	-ve Supply	Pin 2	Pin 2	Blue	Pin 2	Blue	Pin 2	Pin 2
	Ground	Earth Pin	Earth Pin	Green	Earth Pin	White	Pin 3	Pin 3
3-wire	+ve Supply	Pin 1	Pin 1	Red	Pin 1	Red	Pin 1	Pin 1
	-ve Supply	Pin 2	Pin 2	Blue	Pin 2	Blue	Pin 2	Pin 2
	+ve Output	Pin 3	Pin 3	Green	Pin 3	White	Pin 3	Pin 3
	Ground	Earth Pin	Earth Pin	Yellow	Earth Pin	Yellow	Pin 4	Pin 4
4-wire	+ve Supply	Pin 1	Pin 1	Red	Pin 1	Red	Pin 1	Pin 1
	-ve Supply	Pin 2	Pin 2	Blue	Pin 2	Blue	Pin 2	Pin 2
	+ve Output	Pin 3	Pin 3	Green	Pin 3	White	Pin 3	Pin 3
	-ve Output	Earth Pin	Earth Pin	Yellow	Pin 4	Yellow	Pin 4	Pin 4

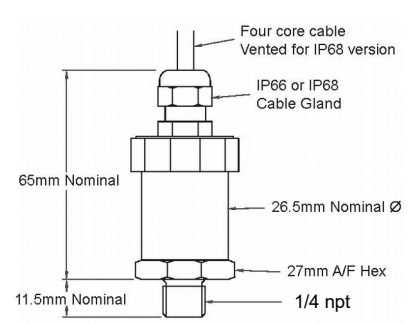
Electrical Connections



Small Plug & Socket
IP65, GDS 307 DIN 43650



Large Plug & Socket
IP65, GDM 3009 DIN 43650



Cable Gland Assembly
IP65 gland, screened PVC industrial cable