

- Flush mount stainless steel design
- Up to 60 Bar pressure range
- High precision $\leq 0.35\%$ BFSL
- Programmable for zero point (offset), characteristics and output options
- Wide choice of output signals



The CIT-F range of pressure sensors guarantee a wide application field in a high accuracy, rugged and compact design. The stainless steel membrane is completely vacuum-sealed, extremely burst resistant and applicable for all standard media across hydraulics, pneumatics, environmental engineering, process technology, semiconductor technology and automotive engineering.

As part of the stringent manufacturing process, all CIT-F pressure transducers are individually pressure and temperature tested to conform to DIN EN ISO 9001:2008. With compensation and adjustment performed electronically these pressure transmitters are characterised by a very low total error and excellent long-term stability.

With the precision of modern electronics the measured data is captured and processed very accurately. The measuring range can be set up through the digital interface, and with permanent magnets the zero point can be easily and securely adjusted at any time.

Specification

Pressure ranges	bar	0.1, 0.16, 0.25, 0.4, 0.6, 1.0, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60		
Over pressure *	bar	Max. 1.5 times / 1.2 times - depending on pressure range		
Burst pressure *	bar	2 times / 1.5 times - depending on pressure range		
Kind of pressure		Gauge pressure		
Wetted parts		Stainless steel 316L		
Weight	g	app. 200		
Supply voltage		10...32V-> 4-20mA 12-32VDC-> 0...10V 8...32VDC-> 0...5V		
Output signals		4...20 mA - 2 wire. 0...5 V - 3 wire. 0...10V - 3 wire. Others on request		
Adjustability of zero		Straightforward zero correction by using a magnet		
Accuracy **	% FS	0.45% limit point / 0.35% BFSL (Including non-linearity, zero point and full scale error, hysteresis, non-linearity and repeatability). Compensation measurement and adjustment for vertical mounting position		
Non-linearity ***	% FS	0.1% BFSL		
Repeatability	% FS	0.1		
Long-term stability	% FS	0.1 1-year stability at reference conditions		
Permissible temperatures	Media temperature	°C	-20...+ 100	
	Ambient temperature	°C	-20...+ 80	
	Storage temperature	°C	-20...+ 100	
Compensated temp. range		°C	-20...+ 80	
Temperature coefficient	zero	% FS	0.15 / 10K	
	FS	% FS	0.15 / 10K	
CE-conformity	Pressure equipment directive		2014/68/EU	
	EMC directive		2014/30/EU	
	Shock resistance	g	1000 to IEC 60068-2-27	mechanical
	Vibration resistance	g	20 to IEC 60068-2-6	resonance
Wiring protection	Overvoltage	VDC	32	
	Short-circuit strength		Out+ / U _B ⁻ (for 1s)	
	Reverse polarity		U _B ⁺ / U _B ⁻	

* Others on request

** Special custom design with optional better accuracy on request

*** Integral linearity error (FS = Full Scale, BFSL = Best Fit Straight Line)

Ordering information

(Please use the characters in the chart below to construct your product code)

Sample Code: **CIT-F - 1 - B - A - A -xxxxx**

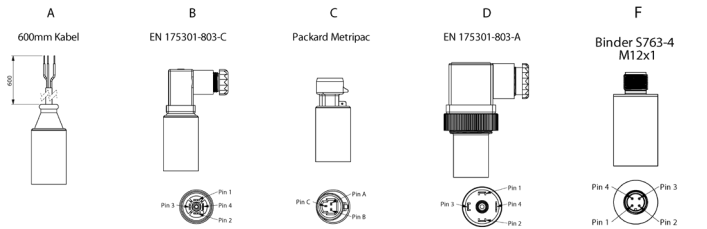
Series	Output Signal	Pressure type	Process Connection	Electrical Connector	Pressure range
CIT-F	1 = 0-10VDC 2 = 4-20mA 3 = 1-5VDC 4 = 0-5VDC 5 = 0.5 - 4.5VDC	B = Gauge V = Vacuum S = Sealed reference	A = G1/2B-Form E 60bar B = G1B-Form E	A = 600mm standard cable B = DIN EN 175301-803 C C = Packard Metripac D = DIN EN 175301-803 A F = M12x1 4poles	See table below

Custom options available on request

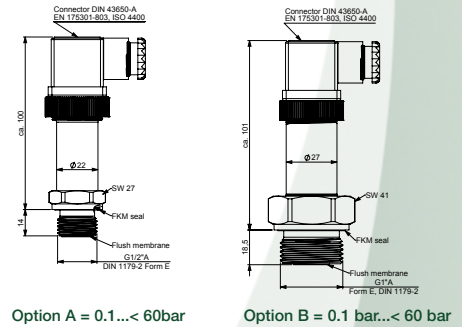
Pressure Range															
Bar	0,1	0,16	0,25	0,4	0,6	1,0	1,6	2,5	4	6	10	16	25	40	60
Order Code	00010	00016	00025	00040	00060	00100	00160	00250	00400	00600	01000	016	02500	04000	06000

Dimensions and wiring

Electrical connection



Typical dimensions



Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
DIN EN 175301-803-A and C	0.5 - 4.5V . 1 - 5 V . 0 - 10 V	+ Supply	- Supply	Output +	-
	4..20mA	+ Supply	Current output -	N/A	-
Round connector M12x1 A	0.5 - 4.5V . 1 - 5 V . 0 - 10 V	+ Supply	N/A	- Supply	Output +
	4..20mA	+ Supply	N/A	Current output -	N/A
Packard Metripac	Output	PIN A	PIN B	PIN C	-
	0.5 - 4.5V . 1 - 5 V . 0 - 10 V	- Supply	+ Supply	Output +	-
Cable assembly	Output	Red	Black	White	-
	0.5 - 4.5V . 1 - 5 V . 0 - 10 V	+ Supply	- Supply	Output +	-
	4..20mA	+ Supply	Current output -	N/A	-

Installation

The zero can be set easily with a magnet within $\pm 10\%$ of the nominal range.

For zero point correction a permanent magnet is held to the marked position on the pressure transmitter for $\frac{1}{2}$ to $2\frac{1}{2}$ minutes after the power is turned on. The pressure applied at this time must be less than 12% of the nominal pressure range. This pressure value is saved as a new zero point. A magnetic field applied outside the time window does not affect the setting. This process can only be repeated after switching off and restarting the supply voltage.

Safety information

When installing, commissioning and operating these pressure sensors always observe the relevant safety regulations (for example. DIN VDE 0100).

