FMP7100 Series
Flush Diaphragm Industrial Pressure Transmitter



SPECIFICATIONS

- Flush diaphragm
- Compact and robust
- High response frequency: 1 kHz
- CE and Waterproof
- Gauge pressure and compound pressure modes
- High accuracy, wide temperature range
- High overload capability

FEATURES

- Multiple corrosion-resistant materials available: SST316L, HC276, Inconel718, Inconel625
- Oil-free hard flush diaphragm
- Reverse polarity protection
- Output short-circuit protection
- Non-linearity up to ±0.25%
- Combined accuracy up to ±1%
- Compensated temperature: -20°C...+85°C
- Operating temperature: -40°C...+125°C

APPLICATIONS

- Semiconductor, LCD
- Pickling, electroplating technology
- Coatings, polyurethane equipment
- Food and pharmaceutical equipment
- Mud/slurry, slurry pumps, coal slurry, pulp
- Crude oil, asphalt
- Wastewater treatment, seawater treatment
- Engine manufacturing

STANDARD RANGES

Range (psi)	Range (Bar)	Gage	Seal	Absolute	Compound
0...75	0...5	•			•S
0...100	0...7	•			•S
0...150	0...10	•			•S
0...250	0...16	•			
0...500	0...35	•			•
0...1000	0...70	•			•
0...1500	0...100	•			•
0...2250	0...150	•			•
0...3000	0...200	•			•
0...5000	0...350	•			•
0...7500	0...500	•			•
0...10000	0...700	•			•

Note: Intermediate ranges available upon request. For "•S" ,plesae confirm with factory.

PERFORMANCE SPECIFICATIONS

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNIT	NOTES
Accuracy (combined non linearity, hysteresis, and repeatability)	-0.2	±0.2	0.2	%F.S.BFSL	@ 25°C
Zero Error	-0.5	±0.5	0.5	%F.S.BFSL	@ 25°C
Full Scale Error	-0.5	±0.5	0.5	%F.S.BFSL	@ 25°C
Isolation (Body to any Lead)	100			MΩ	@ 250VDC
Pressure Cycles	$1X10^7$			0~FS Cycles	
Proof Pressure	3X		20k psi	Rated	
Burst Pressure	5X		20k psi	Rated	
Long Term Stability (1 year)	-0.25		0.25	%F.S	
Total Error Band	-1.0	±1.0	1.0	%F.S	Over compensated temp range
Compensated Temperature	-20		85	°C	
Operating Temperature	-40		125	°C	Except cable 105°C max
Storage Temperature	-40		125	°C	Except cable 105°C max
Load Resistance (RL)	RL > 100k			Ω	Voltage Output
Load Resistance (RL)	<Supply Voltage -9V) / 0.02A			Ω	Current Output
Current Consumption			5	mA	Voltage Output
Rise Time (10% to 90%)	<2ms (Voltage Output); <3ms (Current Output); Without Snubber				
Pressure Port Material	316L,C276,Inconel625,Inconel625				
Shock	50g, 11msec Half Sine Shock per MIL-STD-202G, Method 213B, Condition A				
Vibration	±20g, MIL-STD-810C, Procedure 514.2-2, Curve L				

Notes: For custom configurations, please consult factory.
Pressure range under 0...70bar, customer to ensure venting through mating connector.

Compensated Temperature: The temperature range over which the product will produce an output proportional to pressure within the specified performance limits.

Operating Temperature: The temperature range over which the product will produce an output proportional to pressure but may not remain within the specified performance limits.

Storage Temperature: The temperature range over which the product can be stored safely in occasions without pressure applied or power input and remains rated performance. Beyond this temperature range may cause permanent damage to the product.

All configurations are built with supply voltage reverse and output short-circuit protections.

CE Compliance (just for reference)

EN 55022 Emissions Class A & B

IEC 61000-4-2 Electrostatic Discharge Immunity (8kV contact/15kV air)

IEC 61000-4-3 Radiated, Radio-Frequency Electromagnetic Field Immunity (10V/m, 80M-1GHz)

IEC 61000-4-4 Electrical Fast Transient Immunity (1kV)

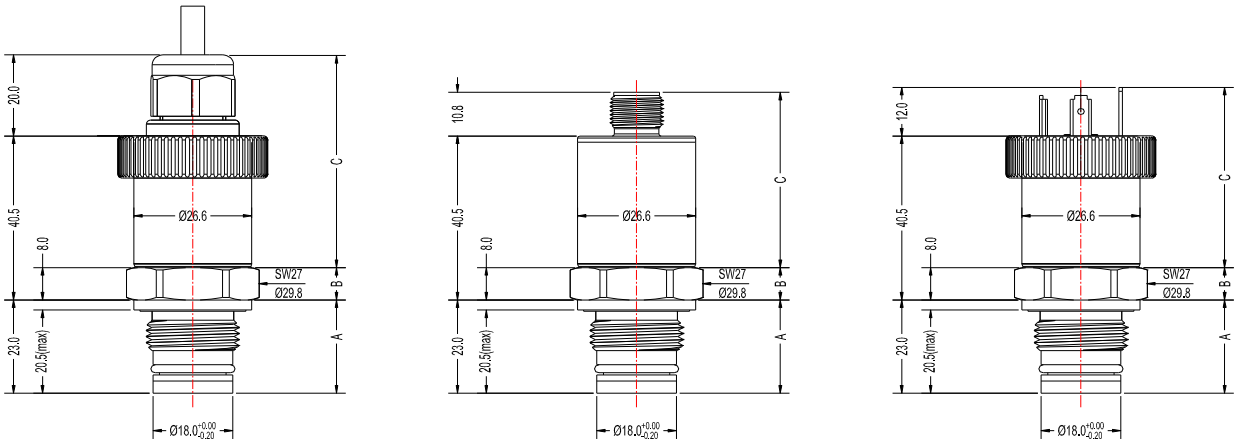
IEC 61000-4-5 Surge Immunity (V+ to V-: ±2KV/42Ω; L to Case: ±1KV/12Ω; V- to V0: ±1KV/42Ω)

IEC 61000-4-6 Immunity to Conducted Disturbances Induced by Radio Frequency Fields (150K~80MHz, 10V level for voltage output models, 3V level for current output model)

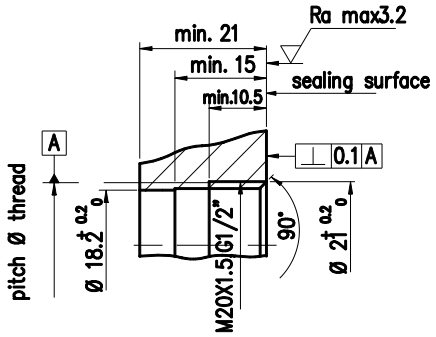
IEC 61000-4-9 Pulse Magnetic Field Immunity (100A/m peak)

For all CE compliance tests, max allowed output deviation ±1.5 %F.S. (Just Factory Testing)

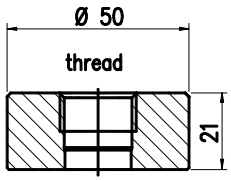
Dimensions: [mm]



Installation Dimensions: [mm]



G1/2" DIN EN ISO 1179-1



Socket Weld Flange

OUTPUTS

CODE	OUTPUT SIGNAL	SUPPLY VOLTAGE
1	0.5 - 4.5V	5 ± 0.25V
	RATIOMETRIC	PROTECTED to 16V
2	1 - 5V	8 - 36V
3	4 - 20mA	9 - 36V
4	0 - 5V	8 - 36V
5	0 - 10V	13 - 36V
6	1 - 6V	8 - 36V
7	0.5 - 4.5V	7.5- 36V
I	I²C	3.3V or 5V
R	RS485	24V

WEATHERPROOF

WEATHER-PROOF RATING		
CODE	CONNECTION TYPE	IP CODE
1	Cable	IP67
4	M12	IP67
5	FORM A	IP65

Note: Waterproof rating of pressure transmitter with vent is IP65.

WIRING

Current Output Wiring					
CONNECTION	**+SUPPLY**	**-SUPPLY**	**NA**	**GND-Case**	**P REF VENT**
Cable	RED	BLACK	/	Shield	Hole Through Housing
M12	1	2	3	4	Hole Through Connector
FORM A	1	2	3	4	

电压输出接线					
CONNECTION	**+SUPPLY**	**-SUPPLY**	**GND**	**GND-Case**	**P REF VENT**
Cable	RED	WHITE	BLACK	Shield	Hole Through Housing
M12	1	3	2	4	Hole Through Connector
FORM A	1	3	2	4	

CONNECTION TYPES

CONNECTION TYPES			
CONNECTION	**DESCRIPTION**	**MATING HOUSING P/N**	**MATING TERMINAL PIN**
Cable	4-WIRE,22 AWG, UNSHIELDED,PVC,105℃	-	-
M12	BINDER SERIES 713, 09 3431 77 04 OR EQUIV	4-POS FEMALE Connector	-
FORM A	OMAL ARB03S or ARB03R	OMAL AHB6733 3+PE	-

Note:

Transmitter of gage pressure type requires vent to atmosphere on the pressure reference side.

This is accomplished via cable from the transmitter (the end of the cable should be terminated to clean and dry area) or through the customer mating connector/cable assembly which has internal vent path.

ORDERING INFORMATION

FMP71	3	5	-	5	0	1	A	-	035B	G
Model	**Output**	**Connection**	-	**Port Material**	**Snubber**	**Label**	**Pressure Port**	-	**Pressure Range**	**Pressure Type**
FMP71	1= 0.5-4.5V RATIOMETRIC 2= 1-5V 3= 4-20mA 4= 0-5V 5= 0-10V 6= 1-6V 7= 0.5-4.5V I= I²C R= RS485 X= Customer Special	1= Cable 4= M12 5= FORM A X= Customer Special		3= 316L Integral 5= 316L Screw+ C276 Diaphgram 6= 316L Screw+ 625 Diaphgram 7= 316L Screw+ 718 Diaphgram C= C276 Integral D= 625 Integral E= 718 Integral X= Customer Special	0= No Snubber	0= No Label 1= Adhesive Label 2= Laser Marking	A= G1/2 DIN3852 X= Customer Special		0...35 Bar B= Bar M= Mpa P= PSI K= Kpa	G= Gauge C= Compound

Note: For I²C and RS485 parameters, please contact the factory for confirmation.

For shielded cable or other connector requirements, please consult the factory.