SPECIFICATIONS

- High Accuracy
- Compact
- Variety of Pressure Ports and Electrical Configurations
- Optional damper
- CE Compliant and Weatherproof
- Gage,Compound
- Excellent Stability

FEATURES

- Heavy Industrial
- Integral Pressure Cavity，No leakage
- Reverse Polarity Protection on Input
- Short Circuit Protection on Output
- Up to ±0.25% Accuracy
- Up to ±0.5% Total Error Band
- Compact Outline
- -40°C to +125°C Operating Temperature
- 0°C to +70°C Compensated Temperature

APPLICATIONS

- Industrial Process Control and Monitoring
- Advanced HVAC Systems
- Refrigeration Systems
- Automotive Test Stands
- Off-Road Vehicles
- Pumps and Compressors
- Hydraulic/Pneumatic Systems
- Agriculture Equipment
- Energy Generation and Management

STANDARD RANGES

Range (psi)	Range (Bar)	Gage	Seal	Absolute	Compound	
0...100	0...7	•				●S
0...150	0...10	•				●S
0...250	0...16	•				●S
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	•			•	
0...15000	0...1000	•			•	●S
0...22000	0...1500	•			•	●S
0...36500	0...2500	•			•	●S

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)	-0.3	±0.25	0.3	%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			Rated	
Burst Pressure	5X		20k psi	Rated	
Long Term Stability (1 year)	-0.25		0.25	%F.S	
Total Error Band	-1.5	±1.0	1.5	%F.S	Over compensated temp range
Compensated Temperature	0		70	°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			10	mA	Voltage Output
Rise Time (10% to 90%)	<2ms (Voltage Output); <3ms (Current Output); Without Snubber				
Pressure Port Material	17-4PH+SST304 or 17-4 Integral Screw				
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 specifiedperformance limits.

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

Storage Temperature: The temperature range over which the product can be stored safely in occasions without pressure applied or power nput 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)

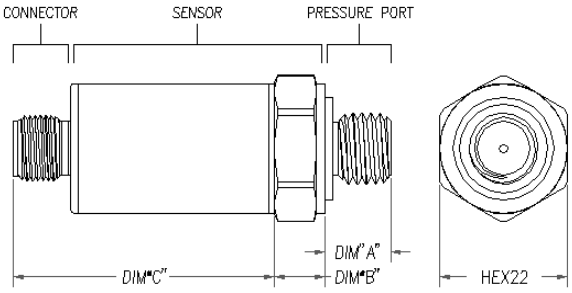
IEC 61000-4-6 Immunity to Conducted Disturbances Induced by Radio Frequency

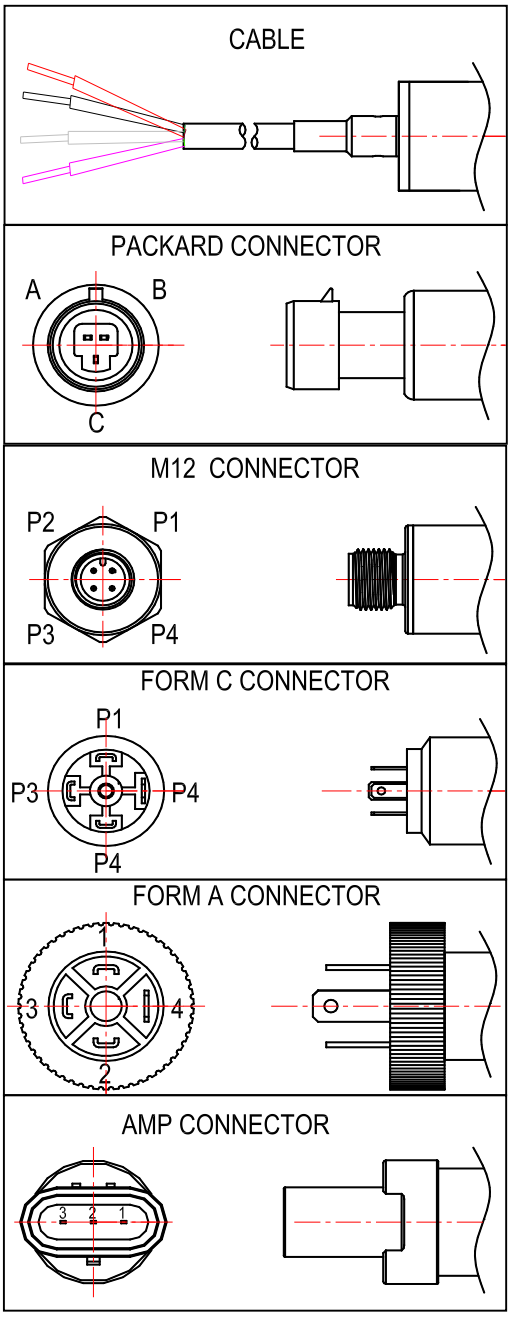
Fields (150K~80MHz, 10V level for voltage output models, 3V level for current output model)

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]





CODE	CONNECTION TYPE	DIM C (MAX)
1	Cable	1.97 [50.0]
2	Packard A	2.10 [53.5]
3	Packard B	2.10 [53.5]
4	M12	1.71 [43,5]
5	FORM A	1.93 [49.0]
6	FORM C	1.97 [50.0]
8	AMP	2.52 [64.0]

CODE	PRESSURE PORT TYPE		
	PORT	DIM A	DIM B
1	G1/4 JIS B2351	0.472 [12.00]	0.3 [8.0]
2	M20 x 1.5 mm ISO 6149-2	0.661 [16.8]	0.3 [8.0]
3	1/4-18 NPT	0.600 [15.24]	0.3 [8.0]
4	7/16-20UNF FEMALE SAE J513 STRAIGHT THREAD WITH INTEGRAL VALVE DEPRESSOR	0.687[17.5]	0.3 [8.0]
5	M14 x 1.5 mm ISO 6149-2	0.433 [11.0]	0.3 [8.0]
6	1/8-27 NPT	0.390 [9.91]	0.3 [8.0]
7	M12 x 1.5 mm ISO 6149-2	0.433 [11.0]	0.3 [8.0]
8	M10 x 1.0 mm ISO 6149-2	0.374 [9.5]	0.3 [8.0]
9	G1/4 DIN 3852 FORM E GASKET DIN3869-14 NBR	0.512 [13.00]	0.3 [8.0]

WEATHERPROOF

WEATHER-PROOF RATING		
CODE	CONNECTION TYPE	IP CODE
1	Cable	IP67
2	Packard A	IP66
3	Packard B	IP66
4	M12	IP67
5	FORM A	IP65
6	FORM C	IP66
8	AMP	IP66

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

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

WIRING

Current Output Wiring				
CONNECTION	**+SUPPLY**	**-SUPPLY**	**NC.PINS**	**P REF VENT**
Cable	RED	BLACK	WHITE (GREEN)	Hole Through Housing
Packard A	A	B	C	Hole Through Connector
Packard B	B	A	C	
M12	1	2	3,4	
FORM A	1	2	3,4	
FORM C	1	2	3,4	
AMP	1	3	2	

Voltage Output Wiring					
CONNECTION	**+SUPPLY**	**+OUTPOT**	**COMMON**	**NC.PINS**	**P REF VENT**
Cable	RED	WHITE	BLACK	GREEN	Hole Through Housing
Packard A	A	C	B	-	Hole Through Connector
Packard B	B	C	A		
M12	1	3	2	4	
FORM A	1	3	2	4	
FORM C	1	3	2	4	
AMP	1	3	2	-	

CONNECTION TYPES

CONNECTION TYPES			
CONNECTION	**DESCRIPTION**	**MATING HOUSING P/N**	**MATING TERMINAL PIN**
Cable	4-WIRE,22 AWG, UNSHIELDED,PVC,105°C	-	-
Packard	3-PIN METRI-PACK 150	12078090	12103881, QTY 3
M12	BINDER SERIES 713, 09 3431 77 04 OR EQUIV	4-POS FEMALE Connector	-
FORM A	OMAL ARB03S or ARB03R	OMAL AHB6733 3+PE	-
FORM C	INDUSTRIAL STANDARD 8.0MM FORM C	HTP AHB6733 3+PE	-
AMP		174357-2 & 174358-7	171630-1 (AWG 20~24) 171662-1 (AWG 16~20) QTY 3

Notes: 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

M53	3	5	-	1	0	1	9	-	500P	G
Model	**Output**	**Connection**	-	**Port Material**	**Snubber**	**Label**	**Pressure Port**	-	**Pressure Range**	**Pressure Type**
M53	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 X= Customer Special	1= Cable 2= Packard A 3= Packard B 4= M12 5= FORM A 6= FORM C 8= AMP X= Customer Special		1= 304Screw+ 17-4 Diaphgram 2= 17-4 Integral Screw X= Customer Special	0= No Snubber 1= With Snubber	0= No Label (OEM) 1= Adhesive Label 2= Laser Marking	1= G1/4 JIS B2351 2= M20 x 1.5 3= 1/4-18 NPT 4= 7/16-20UNF FEMALE SAE 5= M14 x 1.5 6= 1/8-27 NPT 7= M12 x 1.5 8= M10 x 1.0 9= G1/4 DIN 3852 A= G3/8 JIS B2351 X= Customer Special		0...500psi B= Bar M= Mpa P= PSI K= Kpa	G= Gauge S = Sealed (> 500PSI) C= Compound

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