

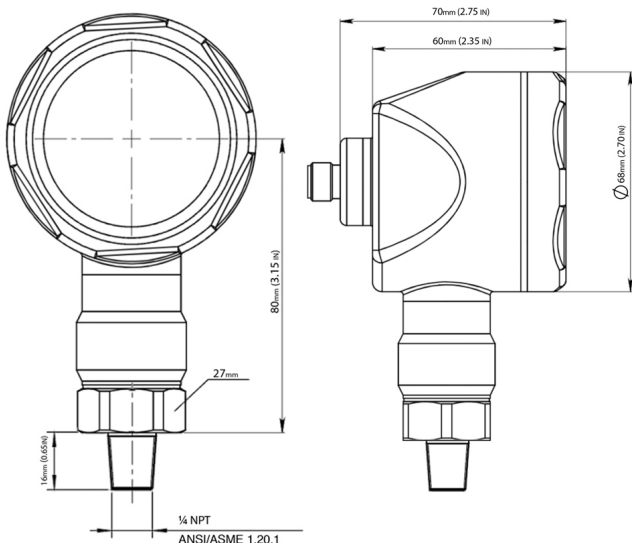
Pressure Transmitter with Display,
Industrial, Rangeable

Product Details

The OMEGA PX3005 is a compact, rangeable, pressure transmitter ideal for monitoring pressures in process automation, hydraulic systems, compressors, pumps and in tank level applications where consistent, reliable pressure measurement is essential. The PX3005 utilizes proven MEMs piezoresistive pressure sensors coupled to advanced microprocessing to provide superior accuracy and performance. The rugged 316 stainless-steel enclosure is IP67 rated making it suitable for washdown environments. A 5 digit backlit LCD allows for full precision representation of process variable. Available in ranges from 1 psi to 15,000 psi, the clever transmitter module allows for configuration of the 4-20 mA signal, display of input or output, and choice of 19 measurement units. The output signal can be adjusted to re-range the transmitter or “tare” unwanted fluid head preloads. Rangeability is capable of adjusting zero and span are from -100% to 100% FS URL (Upper Range Limit) with a minimum span of 30% URL. This means a 15 psi transducer can have the zero set between -15 psi to FS 15 psi. For example, zero could be set for -15 psi and maximum 15 psi so the output would be 4 mA at -15 psi, midpoint 12 mA would be 0 psi and 20 mA would be 15 psi.

Features

- Compact Size
- IP67 Environmental Rating
- 316SS Wetted Parts
- Scale to Display 1 of 19 Engineering Units
- Accuracy +/- 0.2% URL
- Choose Display Mode of Process Variable, mA, or %
- Calibration Report Included (Standard)



Product Number	Pressure Range	Pressure Type
PX3005-005AI	0 to 5 psi	Absolute
PX3005-015AI	0 to 15 psi	Absolute
PX3005-030AI	0 to 30 psi	Absolute
PX3005-100AI	0 to 100 psi	Absolute
PX3005-250AI	0 to 250 psi	Absolute
PX3005-500AI	0 to 500 psi	Absolute
PX3005-001GI	-1 to 1 psi	Compound Gauge
PX3005-003GI	-3 to 3 psi	Compound Gauge
PX3005-005GI	-5 to 5 psi	Compound Gauge
PX3005-015GI	-15 to 15 psi	Compound Gauge
PX3005-030GI	-15 to 30 psi	Compound Gauge
PX3005-100GI	-15 to 100 psi	Compound Gauge
PX3005-150AI	-15 to 150 psi	Compound Gauge
PX3005-250GI	-15 to 250 psi	Compound Gauge
PX3005-500GI	-15 to 500 psi	Compound Gauge
PX3005-1.0KGI	-15 to 1,000 psi	Compound Gauge
PX3005-1.5KGI	-15 to 1,500 psi	Compound Gauge
PX3005-3.0KGI	-15 to 3,000 psi	Compound Gauge
PX3005-5.0KGI	-15 to 5,000 psi	Compound Gauge
PX3005-7.5KGI	-15 to 7,500 psi	Compound Gauge
PX3005-10KGI	-15 to 10,000 psi	Compound Gauge
PX3005-15KGI	-15 to 15,000 psi	Compound Gauge

Specifications

Turndown = nominal range of the device / set span of device

EXAMPLE: a PX3005-100GI with set span of 50psi, TD = 100psi/50psi = 2

Accuracy (NLHR, 20°C ±5°C):

±0.2TD% SPAN

Long Term Stability:

+/- 0.1% URL / year

Ambient Temperature Effects (-20°C to 70°C):

±(0.1+0.1TD) % SPAN

Power Supply Effects:

± 0.005TD% SPAN/V (Zero and Span)

Mounting Position Effects:

Apply to any position. Install error less than 400Pa can be corrected by PV=0 reset.

Vibration Effects:

GB/T 1827.3/IEC61298-3 tests, 20g (5-2000HZ, max<±3mm)
<0.1% URL

Supply Voltage:

10.5 to 55VDC

Output Signal:

4-20mA Two wire

Sensor Response Time:

200 mS

Damping Time:

Selectable, 0 to 100 S

Load Resistance Ω:

<(U-10.5)/0.021

Transmission Distance:

< 1000m

Power Consumption:

500mW(20.8mA output @ 24VDC)

Operating Temperature:

-20 to 70°C (-4 to 160°F)

Storage Temperature:

-40 to 85°C (-40 to 185°F)

Media Temperature:

-40 to 120°C (-40 to 250°F)

Environmental Rating:

IP67

Media:

Fluids and gasses compatible with 316 SS and FKM

Process Connection/Material:

1/4"-18NPT (M) / 316 SS

Electrical Connection:

4 pin male M12

Isolating Diaphragm:

4 pin male M12

Sensor Fill Fluid:

Silicone Oil

Sensor Seal:

O-ring, FKM

Housing Material:

316 SS

Weight:

0.52kg

Range Limit Table:

table

Absolute Pressure Ranges

Nominal Value		Minimum Span		Upper (URL)		Lower (URL)		Over Range Limit	
kPa	PSIA	kPa	PSIA	kPa	PSIA	kPa	PSIA	kPa	PSIA
35	5	10	1.5	35	5	0	0	50	7.5
100	15	35	5	100	15	0	0	150	22
200	30	100	15	200	30	0	0	300	45
700	100	350	50	700	100	0	0	1050	150
MPa	PSIA	MPa	PSIA	MPa	PSIA	MPa	PSIA	MPa	PSIA
1	150	0.5	75	1	150	0	0	1.5	220
1.7	250	1	150	1.7	250	0	0	2.55	370
3.5	500	1.7	250	3.5	500	0	0	5.25	750

Gage Pressure Ranges

Nominal Value		Minimum Span		Upper (URL)		Lower (URL)		Over Range Limit	
kPa	PSI	kPa	PSI	kPa	PSI	kPa	PSI	kPa	PSI
7	1	5	0.75	7	1	-7	-1	10.5	1.5
20	3	10	1.5	20	3	-20	-3	30	4.5
35	5	20	3	35	5	-35	-5	52.5	7.5
100	15	35	5	100	15	VAC	VAC	150	22
200	30	100	15	200	30	VAC	VAC	300	45
700	100	350	30	700	100	VAC	VAC	1050	150
MPa	PSI	MPa	PSI	MPa	PSI	MPa	PSI	MPa	PSI
1	150	0.5	75	1	150	VAC	VAC	1.5	220
1.7	250	1	150	1.7	250	VAC	VAC	2.55	370
3.5	500	1.7	250	3.5	500	VAC	VAC	5.25	750
7	1000	3.5	500	7	1000	VAC	VAC	10.5	1500
17	1500	7	1000	17	1500	VAC	VAC	25.5	3700
35	3000	17	2500	35	3000	VAC	VAC	52.5	7500
40	5000	20	3000	40	5000	VAC	VAC	60	8700
60	7500	30	4500	60	7500	VAC	VAC	90	13000
70	10000	35	5000	70	10000	VAC	VAC	105	15000
100	15000	50	7250	100	15000	VAC	VAC	150	21750