



**NT® PRESSURE TRANSDUCERS,
MODELS 4100, 4210**

Single-port and flow-through models



reliable pressure measurement

Reliable Pressure Measurement

Whether it's automation, process control or safety concerns that require pressure measurement, the instrumentation must be clean, accurate and reliable. To meet the needs of the semiconductor industry, Entegris combines the latest electronic sensing technology and high purity materials to create leading-edge products that allow for greater control of process variables.

- No moving parts to generate particles
- Nonmetallic sensing technology for reliable measurement
- No fill fluids to contaminate your process
- Available with a flow-through design to minimize dead volume
- Compact design to minimize footprint
- One percent (1%) of full scale accuracy for critical measurements

Constructed for Compatibility

NT[®] Pressure Transducers do not contain any moving parts or fill fluids that could potentially contaminate the process. The wetted parts of the nonmetallic transducer consist of PTFE and other high purity fluoropolymers. With the FEP-jacketed pigtail available as the standard electrical connection, the transducer is resistant to harsh chemical environments and external spraydowns.

Sensing Technology

Using a nonmetallic pressure sensing technology, these transducers provide an accurate and reliable measurement. All products are factory calibrated and 100 percent verified, with no field calibration or adjustments necessary to slow down your installation. Standard electronic outputs enable easy integration with PLCs, control systems and electronic displays.

Applications

Measuring line pressure allows the user to obtain valuable and critical diagnostic information, which is used for monitoring or controlling process conditions, such as:

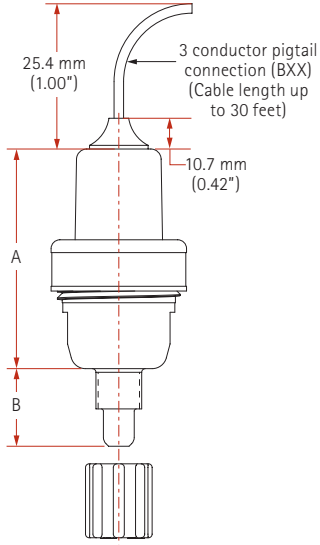
- Chemical and DI water dispense
- Filter life monitoring
- Back-pressure in recirculation loops
- Point-of-use dispense
- Tool prioritization

NT Pressure Transducer, Single-port, Model 4100

Dimensions

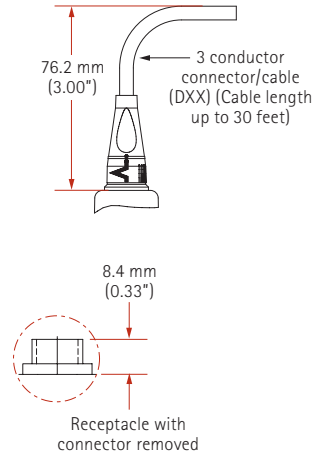
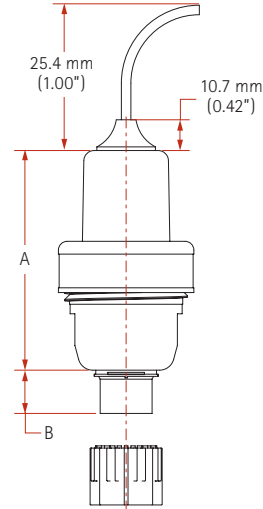
FLARETEK® CONNECTION

Side View





SUPER 300 TYPE PILLAR® CONNECTION

Side View



Inlet/Outlet Port Connection	Dimension	
	A	B
1/4" Flaretek tube fitting	76.2 mm (3.00")	25.2 mm (0.99")
3/8" Flaretek tube fitting	76.2 mm (3.00")	26.9 mm (1.06")
1/2" Flaretek tube fitting	76.2 mm (3.00")	29.0 mm (1.14")
1/4" FNPT	82.3 mm (3.24")	—
1/2" FNPT	88.9 mm (3.50")	—
1/4" MNPT	76.2 mm (3.00")	15.0 mm (0.59")
1/4" S300 Pillar tube fitting	76.2 mm (3.00")	11.0 mm (0.43")
3/8" S300 Pillar tube fitting	76.2 mm (3.00")	15.0 mm (0.59")
1/2" S300 Pillar tube fitting	76.2 mm (3.00")	17.5 mm (0.69")

Specifications

Materials:	Wetted parts	Body: PTFE Sensor interface: PFA or CTFE Primary seal: Kalrez®
	Nonwetted parts	Polypropylene, polyethylene, PVDF and PVC or FEP-jacketed cable (in addition to materials listed above)
Pressure range:	0–207 kPa (0–30 psig); 0–414 kPa (0–60 psig) 0–690 kPa (0–100 psig); 0–1034 kPa (0–150 psig)	
Over-pressure limit:	150% of full scale range or maximum pressure rating of fitting	
Process temperature:	10°C–65°C (50°F–149°F); 65°C–95°C (149°F–203°F) @ 517 kPa (75 psig) maximum	
Process connection options:	Flaretek tube fitting	1/4", 3/8", 1/2"
	FNPT	1/4", 1/2"
	MNPT	1/4"
	S300 Pillar tube fitting	1/4", 3/8", 1/2"
Electrical input:	24 VDC (12–30 VDC input voltage)	
Electrical output:	4–20 mA, 0–5 VDC, 0–10 VDC	
Reference accuracy:	±1% of full scale (includes combined effects of linearity, hysteresis and repeatability)	
Electrical enclosure:	IP54	
Approvals:	 	Conforms to ANSI®/ISA® Standard 12.12.01, UL Standard 61010-1 Class I, Division 2, Groups A, B, C, D, T6

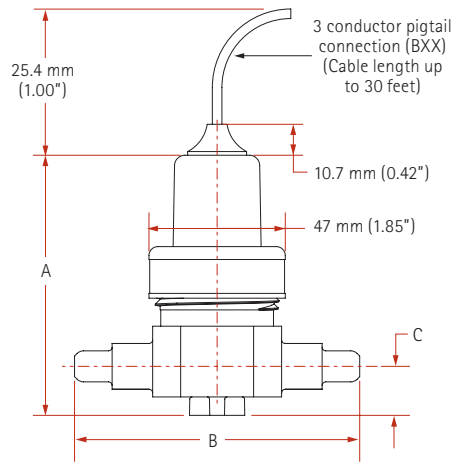
Note: Specifications are subject to change without notice. Please consult the factory for the most current information.

NT Pressure Transducer, Flow-through, Model 4210

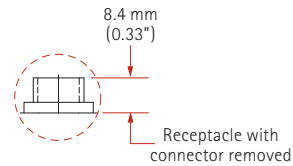
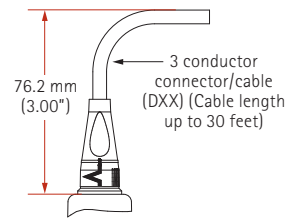
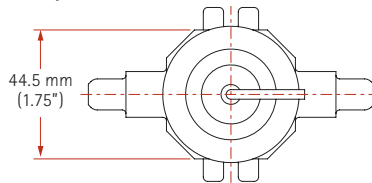
Dimensions

FLARETEK CONNECTION

Side View

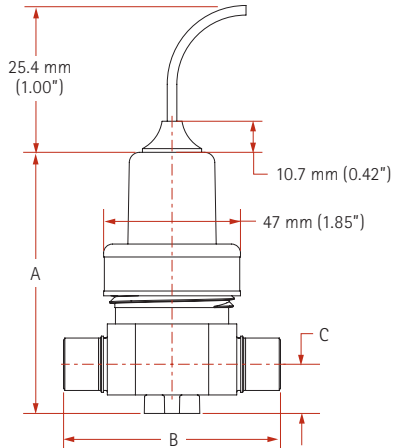


Top View

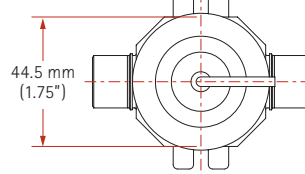


SUPER 300 TYPE PILLAR CONNECTION

Side View





Top View



Inlet/Outlet Port Connection	Dimension		
	A	B	C
1/4" Flaretek tube fitting	89.7 mm (3.53")	94.5 mm (3.72")	18.5 mm (0.73")
3/8" Flaretek tube fitting	89.7 mm (3.53")	98.3 mm (3.87")	17.0 mm (0.67")
1/2" Flaretek tube fitting	96.0 mm (3.78")	102.4 mm (4.03")	21.6 mm (0.85")
3/4" Flaretek tube fitting	104.4 mm (4.11")	108.5 mm (4.27")	25.4 mm (1.00")
1" Flaretek tube fitting	112.5 mm (4.43")	120.7 mm (4.75")	30.5 mm (1.20")
1/4" S300 Pillar tube fitting	89.7 mm (3.53")	66.5 mm (2.62")	18.5 mm (0.73")
3/8" S300 Pillar tube fitting	89.7 mm (3.53")	74.5 mm (2.93")	17.0 mm (0.67")
1/2" S300 Pillar tube fitting	96.0 mm (3.78")	79.5 mm (3.13")	21.6 mm (0.86")
3/4" S300 Pillar tube fitting	104.4 mm (4.11")	88.4 mm (3.48")	25.4 mm (1.00")
1" S300 Pillar tube fitting	112.5 mm (4.43")	98.6 mm (3.88")	29.7 mm (1.17")

Specifications

Materials:	Wetted parts	Body: PTFE
		Sensor interface: PFA or CTFE
		Primary seal: Kalrez
	Nonwetted parts	Polypropylene, polyethylene, PVDF and PVC or FEP-jacketed cable (in addition to materials listed above)
Pressure range:	0–207 kPa (0–30 psig); 0–414 kPa (0–60 psig)	
	0–690 kPa (0–100 psig)	
Over-pressure limit:	150% of full scale range or maximum pressure rating of fitting	
Process temperature:	10°C–65°C (50°F–149°F); 65°C –95°C (149°F–203°F)	
Process connection options:	Flaretek tube fitting	1/4", 3/8", 1/2", 3/4", 1"
	S300 Pillar tube fitting	1/4", 3/8", 1/2", 3/4", 1"
Electrical input:	24 VDC (12–30 VDC input voltage)	
Electrical output:	4–20 mA*, 0–5 VDC, 0–10 VDC	
Reference accuracy:	±1% of full scale (includes combined effects of linearity, hysteresis and repeatability)	
Electrical enclosure:	IP54	
Approvals:	 	Conforms to ANSI/ISA Standard 12.12.01, UL Standard 61010-1 Class I, Division 2, Groups A, B, C, D, T6

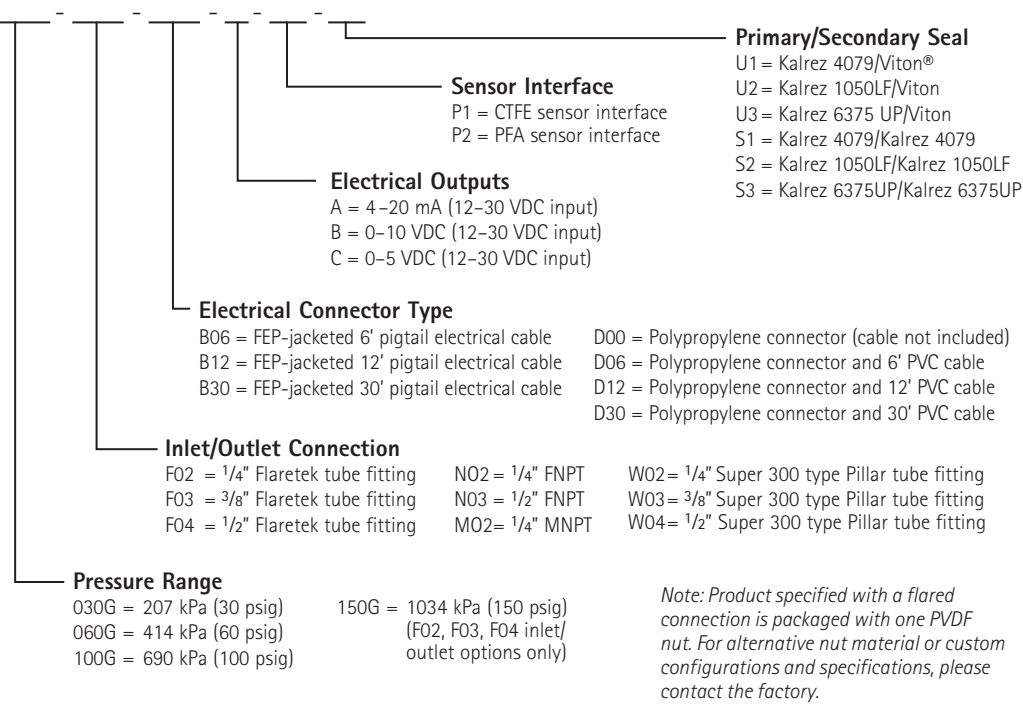
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Ordering Information

NT Pressure Transducers

Part Number

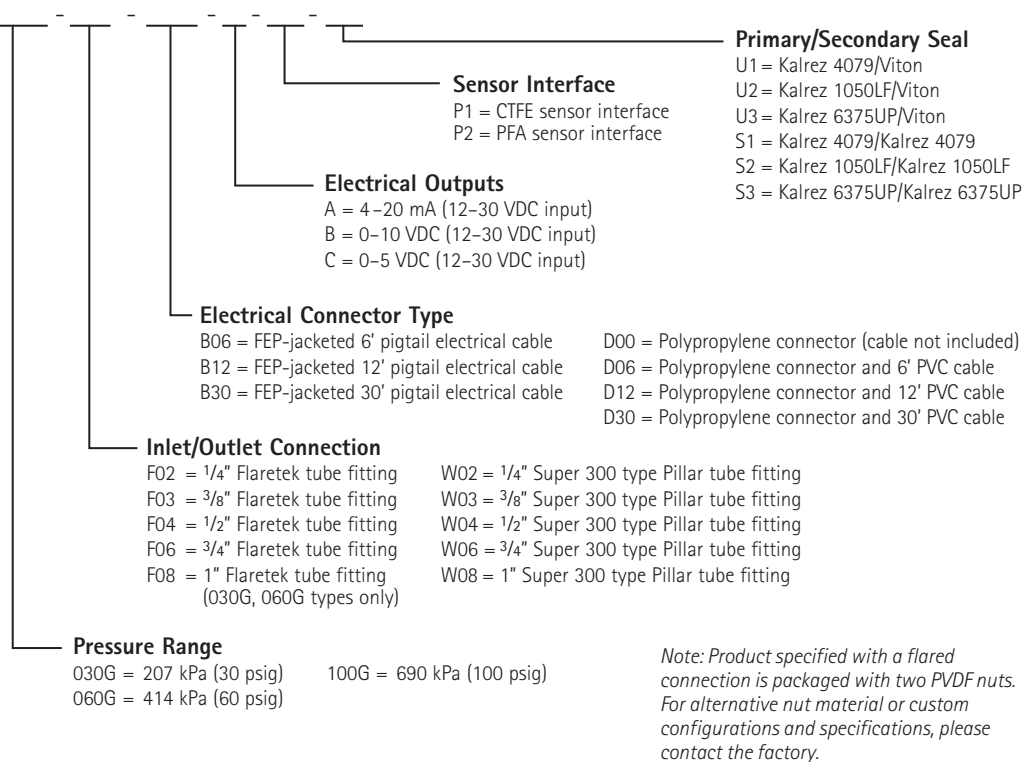
4100-



NT Pressure Transducers

Part Number

4210-





Wet Chemical Process Control

Entegris' patented products measure and control the pressure, flow and level of high purity corrosive acids, bases and solvents used in semiconductor processing. The proven reliability, performance and ease of integration provided by Entegris' products offer you new levels of wet chemical process control.

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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U.S. Patent 5,869,766, 5,693,887 5,852,244, other patents pending.

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