

NT™ Pressure Transducers, Models 4100, 4210

Single-port and flow-through models

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 ($\pm 1\%$) 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
- Point-of-use dispense
- Filter life monitoring
- Tool prioritization
- Back-pressure in recirculation loops

NT Pressure Transducer, Single-port, Model 4100

SPECIFICATIONS

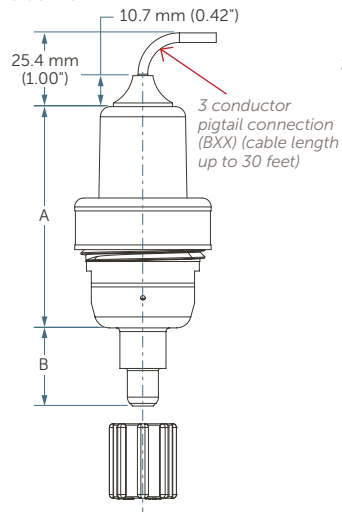
Materials	Wetted parts	Body	PTFE	
		Sensor interface	PFA or CTFE	
		Primary seal	Perfrez®	
	Nonwetted parts	Polypropylene, polyethylene, Viton®, PVDF (in addition to materials listed above)		
Pressure range	0 – 207 kPa (0 – 30 psig)			
	0 – 414 kPa (0 – 60 psig)			
	0 – 690 kPa (0 – 100 psig)			
	0 – 1034 kPa (0 – 150 psig)			
Over-pressure limit	150% of full scale range or maximum pressure rating of fitting			
Process temperature	10° – 65°C (50° – 149°F)			
	65° – 95°C (149° – 203°F) @ 517 kPa (75 psig) maximum			
Process connection options	Flaretek® tube fitting	1/4", 3/8", 1/2"		
	PrimeLock® tube fitting	3/8", 1/2"		
	FNPT	1/4", 1/2"		
	MNPT	1/4"		
	Super 300 type 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		IECEX ETL 19.0009X Ex ic IIC T5 Gc		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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Note: Specifications are subject to change without notice. Please consult the factory for the most current information.

DIMENSIONS

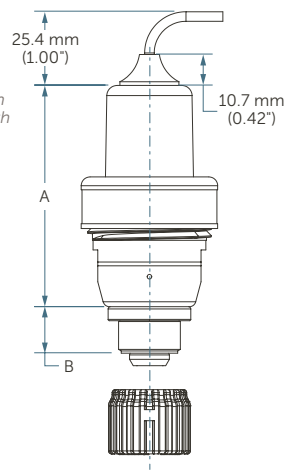
Flaretek Connection

Side View



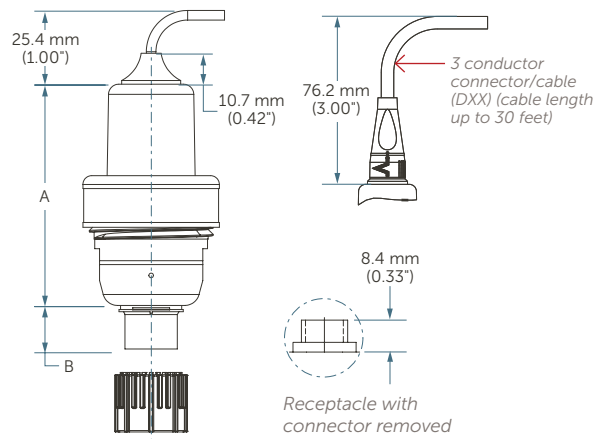
PrimeLock Connection

Side View

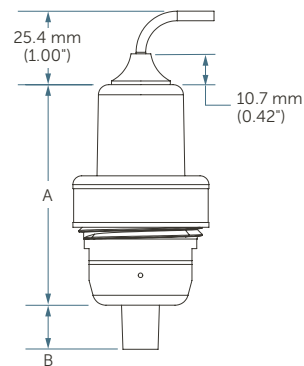


Super 300 Type Pillar Connection

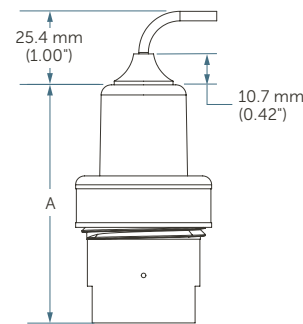
Side View



Male Pipe Thread Connection



Female Pipe Thread Connection



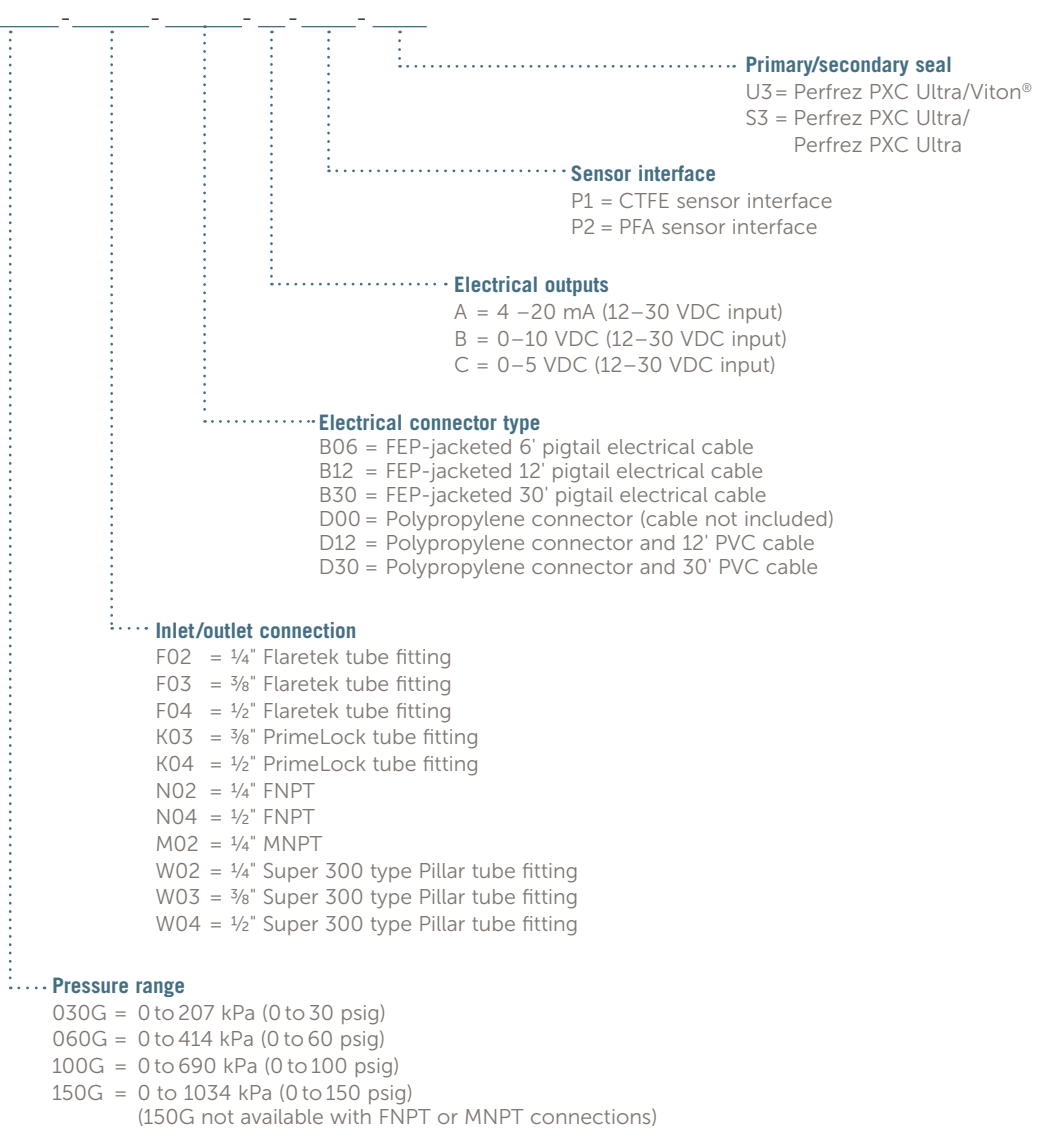
DIMENSION

Inlet/Outlet port connections	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")
3/8" PrimeLock tube fitting	76.2 mm (3.00")	20.3 mm (0.80")
1/2" PrimeLock tube fitting	76.2 mm (3.00")	22.6 mm (0.89")
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" Super 300 type Pillar tube fitting	76.2 mm (3.00")	11.0 mm (0.43")
3/8" Super 300 type Pillar tube fitting	76.2 mm (3.00")	15.0 mm (0.59")
1/2" Super 300 type Pillar tube fitting	76.2 mm (3.00")	17.5 mm (0.69")

ORDERING INFORMATION

NT Pressure Transducers: part number

4100-



Note: Product specified with a flared connection is packaged with one PVDF nut. For alternative nut material or custom configurations and specifications, please contact the factory.

NT Pressure Transducer, Flow-through, Model 4210

SPECIFICATIONS

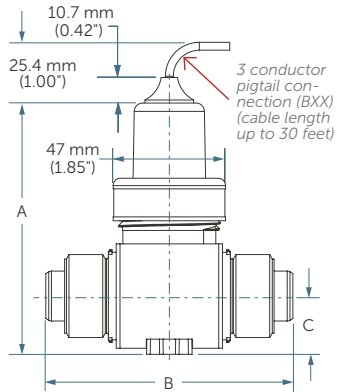
Materials	Wetted parts	Body	PTFE	
		Sensor interface	PFA or CTFE	
		Primary seal	Perfrez	
	Nonwetted parts	Polypropylene, polyethylene, Viton, PVDF (in addition to materials listed above)		
Pressure range	0 – 207 kPa (0 – 30 psig)			
	0 – 414 kPa (0 – 60 psig)			
	0 – 690 kPa (0 – 100 psig)			
Over-pressure limit	150% of full scale range or maximum pressure rating of fitting			
Process temperature	10° – 65°C (50° – 149°F)			
	65° – 95°C (149° – 203°F)			
Process connection options	Flaretek tube fitting	1/4", 3/8", 1/2", 3/4", 1"		
	PrimeLock tube fitting	1/2", 3/4", 1"		
	Super 300 type 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		IECEX ETL 19.0009X Ex ic IIC T5 Gc	 Intertek 4009778	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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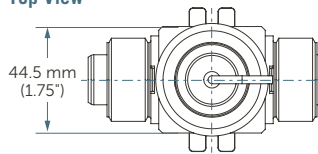
DIMENSIONS

Flaretek Connection

Side View

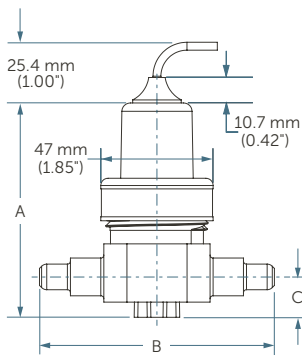


Top View

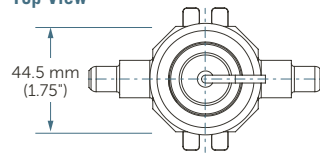


PrimeLock Connection

Side View

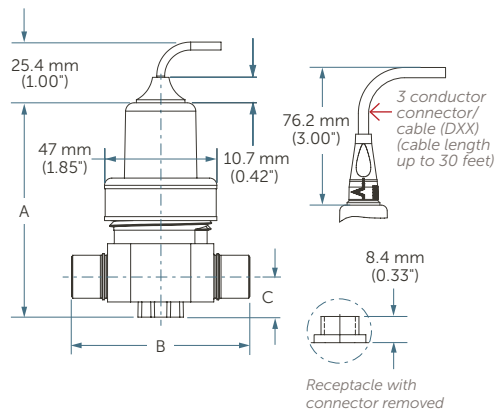


Top View

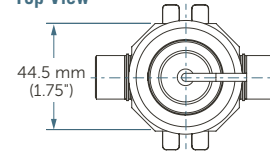


Super 300 Type Pillar Connection

Side View



Top View



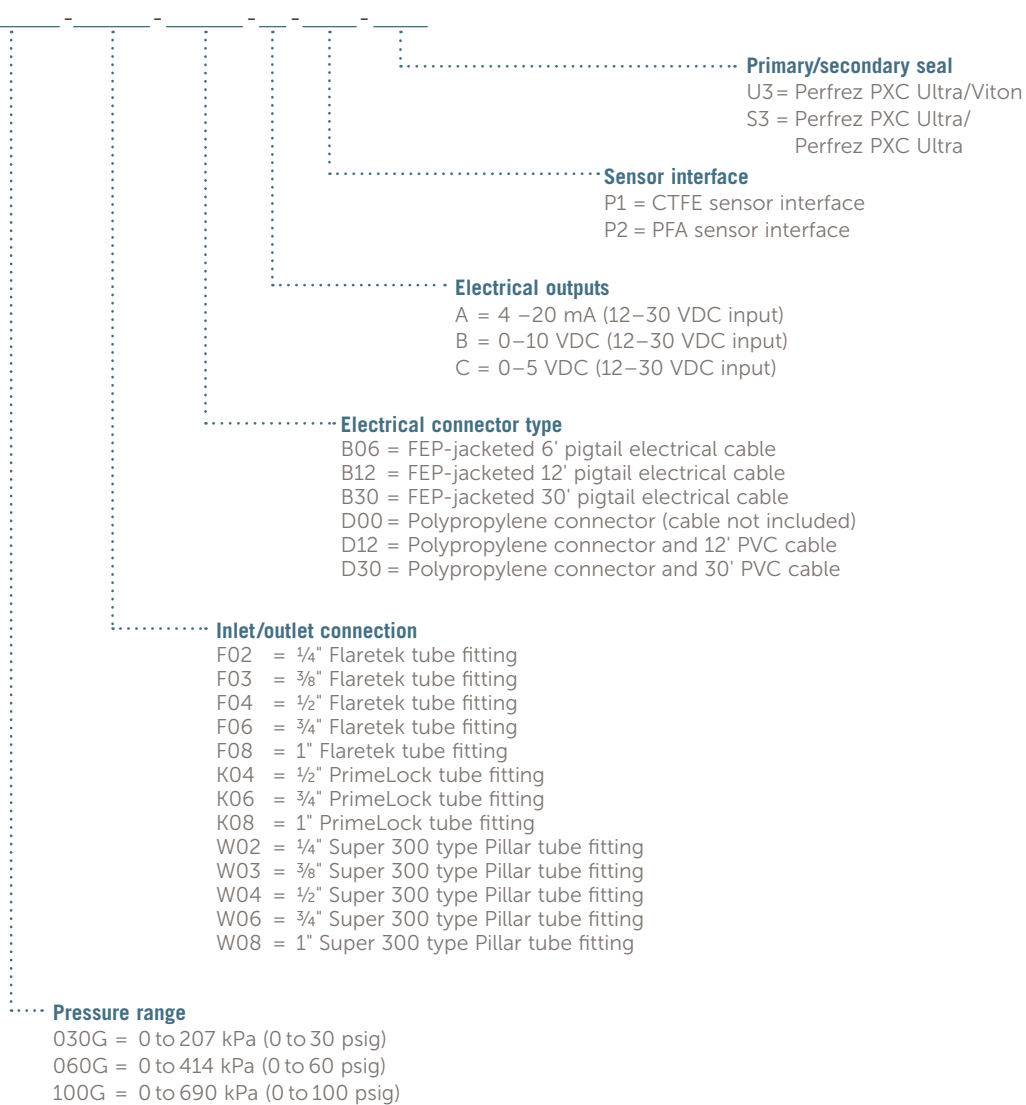
DIMENSION

Inlet/Outlet port connections	A	B	C
1/4" Flaretek tube fitting	89.7 mm (3.53")	94.7 mm (3.73")	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")
1/2" PrimeLock tube fitting	92.2 mm (3.63")	89.7 mm (3.53")	17.5 mm (0.69")
3/4" PrimeLock tube fitting	105.2 mm (4.14")	103.4 mm (4.07")	24.4 mm (0.96")
1" PrimeLock tube fitting	113.5 mm (4.47")	112.5 mm (4.43")	28.4 mm (1.12")
1/4" Super 300 type Pillar tube fitting	89.7 mm (3.53")	66.5 mm (2.62")	18.5 mm (0.73")
3/8" Super 300 type Pillar tube fitting	89.7 mm (3.53")	74.5 mm (2.93")	17.0 mm (0.67")
1/2" Super 300 type Pillar tube fitting	96.0 mm (3.78")	79.5 mm (3.13")	21.6 mm (0.85")
3/4" Super 300 type Pillar tube fitting	104.4 mm (4.11")	88.4 mm (3.48")	25.4 mm (1.00")
1" Super 300 type Pillar tube fitting	111.8 mm (4.40")	98.6 mm (3.88")	29.7 mm (1.17")

ORDERING INFORMATION

NT Pressure Transducers: part number

4210-



Note: Product specified with a flared connection is packaged with two PVDF nuts. For alternative nut material or custom configurations and specifications, please contact the factory.

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 entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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