

# 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

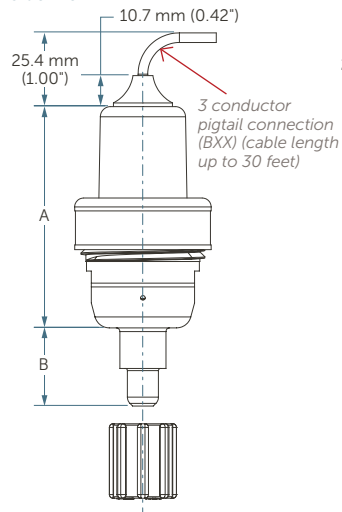
<b>Materials</b>	Wetted parts	Body	PTFE	
		Sensor interface	PFA or CTFE	
		Primary seal	Perfrez®	
	Nonwetted parts	Polypropylene, polyethylene, Viton®, PVDF (in addition to materials listed above)		
<b>Pressure range</b>	0 – 207 kPa (0 – 30 psig)			
	0 – 414 kPa (0 – 60 psig)			
	0 – 690 kPa (0 – 100 psig)			
	0 – 1034 kPa (0 – 150 psig)			
<b>Over-pressure limit</b>	150% of full scale range or maximum pressure rating of fitting			
<b>Process temperature</b>	10° – 65°C (50° – 149°F)			
	65° – 95°C (149° – 203°F) @ 517 kPa (75 psig) maximum			
<b>Process connection options</b>	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"		
<b>Electrical input</b>	24 VDC (12 – 30 VDC input voltage)			
<b>Electrical output</b>	4 – 20 mA, 0 – 5 VDC, 0 – 10 VDC			
<b>Reference accuracy</b>	±1% of full scale (includes combined effects of linearity, hysteresis, and repeatability)			
<b>Electrical enclosure</b>	IP54			
<b>Approvals</b>		<b>IECEx ETL 19.0009X</b> Ex ic IIC T5 Gc		Conforms to ANSI®/ISA® Standard 121201, UL Standard 61010-1 Class I, Division 2, Groups A, B, C, D, T6
		<b>II 3 G Ex ic IIC T5 Gc</b> ITS20ATEX205536X		

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

## DIMENSIONS

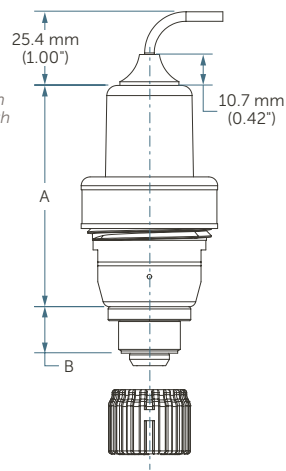
### Flaretek Connection

#### Side View



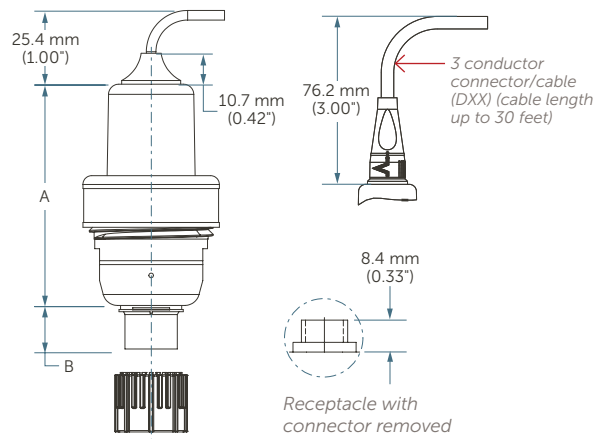
### PrimeLock Connection

#### Side View

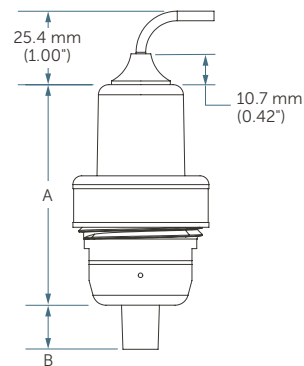


### Super 300 Type Pillar Connection

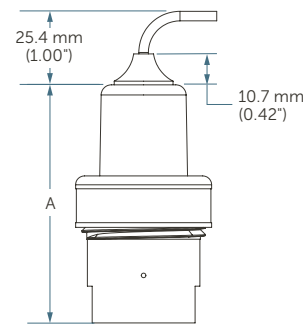
#### Side View



### Male Pipe Thread Connection



### Female Pipe Thread Connection



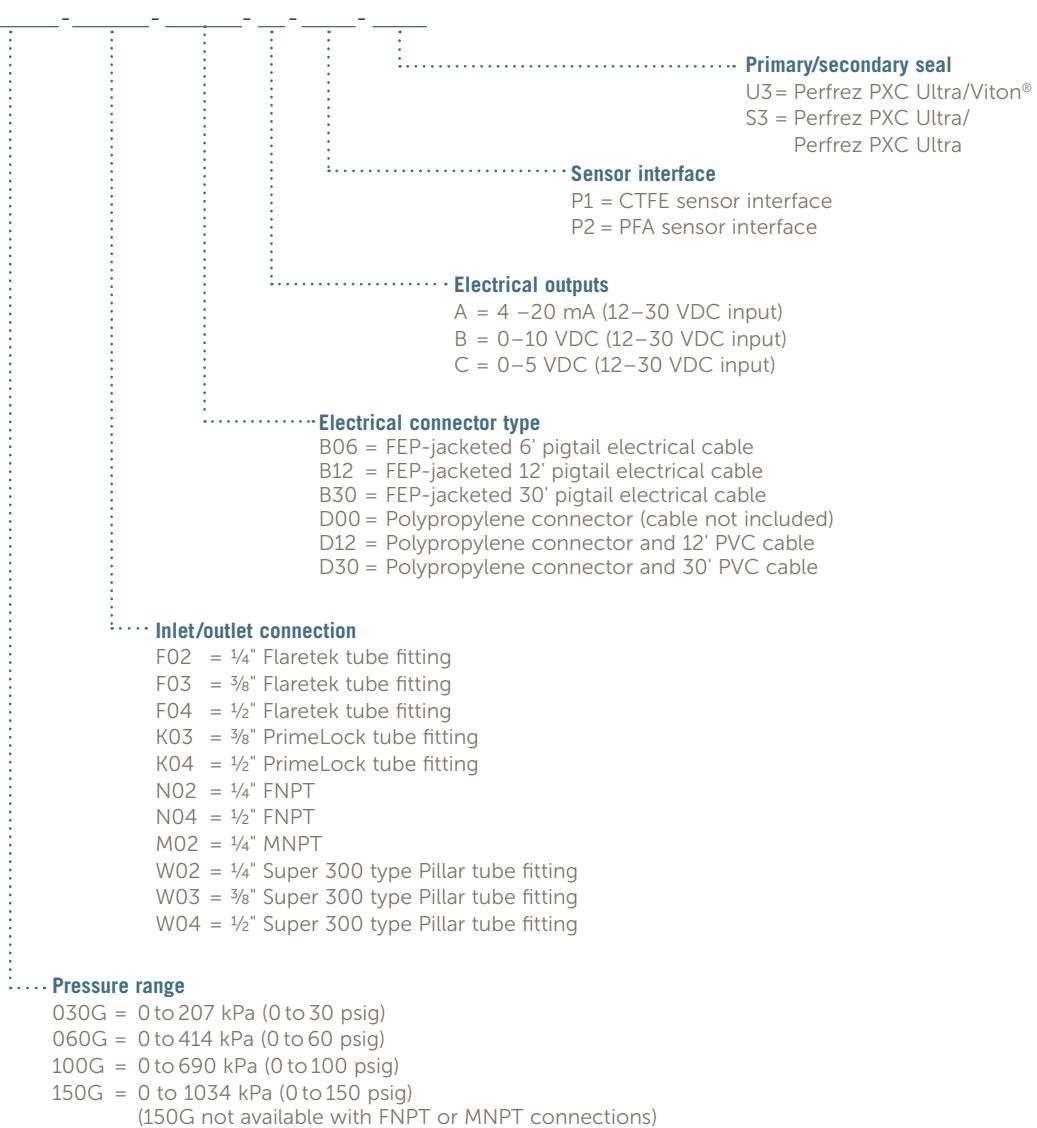
#### DIMENSION

Inlet/Outlet port connections	A	B
¼" Flaretek tube fitting	76.2 mm (3.00")	25.2 mm (0.99")
⅜" Flaretek tube fitting	76.2 mm (3.00")	26.9 mm (1.06")
½" Flaretek tube fitting	76.2 mm (3.00")	29.0 mm (1.14")
⅜" PrimeLock tube fitting	76.2 mm (3.00")	20.3 mm (0.80")
½" PrimeLock tube fitting	76.2 mm (3.00")	22.6 mm (0.89")
¼" FNPT	82.3 mm (3.24")	—
½" FNPT	88.9 mm (3.50")	—
¼" MNPT	76.2 mm (3.00")	15.0 mm (0.59")
¼" Super 300 type Pillar tube fitting	76.2 mm (3.00")	11.0 mm (0.43")
⅜" Super 300 type Pillar tube fitting	76.2 mm (3.00")	15.0 mm (0.59")
½" 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

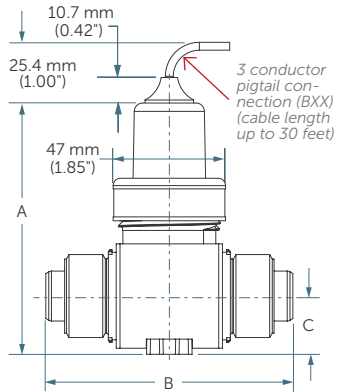
<b>Materials</b>	Wetted parts	Body	PTFE
		Sensor interface	PFA or CTFE
		Primary seal	Perfrez
	Nonwetted parts	Polypropylene, polyethylene, Viton, PVDF (in addition to materials listed above)	
<b>Pressure range</b>	0 – 207 kPa (0 – 30 psig)		
	0 – 414 kPa (0 – 60 psig)		
	0 – 690 kPa (0 – 100 psig)		
<b>Over-pressure limit</b>	150% of full scale range or maximum pressure rating of fitting		
<b>Process temperature</b>	10° – 65°C (50° – 149°F)		
	65° – 95°C (149° – 203°F)		
<b>Process connection options</b>	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"	
<b>Electrical input</b>	24 VDC (12 – 30 VDC input voltage)		
<b>Electrical output</b>	4 – 20 mA, 0 – 5 VDC, 0 – 10 VDC		
<b>Reference accuracy</b>	±1% of full scale (includes combined effects of linearity, hysteresis, and repeatability)		
<b>Electrical enclosure</b>	IP54		
<b>Approvals</b>		IECEx ETL 19.0009X Ex ic IIC T5 Gc	
			Conforms to ANSI®/ISA® Standard 121201, 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.

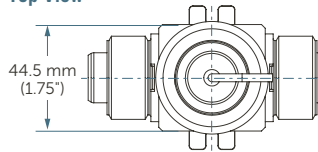
## DIMENSIONS

### Flaretek Connection

#### Side View

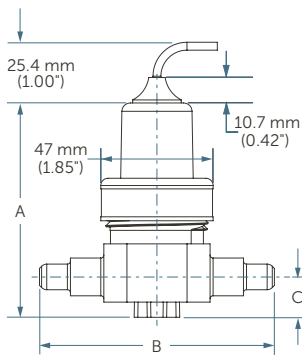


#### Top View

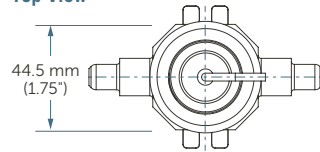


### PrimeLock Connection

#### Side View

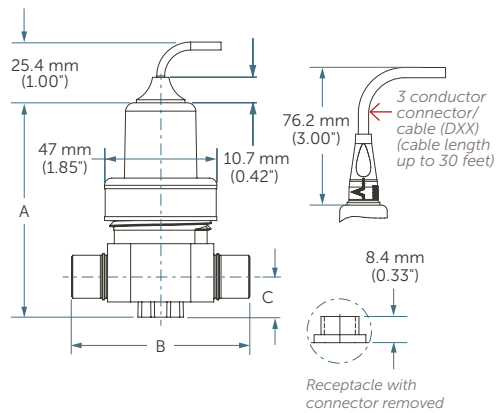


#### Top View

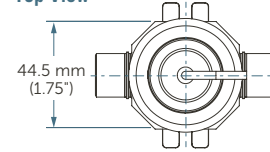


### Super 300 Type Pillar Connection

#### Side View



#### Top View



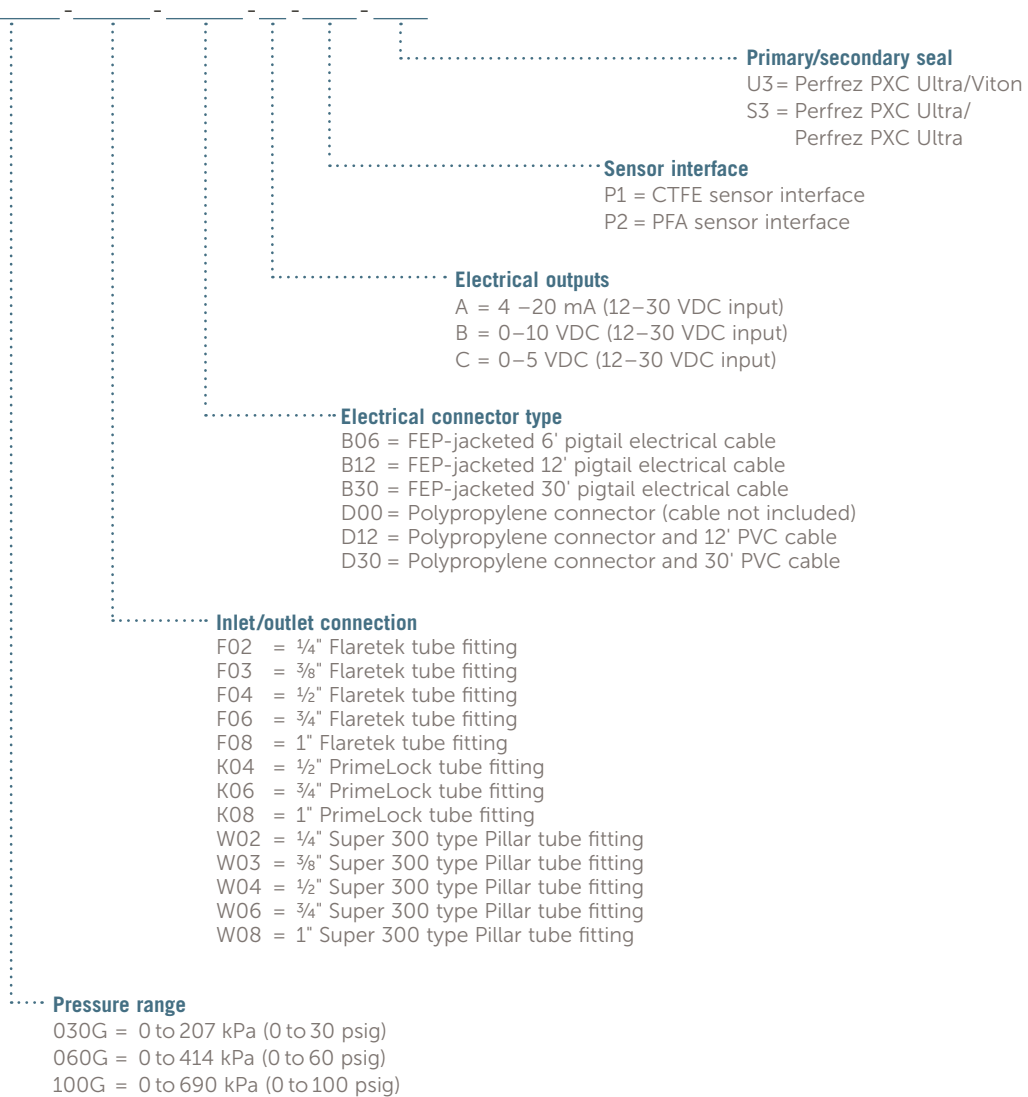
## DIMENSION

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

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