

Shreyas Instruments Pvt. Ltd.,

STD 5000 and STD 6000 Series Current To Pressure Transducers

PLACKA[®]

Brandt

Brandt



Shreyas

STD 5000 & STD 6000 SERIES I/P Transducers

Shreyas Instruments' STD 5000 and STD 6000 series of Current to Pressure (I/P) Transducers represent the highest standard in I/P Technology. The rugged IP-65 housing, compact size and the revolutionary "Plug-In-E-PI Module" coupled with brandt's field proven technology, make them the most accurate, reliable and simplest I/P's to install, operate and maintain in the industry. Both 5000 & 6000 series are similar in specification excepting that STD 6000 series are fitted with necessary flame arrestors and are certified ones for hazardous area.

- ✓ Accuracy of $\pm 0.15\%$ of Span.
- ✓ Field Proven "E-Pi" Technology is unaffected by Vibration, Shock or Mounting Position
- ✓ Air consumption of 0.06 SCFM . (Typical)
- ✓ Output capacity of 4.0 SCFM.
- ✓ CIMFR Certification for intrinsically Safe and Explosion Proof Installations.
- ✓ Operating Temperature Range (-)20° to 66° C
- ✓ Rugged IP-65 Enclosure
- ✓ Field selectable Direct, Reverse and Split Range.
- ✓ STD 5000 is for non hazardous applications
- ✓ STD 6000 is Certified By CIMFR for hazardous areas

Electrical Connections for 12-22 AWG Wire

Plug-in E-Pi Module



Field Selectable Direct, Reverse and Split Range

Model Number

STD5: STD5000, General Purpose, IP - 65
 STD6: STD6000, EX-Proof, intrinsically Safe, IP 65

1 : 4-20 mA
 2 : Special input, Consult Factory for Availability

1: 630 PSIG Split Range Not Available 3: 3-15 PSIG or 0.2 to 1Kg/cm²
 2: 3-27 PSIG. Split Range Not Available 4: Special Output (Consult Factory)

1: Standard
 2: S.S. body
 3: Special applications

STD6

1

3

1

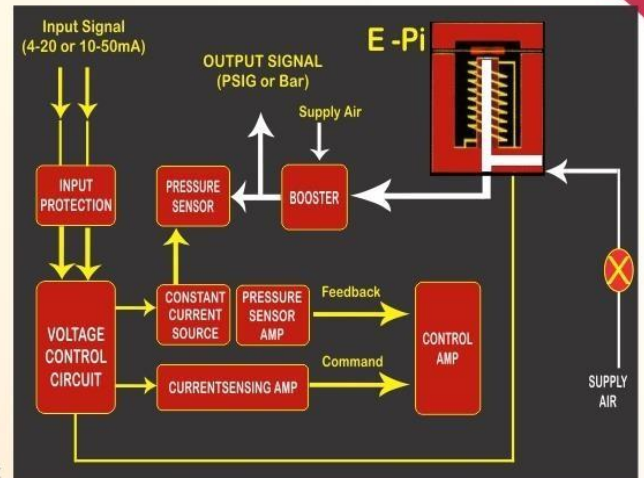
Typical Model Number

Brand'ts "E-Pi" Transducer Technology

The STD5000 and STD6000 Series of I/P Transducers utilize Brandt's Patented field proven, "E-Pi" transducer technology. This revolutionary breakthrough provides the industry with its first "solid State" I/P Transducer.

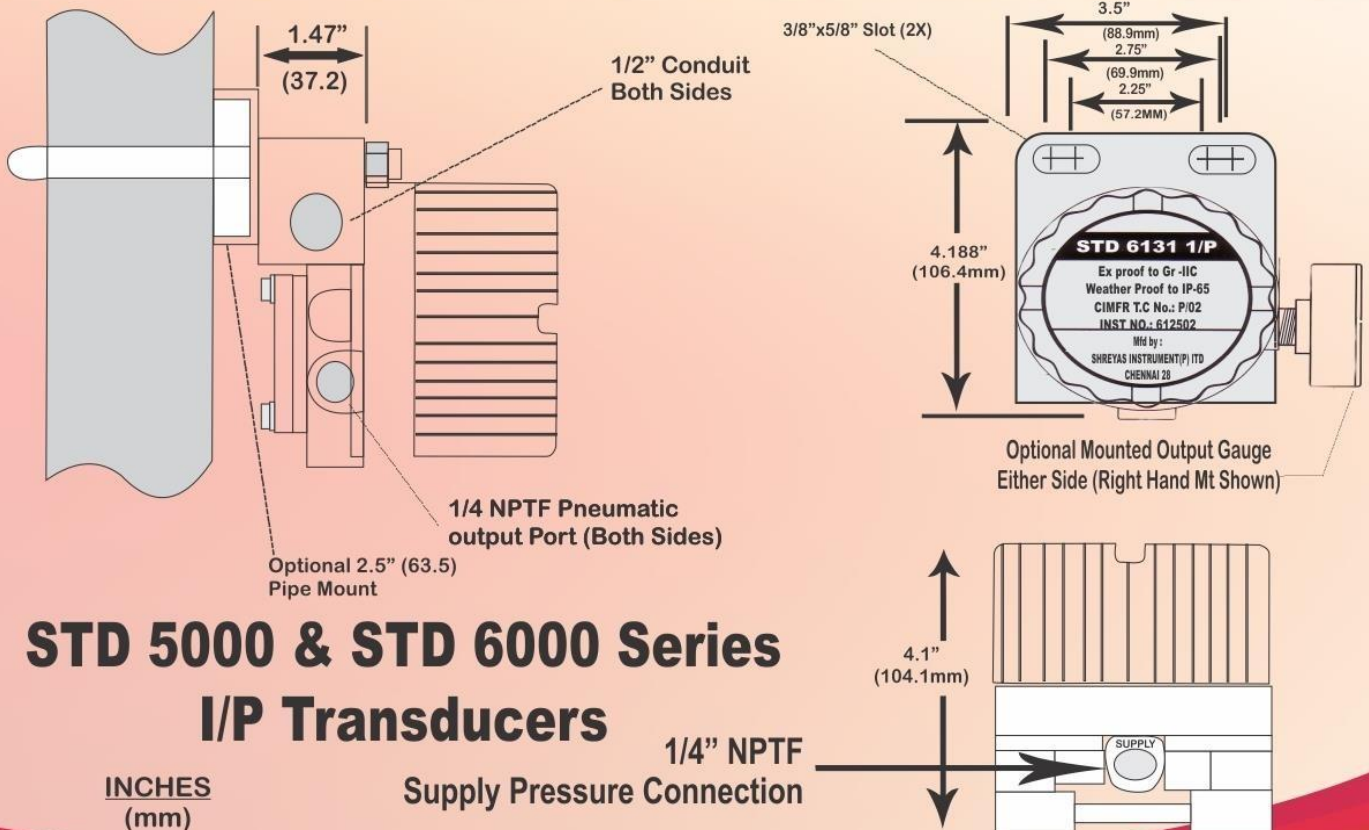
Brandt's "State of the Art" E-Pi Technology uses Minimal electrical energy and air Consumption to convert an electronic input signal (4-20mA or 10-50mA) to a proportional pneumatic output signal (3-15PSIG, 0.2-1kg, etc).

The E-Pi Transducer utilizes "a Virtually Weightless membrane" that is electromagnetically positioned over a nozzle to precisely modulate the pneumatic (back pressure) output. The low mass membrane is held in a continuously balanced Position, providing an output that is unaffected by shock, vibration or mounting position. The output of the E-Pi is then fed into an integral volume booster to deliver a pneumatic output signal with an output capacity of 4.0 SCFM.



The overall Performance, accuracy and repeatability are further enhanced by employing an internal feedback network whose speed and resolution allow the I/P to quickly respond to input changes. The balance supply and exhaust dynamics enhance control stability, while delivering accuracies of $\pm 0.15\%$ Span.

Dimensions



STD 5000 & STD 6000 SERIES I/p Transducers

PERFORMANCE SPECIFICATIONS

ACCURACY :	±0.15% Of Span (3-15 & 1-17 PSI Output) ±0.25% Of Span (3-27& 6-30 PSI Output)
REPEATABILITY :	±0.05% of Span
Deadband :	0.02% of Span
Stability / Reproducibility:	0.5% of Span /6 Months
Output Capacity :	4.0 SCFM (Supply and Exhaust characteristics are balanced to within +/-10%)
Air Consumption :	0.06 SCFM , typical

FUNCTIONAL SPECIFICATIONS

Position Effect :	Not Measurable
Vibration Effect :	<0.25% from 1-200 Hz / 1g
Frequency Response :	-3db at 1.8 HZ (per ISA- S26.4.3.1 Configuration A)
Loop Load :	4.2V dc Max
Operation Current :	3.7mA min, 200mA max, continuous at 120° F half cycle 70 amp at 1 /120 second 68° F
Supply Pressure :	1.4 Kg/cm ² std ±20% variation will not affect accuracy
Air Supply :	Clean dry and oil free instrument air
Operation Temperature :	(-20° C to 66° C)
Temperature Effect :	±0.04% of Span Per° C from 0 to 66° C ±0.80% of span per° C from 0 to (-) 22° C
EMI /RFI :	Less than ±1% effect on zero / Span (26-1000mHZ@30V/m) when installed per Installation Guidelines.
Operational Mode :	Field Selectable Direct Reverse and /or Split Range .
Failure Mode :	Mechanically Direct i.e.if input current drops below 3.7mA dc the output will drop to 1 to 2 psig regardless of direct or reverse mode selection .

PHYSICAL SPECIFICATIONS

Enclosure :	Internally purged IP-65 enclosure
Connections :	Pneumatic Supply Port - 1/4" NPT (F) Pneumatic Output Port - 1/4"NPT (F) Electrical connection -1/2" NPT (F)
Weight :	1Kg

Manufactured By:

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In Technical Collaboration

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