

- **NEMA 4X Harsh Environments are the Norm:** Units are waterproof and corrosion resistant with standard NEMA 4X in durable epoxy coated aluminum housings.
- **Immune to Shock and Vibration:** A low-mass flapper magnet controller by a powerful, stationary electromagnetic coil makes this converter impervious to shock, vibration, RFI and EMF interference.
- **Small Size and Weight:** Minimization in the converter system means that the instrument is small and lightweight - the standard metal field mount I/P is only 5 inches high and less than 3 inches in diameter. They weight less than 1.5 pounds.
- **Special Design for Pneumatic Positioners Reduces Installation Costs:** I/P units without booster can accept air supply of 30-150 psi eliminating the secondary regulator in valve assemblies. Units available for direct press fit mounting.



***I/P Signal Converters
Field Mount NEMA 4X***

The field mount I/P Converters have long been proven in rough, hazardous applications in virtually every process industry. Now they are available at a new low price where harsh environments require NEMA 4X ratings!

The field mount I/P Converters are compact, rugged instruments designed for use in industry. The unique patented signal conversion system results in a unit that is inherently insensitive to shock, vibration and mounting position. As standard stand alone units or for close coupling to pneumatic positioners, these units are the obvious choice for remote locations and harsh environments.

General Specifications (Standard Metal Housed Units)

Input: 4-20 mA

Output: 3-15 psi

Air Capacity: 2.4 SCFM

Air Supply: 20 psi nominal (40 psi maximum)

***Accuracy:** $\leq 0.5\%$

Hysteresis: $\leq 0.3\%$

***Accuracy:** Less than 0.5% of span, including the combined effects of linearity, hysteresis, and repeatability - defined as independent linearity per SAMA Standard PMC 20.1.1973 (Overall per ISA 51.1: ± 0.75 ; typically $\pm 0.15\%$)

Repeatability: (ISA 51.1) $\pm 0.25\%$; typically $\pm 0.15\%$

Input Resistance: R_i approximately 260 Ω

Input Capacitance: Negligible

Output Characteristic: Linear to input current, direct or reverse, according to order.

Resolution Response Time:

0.3 sec with 0.0035 cf of volume
1.5 sec with 0.035 cf of volume

Temperature Limits: -40°F to +180°F (-40°C to +80°C); -67°F (-55°C) optional.

Bottom temperature limit for units approved by CENELEC as Flameproof

Enclosure: -4°F (-20°C) Standard; -67°F (-55°C) optional

Specifications

(I/P Units Without Booster - For Close Coupling to Pneumatic Positioners)

Input:

Signal Range: 4-20 mA

Resistance: R_i approximately 265 Ω

Capacitance: Negligible

Output:

Signal Range: 3-15 psi

Characteristic: Linear, direct

Air Supply: 30-150 psi (1.4-10 bar)

Air Capacity:

.024 scfm (0.05 kg/h) at 1.4 bar (20 psi) air supply

.033 scfm (0.07 kg/h) at 2 bar (29 psi) air supply

.048 scfm (0.10 kg/h) at 4 bar (58 psi) air supply

.076 scfm (0.16 kg/h) at 6 bar (87 psi) air supply

.119 scfm (0.25 kg/h) at 10 bar (145 psi) air supply

Standard Adjustment: 80 psi (5.5 bar)

Transmission Characteristics:

Accuracy*: $\leq 1\%$

Hysteresis: $\leq 0.4\%$

Response threshold: $\leq 0.1\%$

Temperature influence: $\leq 0.1\% / K$

(0.2% / K from -4°F to -67°F)

(0.2% / K from -20°C to -55°C)

Air Supply Influence:

$\leq 0.8\% / 15$ psi (1 bar) from 20-45 psi (1.4-3 bar)

$\leq 0.5\% / 15$ psi (1 bar) from 45-145 psi (3-10 bar)

Temperature Limits:

-40°F to +180°F (-40°C to +80°C) Standard

(-55°C optional) Bottom temperature limit for units

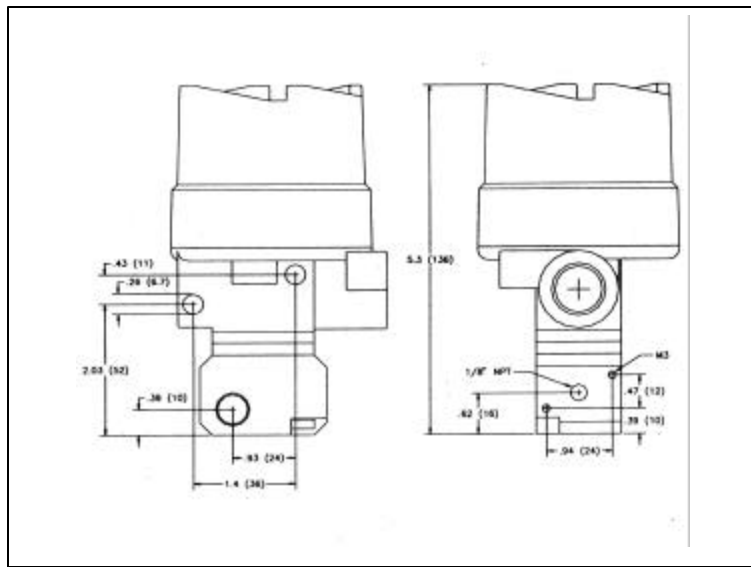
approved by CENELEC as Flameproof Enclosure:

-4°F (-20°C); (-55°C optional)

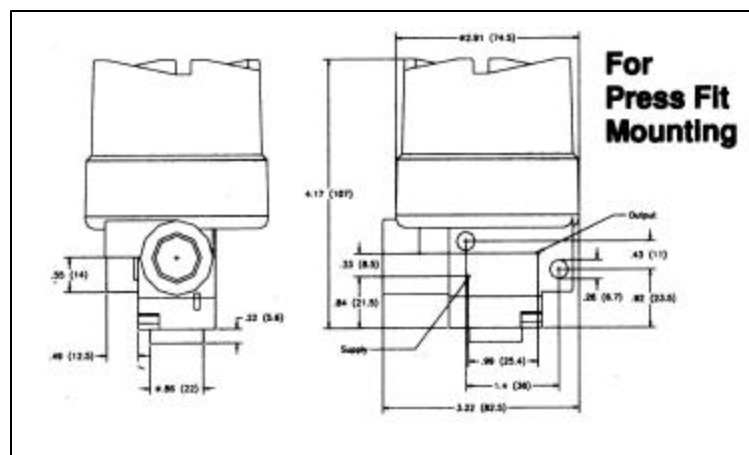
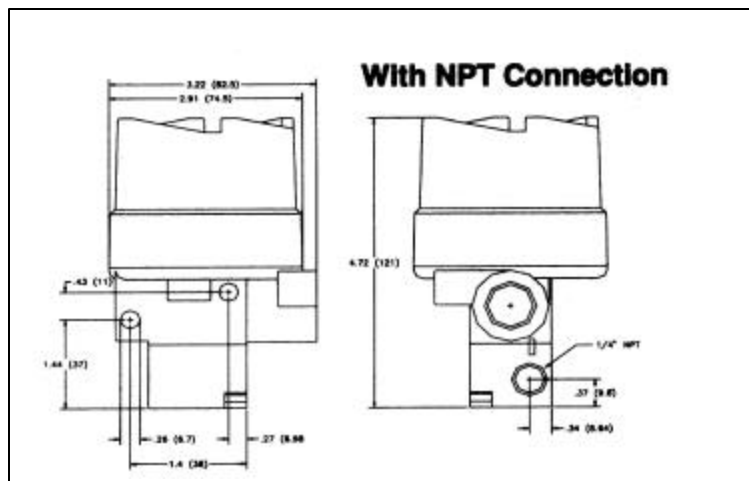
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Repeatability: (ISA 51.1) $\pm 0.25\%$; typically $\pm 0.15\%$.

Dimensional Drawings Standard Metal Housed Units



Dimensional Drawings I/P Units Without Booster - For Close Coupling to Pneumatic Positioners



Model 22/06-68 and 22/06-69 With Booster (without bracket) - FM & CSA Approved

Model 22/06-68: Stainless Steel		
Input	Output	Order Number
4-20 mA	3-15 psi	5220668 102780
4-20 mA	1-18 psi	5220668 102782
4-20 mA	3-27 psi	5220668 102781
4-20 mA	5-25 psi	5220668 102783
4-20 mA	6-30 psi	5220668 102784
Model 22/06-69: Aluminum with Epoxy Coating		
Input	Output	Order Number
4-20 mA	3-15 psi	5220669 102770
4-20 mA	1-18 psi	5220669 102772
4-20 mA	3-27 psi	5220669 102771
4-20 mA	5-25 psi	5220669 102773
4-20 mA	6-30 psi	5220669 102774

Model 22/06-66 and 22/06-67 Without Booster (without bracket) - FM & CSA Approved

Model 22/06-66: Stainless Steel		
Input	Output	Order Number
4-20 mA	3-15 psi	5220666 102788
Model 22/06-67: Aluminum with Epoxy Coating		
Input	Output	Order Number
4-20 MA	3-15 psi	5220667 102778
Model 22/06-66 for Press Fit Mounting: Stainless Steel		
Input	Output	Order Number
4-20 mA	3-15 psi	5220666 653240
Model 22/06/67 for Press Fit Mounting: Aluminum with Epoxy Coating		
Input	Output	Order Number
4-20 mA	3-15 psi	5220667 102711

NEMA 4X Units

NEMA 4X with Booster		
Input	Output	Order Number
4-20 mA	3-15 psi	18311-0-182210170
NEMA 4X without Booster – ¼" NPT		
Input	Output	Order Number
4-20 mA	3-15 psi	18312-0-122211270
NEMA 4X without Booster - Press Fit		
Input	Output	Order Number
4-20 mA	3-15 psi	18312-0-132211270



The Company's policy is one of continuous product improvement and the right is reserved to modify the information contained herein without notice.

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ABB Automation Inc.
125 East County Line Road
Warminster, PA 18974 USA
Tel: 215-674-6000
Fax: 215-674-7183

ABB Instrumentation Ltd
Howard Road, St. Neots
Cambs, England, PE19 3EU
Tel: +44 (0)1480-475-321
Fax: +44 (0)1480-217-948

ABB Instrumentation S.p.A
Via Sempione 243
20016 Pero (Milano) Italy
Tel: +39 (02) 33928 1
Fax: +39 (02) 33928 240