MINIATURE I/P & E/P
MODEL 612000

The Model 612000 is a new series of electro-pneumatic transducers that converts an electrical signal to a proportional output and uses a terminal block connector for electrical connections. It provides precision electro-pneumatic control to actuated valves, positioners, and final control elements and is ideally used for applications that require a vibration-resistant and high-flow control device. The 612000 is designed for intrinsically safe service. It's compact size and accessibility to parts and adjustments allow the unit to be installed in small, space-constraint locations. DIN rail and manifold assemblies are available in kits that provide multiple mounting points. An integral pneumatic volume booster is included in the unit design to provide high flow capacity up to 6.5 SCFM. Zero and span are calibrated by turning easily accessible adjusting screws on the front face of the unit. A thermistor circuit in series with the coil provides temperature compensation.

APPLICATIONS:
The 612000 transducer can be used as an electro-pneumatic control device to operate:
Valve actuators and positioners
Automation systems
Liquid and gas processing systems

MOUNTING:
The 612000 can be mounted at any angle but should be calibrated after mounting. For maximum output pressure stability, the unit should be mounted vertically in a vibration-free location or such that the vibration is isolated to the X and Z axis. The 612000 can also be in-line, panel, pipe, or manifold mounted.

ELECTRICAL CONNECTIONS:
Screw Terminal- Anvil Type
Wire Range (18-22AWG)

SPECIFICATIONS (@ 27 PSI SUPPLY):

Hysteresis	<.75% of span
Repeatability	<.5% of span
Linearity	<.75% of span (Independent linearity)
Flow @ Mid Range	6.5 SCFM (Minimum) (Supply pressure 120 psi, output) pressure @ 15 psi
Maximum Air Consumption	3 SCFH @ 15 psi output
Vibration	<.7% of span per 0.5 g-level 25-100 Hz
Exhaust Capacity	>1.0 SCFM @ 5 psi above set point
Supply Pressure	3 PSI above maximum output to 120 PSI maximum
Input Signal	4-20 mA DC, 0-5 VDC, 1-9 VDC, 1-10 VDC, or 0-10 VDC
Output Signal	3-15 psig or 3-27 psig
Weight	1.3 lbs.
Port Size	1/4" NPT
Supply Pressure Sensitivity	<2.5% of span supply pressure 15 psi
Temperature Range	-20°F to +150°F

DIN RAIL MOUNT
MINIATURE I/P & E/P

FEATURES

- Small footprint, compact size
- Built-in volume booster
- Large screw terminal connections
- Input and output connections on rear and front
- Low air consumption
- Vibration resistant
- FM, CSA, CENELEC intrinsically safe
- Field reversible
- Meets European electromagnetic compatibility standards: CE

OPTIONS

- NEMA 4X rated unit available with ½" NPT connector (Model 612001)
- Manifold mounting

ORDERING INFORMATION

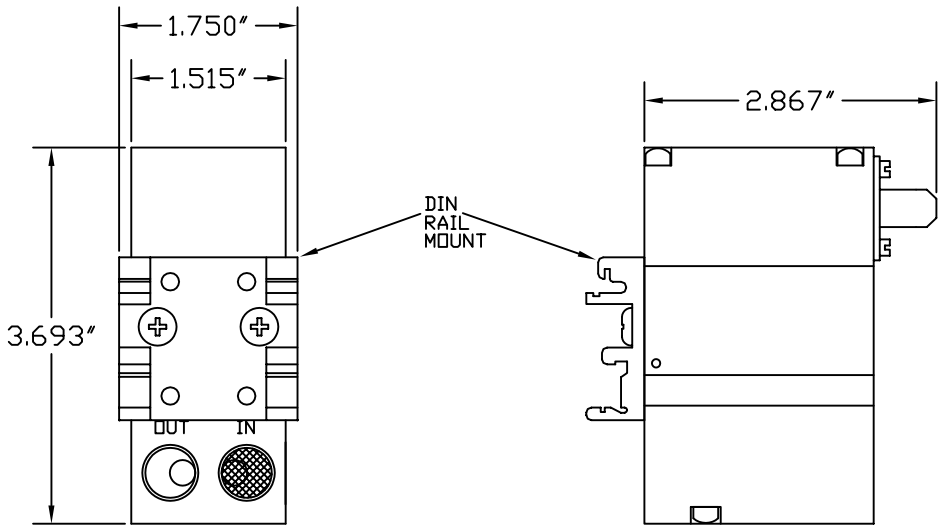
The Model 612000 DIN Rail Mount E/P or I/P Transducer is available with the following input/output ranges.
Input: 4-20mA, 0-5 VDC, 1-9 VDC, 1-10 VDC, or 0-10 VDC
Output: 3-15 psig or 3-27 psig

How to Order:
Specify model number, input, and output range.
Example:

612000
Input: 4 to 20 mA
Output: 3-15 psig

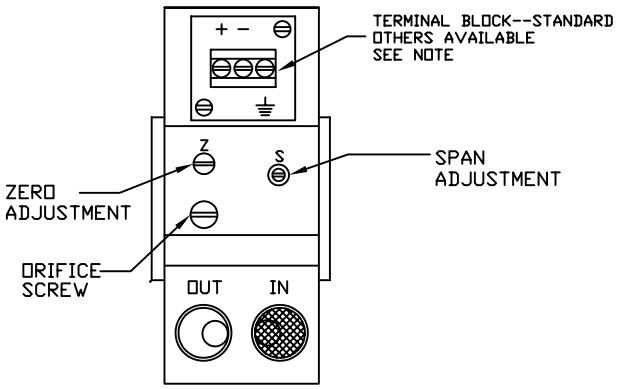
Analynk Wireless, LLC ❖ 790 Cross Pointe Road ❖ Columbus, OH 43230
Phone: (614) 755-5091 Fax: (614) 755-5093 Web: www.analynk.com & www.telmarinc.com

DWG. NO. SD-C-0185B		
REVISIONS		
A	INITIAL RELEASE 04/17/97	REC
B	ADD NOTE AND DIMENSION 06/29/98	REC



REAR VIEW

LEFT SIDE VIEW



FRONT VIEW

DWG SD-C-0185B

AGENCY APPROVALS

FACTORY MUTUAL & CSA

Intrinsic Safety: The 612000 transducers are rated intrinsically safe by FM & CSA for: CLASS I, DIVISION 1, GROUPS A, B, C, D HAZARDOUS LOCATIONS.

ENTITY PARAMETERS

Vmax = 30 V, Imax = 100mA, Ci = 0 uF, Li = 0 mH
Voc and Isc of a barrier shall not exceed Vmax and Imax of the transducer.
(Li + Lwiring) and (Ci + Cwiring) shall not exceed La and Ca of a barrier.

Nonincendive: The 612000 Transducer is approved as nonincendive by FM & CSA for:
CLASS I, DIVISION 2, GROUPS A, B, C, D HAZARDOUS LOCATIONS.
A barrier is not necessary when the 612000 Transducer is in any of these locations.

CENELEC

Intrinsically safe for EExia IIBT4
Input parameters: Vmax =30V, Wmax = 1W, Req = 150 OHMS, Leq = 20mH

Electrical Connections
Both the I/P and E/P versions are two-wire devices, plus a safety ground.
The E/P requires a DC voltage input signal; example: 1 to 9 VDC. The I/P models require an input current of 4 to 20 mA.

MOUNTING

THE 612000 TRANSDUCER CAN BE MOUNTED AT ANY ANGLE BUT SHOULD BE CALIBRATED AFTER MOUNTING. FOR MAXIMUM OUTPUT PRESSURE STABILITY, THE 612000 SHOULD BE MOUNTED VERTICALLY IN A VIBRATION-FREE LOCATION OR SUCH THAT THE VIBRATION IS ISOLATED TO THE X AND Z AXIS. THE 612000 CAN BE IN-LINE, PANEL, DIN RAIL OR MANIFOLD MOUNTED.

AIR CONNECTIONS

1. SUPPLY AIR MUST BE INSTRUMENT QUALITY AIR REGULATED TO BETWEEN 3 PSI ABOVE MAXIMUM OUTPUT PRESSUE AND 120 PSIG.
2. INSTRUMENT-QUALITY AIR CONSISTS OF:
   a. A DEW POINT LESS THAN 35° F
   b. NO PARTICLES LARGER THAN THREE MICRONS
   c. MAXIMUM OIL CONTENT OF 1PPM
3. ALL UNUSED PORTS MUST BE PLUGGED.

SUPPLY:
CONNECT SUPPLY TO EITHER OF TWO 1/4" NPT POSTS MARKED "IN" ON THE BASE OF THE TRANSDUCER. AVOID GETTING PIPE SEALANT INSIDE THE PIPING OR TRANSDUCER.

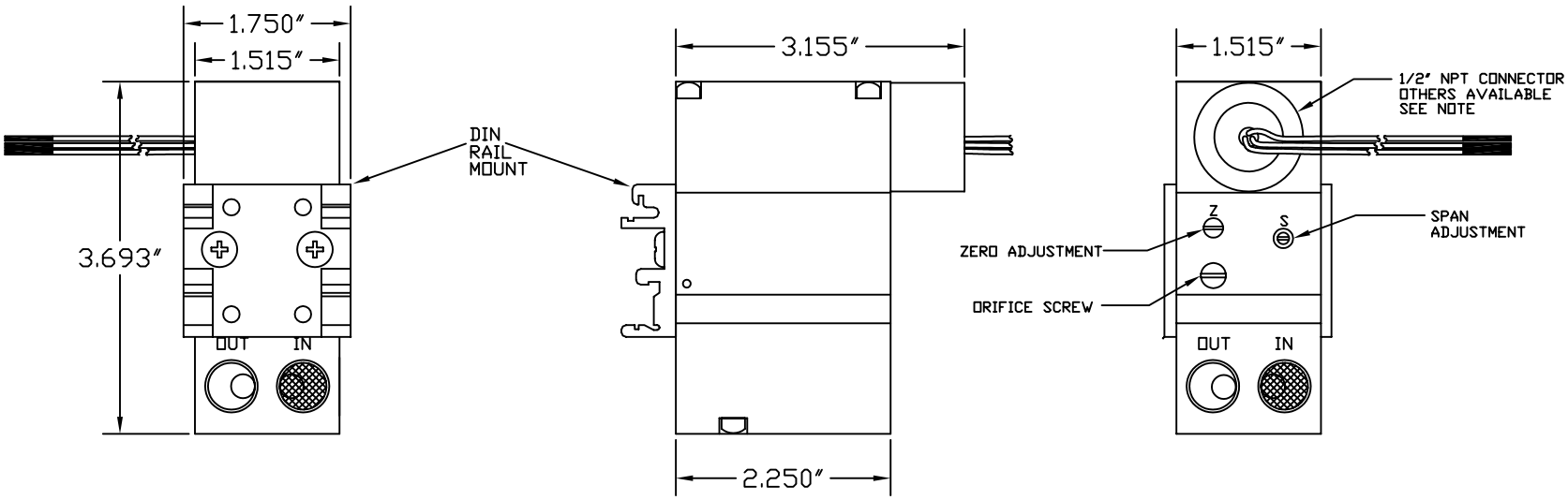
OUTPUT:
CONNECT OUTPUT TO EITHER OF TWO 1/4" NPT POST MARKED "OUT" ON THE BASE OF THE TRANSDUCER. THE SECOND OUT PORT MAY BE USED FOR A PRESSURE GAUGE.

NOTE:
NEMA 4X 1/2" NPT CONDUIT VERSION AVAILABLE.
MODEL 612001. SEE DRAWING NO. SD-C-0210A.

QUOTE OR ORDER NUMBER			**Analynk Wireless, LLC** 790 CROSS POINTE ROAD COLUMBUS, OHIO 43230
Dimensions in inches unless other wise specified			
DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED			TITLE I/P & E/P TRANSMITTER FOR MODEL 612000
BASIC DIMENSIONS	FRACTIONAL	DECIMAL	
UP TO 6	+/- 1/64	+/- .005	
OVER 6 TO 24	+/- 1/32	+/- .005	
OVER 24	+/- 1/16	+/- .010	
SCALE FULL	DO NOT SCALE DRAWING WORK TO DIMENSIONS		
DRAWN REC	DATE 4/10/97		
CHECKED RML	DATE 4/14/97		NEXT ASS'Y
APPROVED DDT	DATE 4/14/97		DWG NO. SD-C-0185B
FILE NAME EU000035.DWG			

DWG. NO.
SD-C-0210A

REVISIONS	
A	INITIAL RELEASE 06/29/98 REC



REAR VIEW LEFT SIDE VIEW FRONT VIEW

DWG SD-C-0210A

AGENCY APPROVALS

FACTORY MUTUAL & CSA

NEMA/ TYPE 4X: The 612001 Tranducers are rated by FM & CSA for:
* DUST-PROOF FOR CLASS II, DIV 1, GROUP E,F,G.
* SUITABLE FOR CLASS III LOCATIONS.

Warning - These ratings are valid ONLY WHEN the cover is fully installed, and the electrical connections conform to required standards.

Intrinsic Safety: The 612001 transducers are rated intrinsically safe by FM & CSA for: CLASS I, DIVISION 1, GROUPS A, B, C, D HAZARDOUS LOCATIONS.

ENTITY PARAMETERS
Vmax = 30 VDC, Imax = 100mA, Ci = 0 uF, Li = 0 mH
T4 Max. Ambient 70°C
Voc and Isc of a barrier shall not exceed Vmax and Imax of the transducer.
(Li + Lwiring) and (Ci + Cwiring) shall not exceed La and Ca of a barrier.

Non-incendive: The 612001 Transducer is approved as non-incendive by FM & CSA for:
CLASS I, DIVISION 2, GROUPS A, B, C, D HAZARDOUS LOCATIONS.
A barrier is not necessary when the 612001 Transducer is in any of these locations.

CENELEC

Intrinsically safe for EExia IIBT4
Input parameters: Vmax =30V, Wmax = 1W, Req = 150 OHMS, Leq = 20mH

Electrical Connections
Both the I/P and E/P versions are two-wire devices, plus a safety ground.
The E/P requires a DC voltage input signal; example: 1 to 9 VDC. The I/P models require an input current of 4 to 20 mA.

MOUNTING
THE 612001 TRANSDUCER CAN BE MOUNTED AT ANY ANGLE BUT SHOULD BE CALIBRATED AFTER MOUNTING. FOR MAXIMUM OUTPUT PRESSURE STABILITY, THE 612000 SHOULD BE MOUNTED VERTICALLY IN A VIBRATION-FREE LOCATION OR SUCH THAT THE VIBRATION IS ISOLATED TO THE X AND Z AXIS. THE 612000 CAN BE IN-LINE, PANEL, DIN RAIL OR MANIFOLD MOUNTED.

AIR CONNECTIONS
1. SUPPLY AIR MUST BE INSTRUMENT QUALITY AIR REGULATED TO BETWEEN 3 PSI ABOVE MAXIMUM OUTPUT PRESSUE AND 120 PSIG.
2. INSTRUMENT-QUALITY AIR CONSISTS OF:
   a. A DEW POINT LESS THAN 35° F
   b. NO PARTICLES LARGER THAN THREE MICRONS
   c. MAXIMUM OIL CONTENT OF 1PPM
3. ALL UNUSED PORTS MUST BE PLUGGED.

SUPPLY:
CONNECT SUPPLY TO EITHER OF TWO 1/4" NPT POSTS MARKED "IN" ON THE BASE OF THE TRANSDUCER. AVOID GETTING PIPE SEALANT INSIDE THE PIPING OR TRANSDUCER.

OUTPUT:
CONNECT OUTPUT TO EITHER OF TWO 1/4" NPT POST MARKED "OUT" ON THE BASE OF THE TRANSDUCER. THE SECOND OUT PORT MAY BE USED FOR A PRESSURE GAUGE.

NOTE:
TERMINAL BLOCK CONNECTOR VERSION AVAILABLE ALSO. MODEL 612000. SEE DRAWING NO. SD-C-0185B.

QUOTE OR ORDER NUMBER	**Analynk Wireless, LLC** 790 CROSS POINTE ROAD COLUMBUS, OHIO 43230
Dimensions in inches unless other wise specified	
DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED	TITLE I/P & E/P TRANSMITTER FOR MODEL 612001
BASIC DIMENSIONS: FRACTIONAL / DECIMAL UP TO 6: +/- 1/64 / +/- .005 OVER 6 TO 24: +/- 1/32 / +/- .005 OVER 24: +/- 1/16 / +/- .010	
SCALE: FULL — DO NOT SCALE DRAWING WORK TO DIMENSIONS	
DRAWN: REC DATE: 06/16/98	
CHECKED: RML DATE: 06/16/98	NEXT ASS'Y
APPROVED: DDT DATE: 06/16/98	DWG NO. SD-C-0210A
FILE NAME: EU000061.DWG	