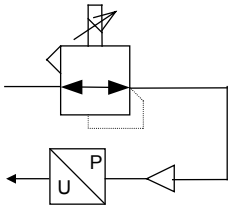
TYPE 440
MULTIFUNCTIONAL ELECTRO-PNEUMATIC CONVERTER

FEATURES

- ***High precision***
- ***4-20mA feedback as standard***
- ***Signal failure indicator***
- ***Failure mode selector***



Functional Symbol

GENERAL DESCRIPTION

Type 440 electro-pneumatic converters combine high precision pneumatic performance with input signal versatility for use with computer and microprocessor based control systems. The type 440 converter accepts a 4-20mA standard control signal or voltage equivalents. Standard additional features includes 4-20mA feedback, signal failure indication and selection of failure mode. These converters are intended for applications in which conventional two wire I/P converters are inadequate.

TECHNICAL DATA

Physical

•Casing	Diecast zinc alloy, black stove enamel finish
•Mounting	Upright, integral mounting bracket (although other mounting orientations are acceptable without recalibration)
•Pneumatic connections	1/4" NPT
•Electrical connections	Via cable glands to Klippon terminal block
•Controls	Trimpots - Span, zero (control and feedback), response rate Switches - Signal freeze or instrument drives down scale, input signal selection Relay - Power/signal (isolated contact pair in relay, NC if signal and power supply present - contact rating - 50VA)
•Weight	2.5Kg
•IP. Rating	IP65
•Temperature Stability (span/zero)	-5°C to +45°C ±0.03%/°C FS change -10°C to +60°C ±0.05%/°C FS change
•Electromagnetic Compatibility	Compliant with the requirements of the EMC directive, assessed against. BS EN50082-2: 1995, BS EN50081-2: 1994. ≤±4% FS susceptibility observed under all test conditions when screened cable is used connected both at source and instrument ends. CE marked.

Note: Instrument performance is guaranteed within the band 5 to 95% of range. Performance variations may exist outside this range.

Electrical

•Supply Voltage	24V ± 10%d.c. 50mA
•Input Signal	4-20mA, 1-5V, 2-10V (selected by switch and connection)
•Input Common Mode	0 to +5V max (control I/p -ve to Voltage Limit(see note 2)supply -ve)
•Input impedance	4-20mA 250Ω; 1-5V, 2-10V 10kΩ
•Feedback Signal	4-20mA (o/p voltage 12V max)

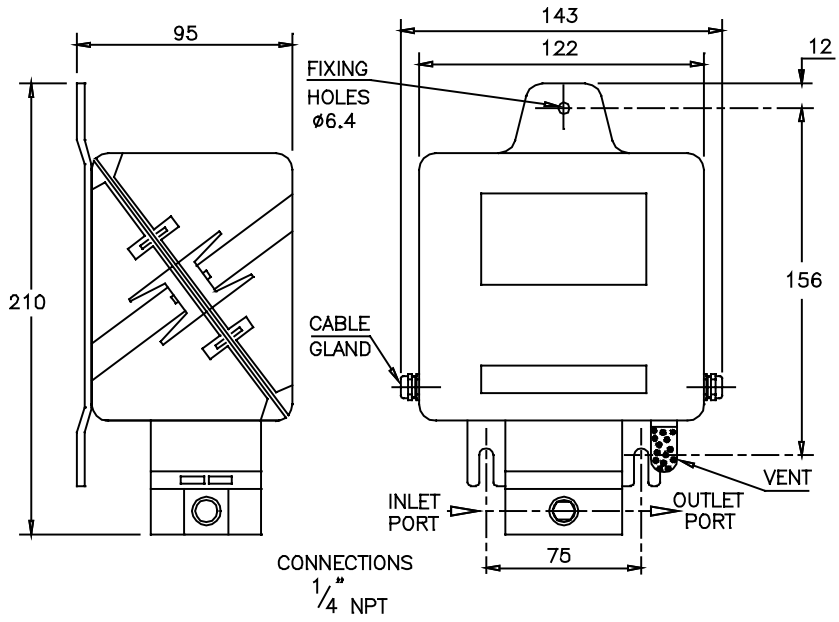
Note 1: Voltage feedback obtainable via load resistor. 1 to 5V - 250Ω , 2 to 10V - 500Ω

Note 2: The electronic circuit is designed to eliminate the common-mode voltage error which can occur due to resistance of long cables (max. resistance 250Ω)

Accuracy

•Output Signal	3bar (0.2psig); minimum outlet pressur. Maximum; less than 7bar (100psig)
•Air Supply	Upto 100psig (7bar);with optional filter regulator-150psig (10bar). Dry, non corrosive air filtered to 5microns
•Flow Capacity	Up to 280Nl/min
•Air Consumption	Low pressure - 0.2l/min typical High pressure - 0.4l/min typical
•Response Time	5 seconds (from 10 to 90% of output pressure)
•Linearity	± 0.5% FS
•Total Error	±0.5% of span typical, independent error (includes combined effect of hysteresis, deadzone and repeatability)
•Stability (6 months)	0.25%(span/zero)
•Failfreeze stability	<±-2% setpoint/hour

Installation Diagram



Connections

1	4-20mA feedback +ve
2	4-20mA feedback common
3	2-10V control input +ve
4	4-20mA/1-5V control input +ve
5	4-20mA/1-5V control input -ve
6	Power supply -ve (common)
7	Power supply +ve
8	Power fail relay contact (isolated)
9	Power fail relay contact (isolated)

Note: Terminals 2 & 6 are connected internally: limited isolation available between 5 & 6

Ordering Information

Pressure range	Part number
3-15psig	870100R
0.2-1bar	872100R
0-100psig	871600R
0-7bar	873600R

Options to special order:

Other pressure ranges are available to special order.
If required a filter-regulator can be supplied separately, please ask for details.

Certification

All instruments are fully tested and an individual test certificate is provided at no extra charge. Each unit is tested for linearity, hysteresis, total error, over pressure, calibration, insulation, drift and failfreeze.

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