

WatsonSmith

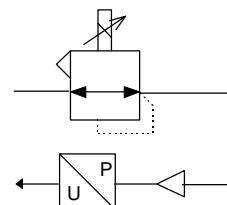
MULTIFUNCTIONAL ELECTRO-PNEUMATIC CONVERTER TYPE 440

FEATURES

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

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.



Functional Symbol

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	Trim pots - 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.

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 280NI/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

ELECTRICAL

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



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.