

WatsonSmith

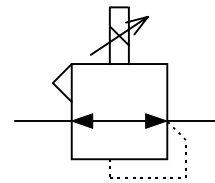
ELECTRONIC CONVERTER CURRENT TO PRESSURE (I/P) TYPE 140 FAILSAFE

FEATURES

- Advanced electronic control
- ATEX certified
- Explosion proof and Intrinsically safe
- Complete Electronics Modularity For Ease of Maintenance
- Jack Socket for On-site Monitoring
- Fail-Safe (unit pressure falls to zero on signal failure)
- Field replaceable filter

GENERAL DESCRIPTION

The 140 proportional I/P converter uses advanced closed loop solid-state electronic control to achieve accurate, high resolution pressure control. It is available in intrinsically safe and Type n versions and its vibration immunity and IP66 weatherproof rating make it ideal for field application.



Functional Symbol

TECHNICAL DATA

PNEUMATIC

•Supply Pressure	1.2-10bar (18-150psig); minimum 3psi above max output pressure
•Output Signal	0.2-1bar (3-15psig)
•Air Supply	Oil free, dry air, min filtered to 50 microns; Internal in-built air filter
•Flow Capacity	> 300NI/min (12scfm)
•Air Consumption	< 2.5 NI/min (0.025scfm) at 50% signal
•Instrument Accuracy	mean <0.1%
•Independent Linearity	mean <0.05% of span
•Hysteresis, Resolution & Deadband	mean <0.05% of span
•Temperature Effect	Typically less than 0.035% span/ °C between -40°C to +85°C
•Supply Sensitivity	Less than 0.1% of span over full supply pressure range.
•Connections	1/4" NPT female standard (plus integral 1/8" NPT gauge ports, 1/8"NPT (exhaust baffle)
•Calibration	Independent control of 0% and 100% set points. Adjustable by potentiometers up to 20% of output range. Unit is factory calibrated to within 1% of span.
•Fail-Safe	Signal falls to below 15mbar (0.2psig) in < 2sec, when input signal fails.
•Tight Shut-off Control	Potentiometer sets input signal failure at 3.5mA.

PHYSICAL

•Operating Temperature	-40°C to +85°C
•Weatherproofing	IP66, Type 4X
•Vibration	Output pressure changes less than 3% for vibration amplitude 4mm 5-15Hz, 2g 15-150Hz
•Electromagnetic Compatibility	Compliant with EC requirements EN 50081-2:1994(Emissions) and EN50082-2:1995(Immunity)
•Material of Construction	Aluminium and zinc diecasting with nitrile diaphragms, black epoxy powder coating standard
•Mass	2.07Kg
•Maintenance	Modular Electronics and in-built filter offered as field replaceable parts
•Mounting Position	Integral bracket allows for surface or 50mm pipe mounting in any orientation. Designed for mounting with 57-73mm pitch U bolts.

ELECTRICAL

•Electrical Signal	4-20mA (two wire) Terminal voltage <6.5V
•Min Operating Current	>3.5mA
•Overload Protection	100mA max overload current
•Insulation Resistance	>100MOhm at 850Vdc, electrical terminals to case
•Connections	1/2" NPT or M20 via adapter; internal terminal block with capacity up to 2.5mm ² cable

All instruments are tested on the Watson Smith Automatic Testing System and an individual test certificate is provided at no extra charge. Each unit is tested for linearity, hysteresis, total error, settling error, over pressure, air consumption, response time, calibration, insulation, start-up current, supply sensitivity and voltage load.

DS140G_09/12/03



Thank you for reading this data sheet.

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



UK Office

Keison Products,

P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.

Tel: +44 (0)330 088 0560

Fax: +44 (0)1245 808399

Email: sales@keison.co.uk

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