

WatsonSmith

MODULAR (I/P) PILOT BOOSTER TYPE 120

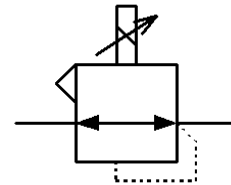
FEATURES

- Low Cost OEM I/P
- Valve Positioner Pilot
- Compact and Rugged
- Specific Application Customising
- Wide Supply Range Available



GENERAL DESCRIPTION

The 120 Pilot Booster I/P converter uses proven moving coil and flapper/nozzle technology, with a built in flow regulator to minimize supply pressure effects. Available in a variety of packages including Explosion Proof enclosures for incorporation into OEM products.



Functional Symbol

TECHNICAL DATA

PNEUMATIC

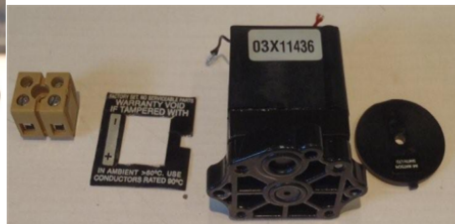
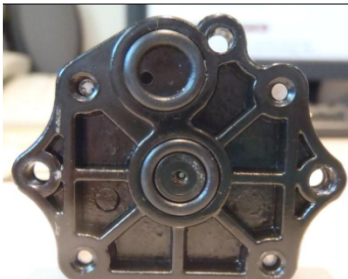
•Output Pressure	0.2-1bar (3-15psig) ;
•Air Supply	Oil free, dry air, filtered to <5 microns; 1.4-10 bar (20-150 psig)
•Flow Capacity	<1.5nl/min
•Air Consumption	<1.5 nl/min typical
•Response Time	<=650msecs from 10 to 90% or <=350ms from 90 to 10% of output pressure into a 4.5cc load)
•Linearity	+/-0.5% of span
•Hysteresis	+/-0.3% of span
•Temperature Effect	Typically less than 0.2% span/degC between -40°C to +85°C
•Supply Sensitivity	Less than +/- 0.15% of span for supply pressure change
•Connections	customised to suit customer requirements

PHYSICAL

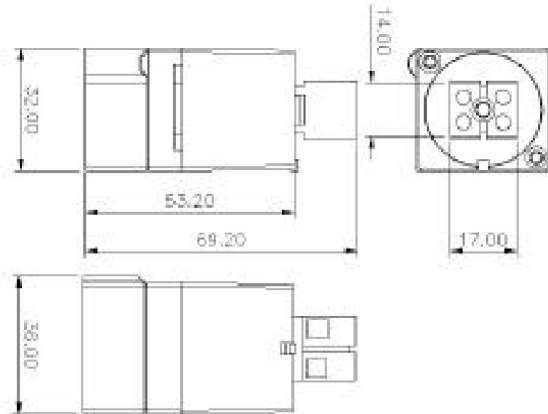
•Operating Temperature	-40°C to +85°C
•Weatherproofing	IP20
•Vibration	Output pressure changes less than 2% for 2g sine 20-100Hz,
•Electromagnetic Compatibility	Compliant with EC requirements EN 50081-2:1994(Emmissions) and EN50082- 2:1995(Immunity)
•Material of Construction	Zinc diecasting with nitrile diaphragms, customer specific enclosures available
•Mounting Position	Any, to be specified by customer

ELECTRICAL

•Electrical Signal	4-20mA (two wire);
•Loop Resistance	230Ohm
•Failure Mode	Signal falls to below 15mbar (0.2psig) in < 2sec, when input signal fails
•Insulation Resistance	>100MOhm at 850Vdc, electrical terminals to case
•Connections	Clamping screw connector terminals or flying leads to customer requirements.



INSTALLATION DIAGRAM



CHARACTERISTIC GRAPHS

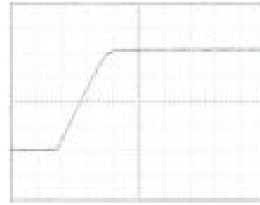


Chart displays 313ms; 10-90% of output pressure

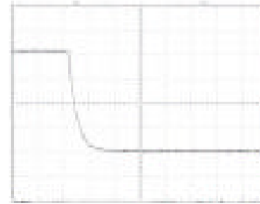


Chart displays 124ms; 90-10% of output pressure

HAZARDOUS AREA CERTIFICATION

The Type 120 can be supplied certified for use in intrinsically safe and flameproof applications, to CENELEC, FM and CSA requirements. For certification and customised units please contact the factory.

ORDERING INFORMATION

Options to special order:

- Standard 1/8" ported base
- Alternative pressure ranges
- Optional Enclosures
- Orientation and Application Specific Calibration set-up