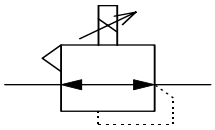
The 421 proportional I/P converter uses advanced electronic control to achieve outstanding performance. It is highly reliable with long life, is free from the effects of vibration and its high density mounting capability makes it ideal for control room applications.

•Advanced electronic control
•High density rail
•Failsafe operation (output pressure falls to minimum on power failure)
•Vibration immune
•Manifold or Rail Mount

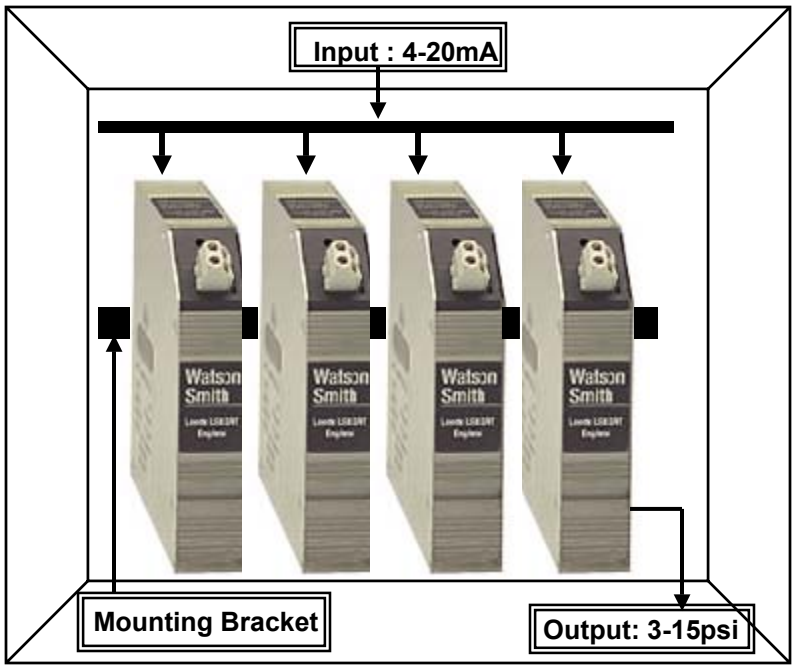
Type 421

I/P Converter



Functional Symbol

TYPICAL APPLICATIONS



Industry:
Ideal for control room installation i.e piloting fluid control processes

Solution:

High packing density for manifold or rail mounting incorporates standard 42 series control system

TECHNICAL DATA

Pneumatic

•Output Pressure	0.2 to 1bar (3 to 15psig); minimum outlet pressure less than 15mbar (0.2psig)
•Air Supply	Oil free, dry air, filtered to 5 microns; 1.5 to 3.5bar (20 to 50psig) or at least 0.7bar above maximum output pressure
•Flow Capacity	Up to 150Nl/min (5scfm)
•Air Consumption	0.2 l/min typical low pressure (0.007scfm)
•Linearity	< 0.5% BFSL
•Hysteresis	< 0.1%
•Response Time	5 seconds (10 to 90% or 90 to 10% of output pressure into a 5 litre load)
•Temperature Sensitivity	Typically less than 1% span for span and zero between 0°C and 50°C
•Supply Sensitivity	Maximum of ±2% of outlet pressure at extremes of supply range
•Port Sizes	1/8" NPT female

Physical

•Operating Temperature	-10°C to +60°C
•I.P. Rating	IP40
•Electromagnetic Compatibility	Compliant and CE marked in accordance with the EC E.M.C. directive. Tested to standards: BS EN50082-2: 1995, BS EN50081-2: 1994
•Material of Construction	Anodised natural aluminium
•Weight	600g
•Mounting Position	The instrument can be mounted in any orientation. A rail clip is provided with each instrument for TS32 (EN50035) / TS35 (EN50022) rail.
•Vibration Effect	The unit possesses a high degree of immunity

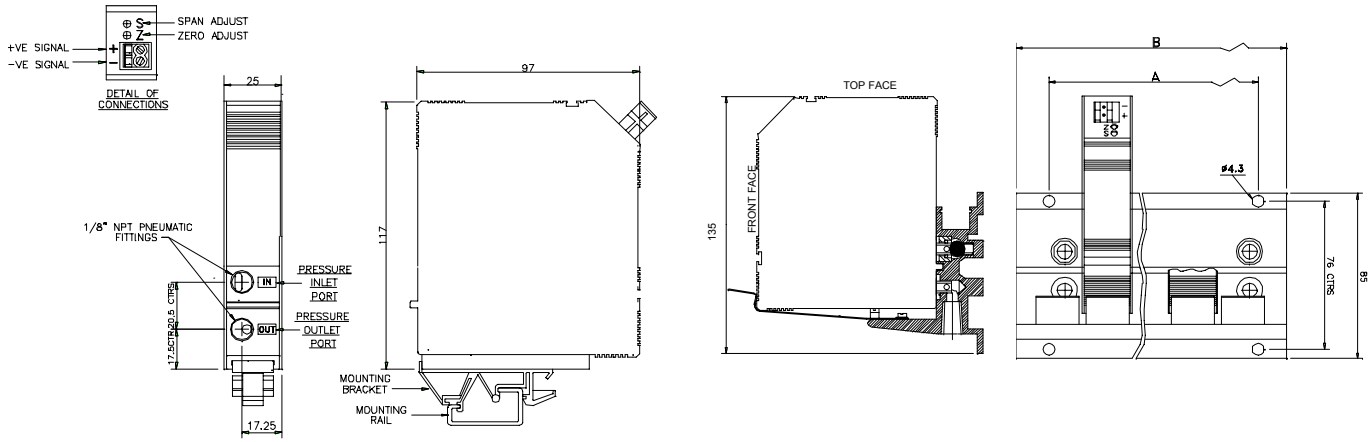
WARNING: Maximum pressure should not be exceeded for safety reasons.

Electrical

•Input Signal	4-20mA (two wire); load presents 10 volts (±0.5V) constant voltage drop to the current source
•Failure Mode	Signal falls to below 15mbar (0.2psig) when input signal fails
•Connections	Two part quick release terminal block with capacity up to 2.5mm^2 cable
•Span/Zero	±20% on Zero & Span Trimpots
• Impedance Input	Loop resistance depends on the input signal current typically 500 – 2500 ohms

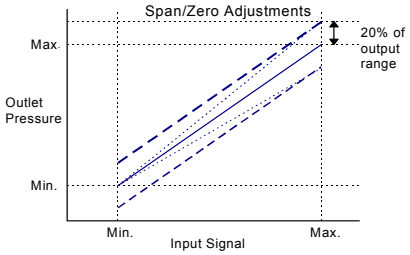
NOTE: It is recommended that an appropriate filter-regulator be fitted to supply all converters

INSTALLATION DIAGRAM



a) BRACKET MOUNTED

CHARACTERISTIC GRAPHS



ORDERING INFORMATION & ACCESSORIES

Standard Models: 4-20mA input, forward action, terminal connector

421	OUTPUT PRESSURE	ORDER CODE
	0.2-1bar	AB2100
	0.4–2bar	AB005X
	3-15psi	AB0100
	2-30psi	AB030X

Options to special order:

Surface mounting bracket

Norgren Ltd.,
Cross Chancellor Street,
Leeds, LS6 2RT. England.
Telephone: +44 (0) 113 245 7587
Fax: +44 (0)113 246 5735
Email: enquiries@norgren.com

Our Ref: ds421N 09/06

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, drop out current, supply sensitivity and voltage load.