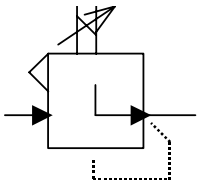
The Type 122E Explosion Proof I/P converter designed for positioner integration, which can typically convert a pneumatic positioner to operate as an electro-pneumatic positioner using proven moving coil and flapper/nozzle technology, with a built in flow regulator to minimize supply pressure effects.

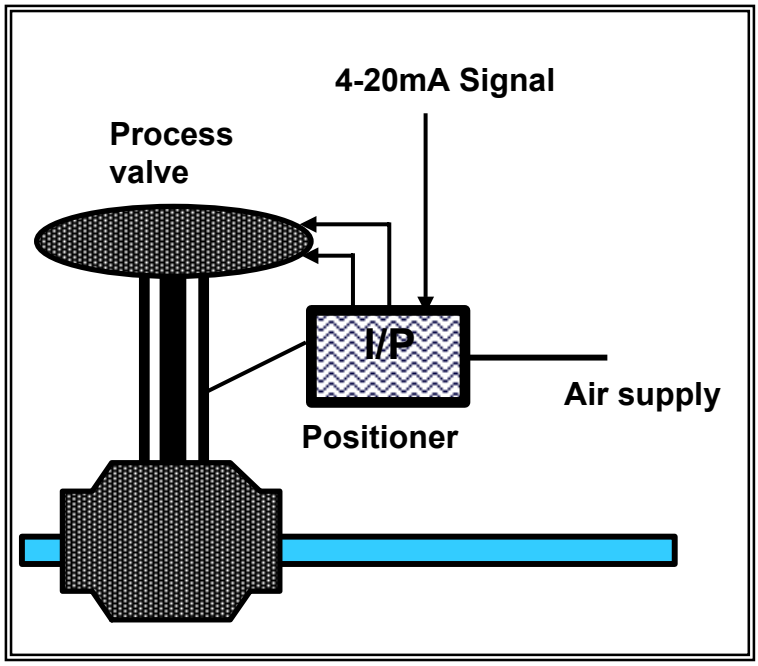
- *Low Cost OEM I/P*
- *Valve Positioner Pilot*
- *Compact and Rugged*
- *Specific Application Customising*
- *Wide Supply Range Available*
- *ATEX Certified*
- *IP66*

TYPE 122E
Explosion Proof I/P



Functional Symbol

TYPICAL APPLICATIONS



Industry:

Any industry requiring higher flows or pressures, i.e Pulp and Paper, Water treatment, Chemical and Power Plant

Solution:

Accurate control of the position of motion control valves via an actuator with accurate positioner control

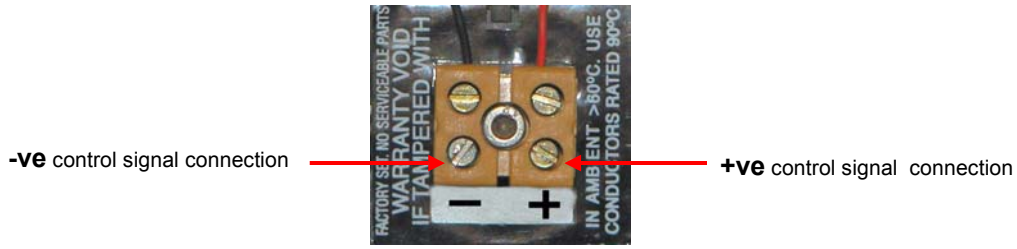
Technical Data

Pneumatic

•Output Pressure	3-15psig;
•Air Supply	Oil free, dry air, filtered to <5 microns; 20-150 psig (1.4 –10bar)
•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 5cc load)
•Linearity	+/-0.5% of span
•Hysteresis	+/-0.3% of span
•Temperature Effect	Typically less than 0.2% span/deg ºC between -40°C to +85°C
•Supply Sensitivity	Less than+/- 0.15% of span for supply pressure change
•Connections	Customised to suit customers requirements

Electrical

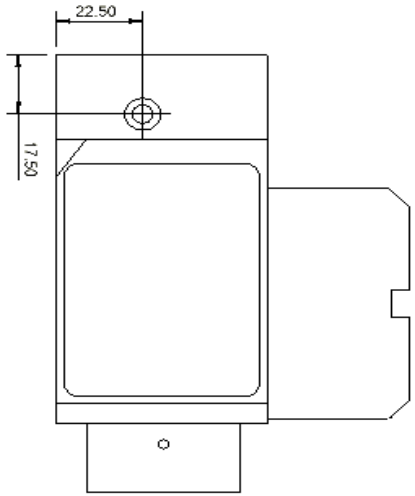
•Electrical Signal	4-20mA (two wire);
•Loop Resistance	<250 Ohm
•Failure Mode	Signal falls to below 1.7psig (0.12 bar) in <2sec, when input signal fails
•Insulation Resistance	>100M Ohm at 850Vdc, electrical terminals to case
•Connections	Clamping screw connector terminals.



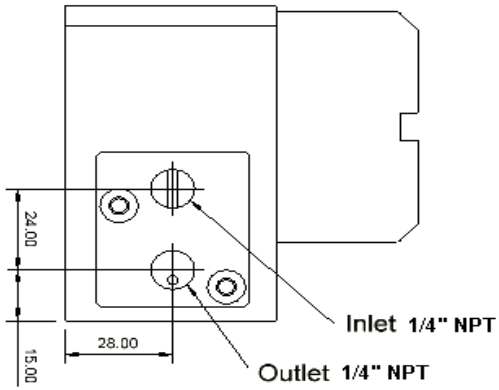
Physical

•Operating Temperature	-40°C to +85°C
•Weatherproofing	IP66
•Vibration	Output pressure changes less than 2% for 2g sine 20-100Hz,
•Electromagnetic Compatibility	Compliant with EC requirements EN 50081-1:1994 (Emissions) and EN50082 2:1995 (Immunity)
•Material of Construction	Aluminium housing with nitrile diaphragms, customer specific enclosures available
•Mounting Position	Any orientation (re-calibration may be required)

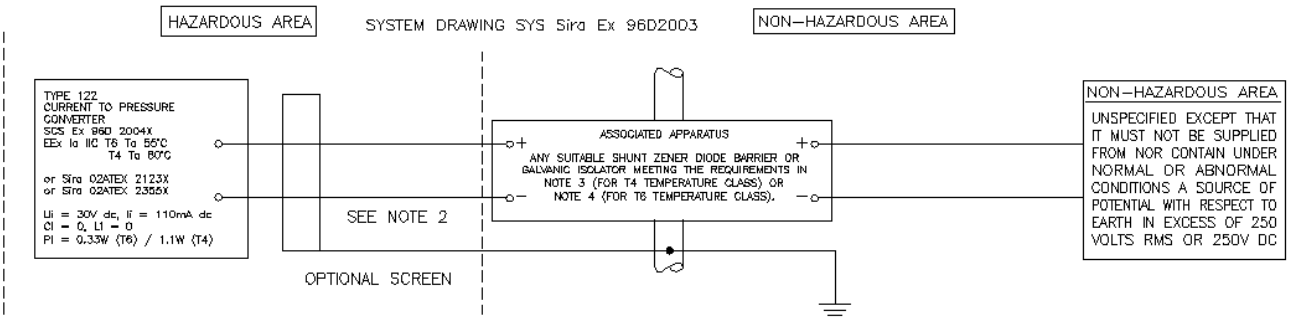
MOUNTING POSITION



PNEUMATIC INSTALLATION



INTRINISICALLY SAFE SYSTEM INSTALLATION



NOTES

1. THE ELECTRICAL CIRCUIT IN THE HAZARDOUS AREA MUST BE CAPABLE OF WITHSTANDING AN A.C. TEST VOLTAGE OF 500 VOLTS R.M.S. TO EARTH OR FRAME OF THE APPARATUS FOR 1 MINUTE.

2. THE CAPACITANCE AND INDUCTANCE OR INDUCTANCE/RESISTANCE (L/R) RATIO OF THE HAZARDOUS AREA CABLES MUST NOT EXCEED THE VALUES SPECIFIED IN TABLE 1.

TABLE 1.

GROUP	MAXIMUM CABLE CAPACITANCE FROM EN 50020: 2002 TABLE A2	MAXIMUM CABLE INDUCTANCE	MAXIMUM CABLE L/R RATIO
IIC	83 nF	2.9 mH	46 µH/Ω
IIB	650 nF	11.7 mH	185 µH/Ω
IIA	2150 nF	23.5 mH	370 µH/Ω

HAZARDOUS AREA

3. ONE CHANNEL OF A POSITIVE POLARITY, 28V BARRIER OR ISOLATOR, CERTIFIED [EEx ia] IIC OR [EEx ib] IIC, WITH OUTPUT PARAMETERS AS FOLLOWS:

Uo NOT GREATER THAN 28V, Io NOT GREATER THAN 110mA,
A SOURCE RESISTANCE OF 255 OHMS MINIMUM
Co AT LEAST 83nF, Lo AT LEAST 2.9mH, Lo/Ro AT LEAST 46µH/OHM
EXAMPLE: MTL 728

4. ONE CHANNEL OF A POSITIVE POLARITY, 28V BARRIER OR ISOLATOR, CERTIFIED [EEx ia] IIC OR [EEx ib] IIC, WITH OUTPUT PARAMETERS AS FOLLOWS:

Uo NOT GREATER THAN 28V, Io NOT GREATER THAN 110mA,
A SOURCE RESISTANCE OF 600 OHMS MINIMUM
Co AT LEAST 83nF, Lo AT LEAST 2.9mH, Lo/Ro AT LEAST 46µH/OHM

5. THE INSTALLATION INCLUDING THE BARRIER EARTHING ARRANGEMENTS (IF APPLICABLE), SHALL COMPLY WITH THE INSTALLATION REQUIREMENTS IN THE COUNTRY OF USE, E.G. IEC/EN 60079-14. INSTALLATION SHALL ALSO BE IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

Dwg No. 96-133E

CERTIFIED PRODUCT
No modifications are permitted without the approval of the SIRA

HAZARDOUS AREA CERTIFICATION

The Type 122E is supplied certified for use in Explosion Proof, Intrinsically Safe and Type nL applications, to ATEX requirements.

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