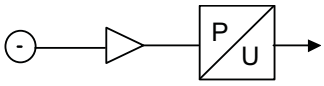
The Type 71 P/I instruments convert pneumatic pressure into electrical signal.

It is a two wire device, uses non-critical power supply and is supplied to IP65.

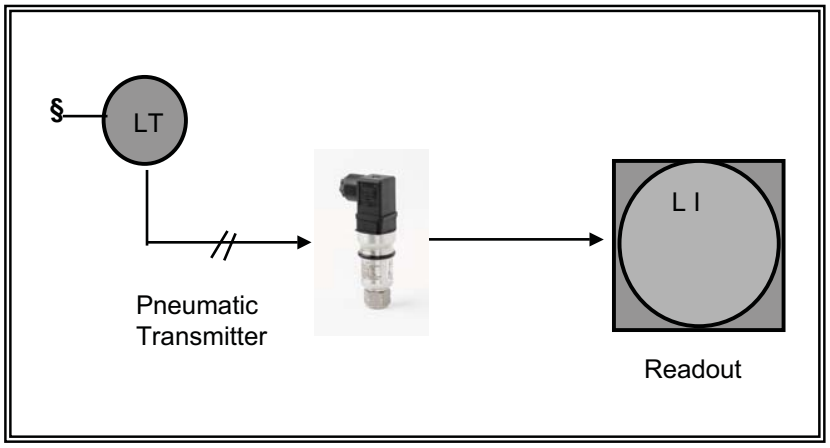
- ***Hazardous Area Approved to ATEX***
- ***Encapsulated electronics for good shock/vibration performance***
- ***A wide range of media compatibility***

Type 71 P/I Converter Intrinsically Safe



Functional Symbol

TYPICAL APPLICATIONS



Industry:
Paper converting, paper processing, wood / pulp processing, steel mills, plastics and rubber manufacture, textile machinery, wire handling.

Any industry requiring a reading of pressure in a pneumatic system converted to an electrical signal:-

- Dancer Arm Control
- Winder System
- Roller Tension System
- Roller Force Control

Solution:

Ensuring your application is operating at the right pressure, the Type 71 measurers output pressure and converts to a signal that can then be used to offer application accuracy.

TECHNICAL DATA

Pneumatic

• Media Compatibility	Fluids compatible with Stainless Steel 316L and Hastelloy C276
• Air Consumption	Nil
• Pressure Ranges	0.2 – 1.0 Bar, 3 – 15psi,
• Over pressure	2 x FS
• Connections	¼" BSP or ¼" NPT female

Physical

• I.P. Rating	IP65		
• Electromagnetic Compatibility	Compliant and CE marked in accordance with the EC E.M.C directive.		
	Tested to standards:	Immunity:	EN 50082-1 : 1995
		Emissions:	EN 50081-1 : 1992
		Surges:	600 V EN 61000-4-5: 1995
		ESD:	EN61000-4-2: 1995
• Material of Casing:	Hastelloy C276/316 Construction Stainless Steel. Transducer: Micro-machined silicon assembly		
• Mass	210g (including socket)		
• Mounting	Direct pipe mounting		
• Installation Torque	16 - 20 Nm		
• Electrical Interface	DIN 43650 plug/socket		
• Electrical connection	PIN 1 Supply Positive PIN 2 Supply Negative Earth not connected		
• Supply Voltage Reversal	Unit will withstand supply voltage polarity reversal without damage		

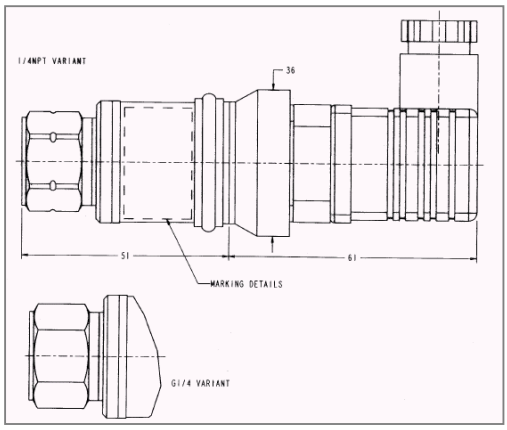
Electrical

• Supply Voltage	9 - 28 Vdc
• Output Current	4 - 20mA

Accuracy

• Zero & Span Setting	±0.5% FS Max. (±5% adjustment via integral pots.)
• Hysteresis, Linearity & Repeatability	±0.2% FS BSL
• Stability	Better than 0.2% FS per year
• Operating Temperature	-20°C to +80°C
• Temperature Effects	±3.0% FS Total error band -20°C to +80°C
• Insulation Resistance	Greater than 10M Ohms at 500 Vdc

INSTALLATION DIAGRAMS



1. The maximum supply voltage (Vmin) that must appear across the transmitter terminals is 9V and is given by :-
   Vmin = Vs – (0.02 x RL)
   WhereVs is supply voltage in volts.
   RL is total loop resistance in Ohms.
   Maximum Supply 28 Vdc

2. Connections: -
   Supply Positive 1
   Supply Negative 2
   Earth Connected to Case

3. The reference port breathes through the plug and socket, use cable with breather tube or make similar arrangement.

4. Intrinsic Safety is void if cable screen is connected to earth at transmitter terminals.

5. Input parameters:
   Ui = 28V; Ii = 180mA; Pi = 1W; Ci = 0.08uF; Li = 0.49mH

CERTIFICATION

Hazardous area approvals:
The I.S. Type 71 is compliance with the Essential Health and Safety Requirements and has been assured by compliance with:
EN 50014: 1997 + amendments 1 & 2
EN 50020: 2002
EN 50284: 1999

Includes the following marking: II 1G EEx ia IIC T4 (-20°C<= Tamb <= +80° C)

Certificate Number: Baseefa 02ATEX0235X

Declaration: This equipment is designed and manufactured to meet the essential health and safety requirements not covered by EC Type Examination Certificate. The intrinsically safe equipment is designed and manufactured to protect against other hazards as defined in paragraph 1.2.7 of Annex II of the ATEX Directive 94/9/EC.

All equipments are individually tested and complies with the specification.
A test certificate is supplied with every unit upon request.

Requirements in Hazardous area (EEx ia)

Installation
WARNING: Do not use tools on the equipment that might cause incentive sparks - this can cause an explosion.

WARNING: Do not connect an energised electrical circuit in a hazardous area while explosive atmospheres are present - this can cause an explosion. Isolate the power supply to the equipment first.

Position
Attach the equipment in a safe configuration that prevents unwanted stress (vibration, physical impact, shock, mechanical and thermal stresses). Do not install the equipment where it can be damaged by material that causes corrosion. This includes all foreseeable materials. Provide additional protection for equipment that may be damaged in serviced.

Electrical connections
The power supply must be from an Intrinsically Safe (IS) supply or from an IS diode safety barrier, and must not be more than the maximum input values.
Connect the earth/ground connections that are applicable to the installation. The equipment is resistance to an AC test voltage of 500 V RMS as specified in EN50020.
Maximum input values
The total power to the signal supply/supply connections must not be more than 1.0 W
Maintenance
Clean the case with a moist, lint-free cloth and a weak detergent.
Repair
Do no do local repairs. Return the equipment to the supplier.
Special condition for safe use
If the cable has a plastic boot, this is a possible electrostatic hazard. Do not rub or clean the boot with a dry cloth.

Your distributor:
Coulton Instrumentation Ltd
17 Somerford Business Park, Christchurch, BH23 3RU, UK
Tel: +44 1202 480 303
E-mail: sales@coulton.com
Web: www.coulton.com

Our Ref: dsATEX Type 71 10/06
Controlled Doc. 2006-137a

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, air consumption, response time and supply sensitivity.

Our policy is one of continuous research and development. We therefore reserve the right to amend without notice the specifications given in this document. Customers are responsible for ensuring that the product is used only for the purpose for which it is intended. In case of doubt Norgren will be pleased to advise.