

PRESSURE TRANSDUCER

A range of transducers covering the middle pressure ranges and extending up to 2,000 bar.

All transducers are available with either BSP or metric external threads to simplify transducer installation.

The pressure sensing element is a one piece design, machined from hard drawn beryllium copper bar, which in its heat treated condition exhibits excellent mechanical properties

The robust construction of this transducer is perfectly suited for the measurement of static or dynamic pressures in pneumatic or hydraulic systems, the bonded strain gauge system providing maximum freedom from secondary resonance.



Type XP22

Key Features

- 1/4" BSP – 3/8" BSP or M16 x 1.5 thread options
- High accuracy, better than 0.20%
- Bifilar Ni Cr bonded strain elements
- Pressure range from 200 to 2,000 bar (2,000 to 30,000 psig)
- Choice of electrical termination.

Specification

Performance

Combined non-linearity and hysteresis	+/- 0.20% F.R.S
Full range sensitivity (FRS)	1.5 mV/Volt nominal
Residual unbalance	0.02 mV/Volt
Resolution	Infinite

Electrical

Excitation voltage	20 Volt dc or Volt ac rms maximum
Bridge output resistance	350 Ohms +/- 5%
Insulation resistance	100 megohms minimum at 100 Volt d.c.
Electrical connection : Standard	6 pin bayonet lock connector (mates with MIL-C-26482 size10)
Option (a)	1 metre 6 core screened PTFE insulated flying lead
Option (b)	2 metre 6 core PVC moisture proof(Max operating temp 85°C)

Environmental and Physical

Compensated temperature range	-20 °C to +100 °C
Operational temperature range	-20 °C to +100 °C
Thermal zero shift	+/- 0.02% F.R.S. /°C
Thermal sensitivity shift	+/- 0.02% F.R.S. /°C
Material in contact with pressure media	Beryllium Copper
Static volume	Less than 2.0cc
Volumetric change with pressure	Negligible
Pressure overload	50% above rated pressure
Weight	210 gm approx
Case material	Stainless steel

Dimensions

1/4" BSP Male Pressure Port	26 mm dia x 107.5mm overall length
3/8" BSP Male Pressure Port	26 mm dia x 110.0mm overall length
M16 x 1.5 Pressure Port	26 mm dia x 110.0mm overall length

Ordering Information

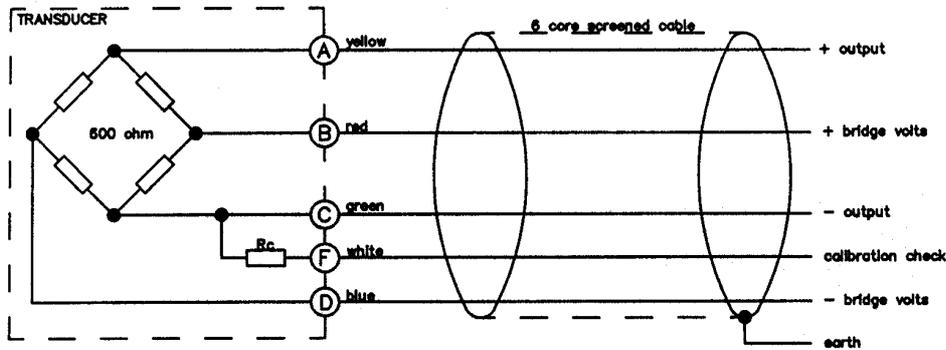
Specify transducer type, pressure range, pressure port thread and options.

Design authority and manufacture by Barnbrook Systems Limited

Barnbrook Systems reserves the right to alter specifications and design without notice

Data Sheet No
DSXP22-0403

Sheet 1 of 2



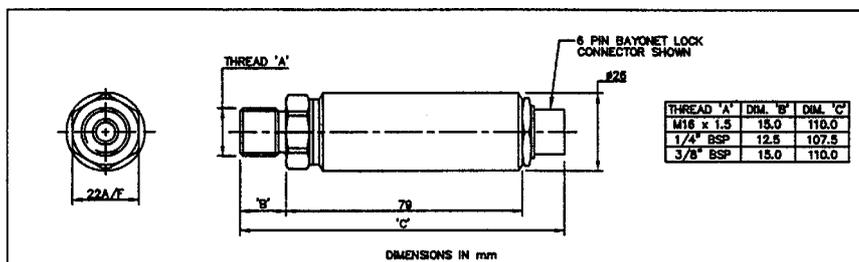
CALIBRATION CHECK

The Calibration Certificate for the XP22 transducer records the change in output (as a percentage of the full range pressure) when a resistor of declared value is connected across pins C and F of the transducer bridge. This procedure enables the desired transducer sensitivity to be obtained without recourse to a deadweight pressure tester.

PRESSURE RANGES

Bar		200	250	350	500	700	1000		1500	2000
Psig	3000	3000	3500	5000	7500	10000	15000	20000		30000

DETAIL DIMENSIONS



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Sheet 2 of 2

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