

A range of high-pressure transducers designed for the measurement of static or dynamic pressures in hydraulic and pneumatic systems.

The output from a bonded strain gauge pressure sensing element is coupled to a low drift, solid state d.c. amplifier providing a 1 volt or 5 volt output signal at full range pressure.

Operation may be from either single or dual d.c. supplies with a 1 mA or 5mA current capability.



Type HR22

Key Features

- Choice of input and output options.
- Output current up to 5 mA with full short circuit protection.
- Low output resistance permits direct operation of meters.
- Pressure range from 10 to 2000 Bar (150 to 30000 Psig).

Specification

Performance

Combined non-linearity and hysteresis	± 0.25% F.R.S
Full range sensitivity, Option (a)	1 Volt -0/+5%
Option (b)	5 Volt -0/+5%
Residual unbalance	Between 0 and 10% F.R.S.
Maximum output current	0 - 1 mA on single supply 0 - 5 mA on single supply
Resolution	Infinite

Electrical

Excitation voltage	Option (c)	± 10 or 20 Volts d.c.
	Option (d)	± 12 or 24 Volts d.c.
	Option (e)	± 15 or 30 Volts d.c.
Current drain		50mA typical
Insulation resistance		100 megohms minimum at 100 Volt d.c.
Output resistance		Less than 1 Ohm on dual supply
Wide band noise		10 mV to peak
Electrical connection : Standard		6 pin bayonet lock connector (mates with MIL-C-26482 size 10)
	Option (f)	1 metre 6 core screened PTFE insulated flying lead
	Option (g)	2 metre 6 core PVC moisture proof(Max operating temp 80°C)

Environmental and Physical

Operational temperature range	-20 °C to +80 °C
Thermal zero shift	± 0.02% F.R.S. / °C
Thermal sensitivity	± 0.02% F.R.S. / °C
Material in contact with pressure media	Stainless steel
Pressure overload	50% above rated pressure
Weight	350 gram approx
Case material	Stainless steel

Dimensions

1/4" BSP Male Pressure Port	30.5mm dia x 133.5mm overall length
3/8" BSP & M16 x 1.5 Pressure Port	30.5mm dia x 136.0mm overall length

Ordering Information

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

Data Sheet No
DSHR22-0305

Sheet 1 of 2

Design authority and manufacture by Barnbrook Systems Limited

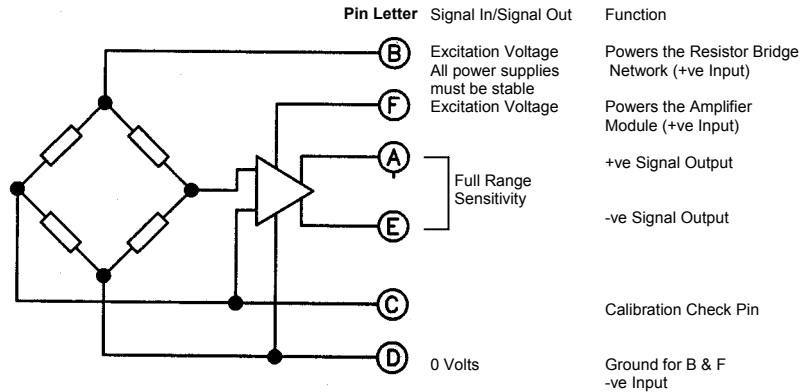
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INTERSONDE

PRESSURE TRANSDUCER Type HR22

CALIBRATION CHECK

To use the calibration check facility, join pin D to pin C. This will unbalance the bridge and produce a change in output approximately equal to 90% of the full range sensitivity (F.R.S.) The exact figure is recorded on the Calibration Certificate.

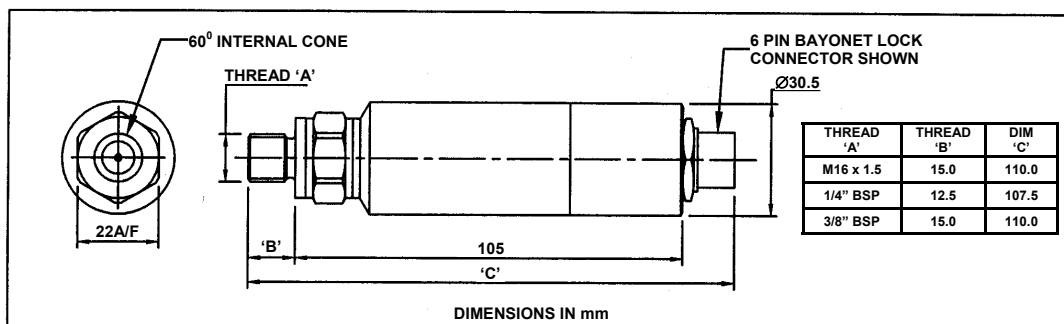


PRESSURE RANGES

Bar	10		20	35	50	70	100		200	350	500	700
Psig	150	200	300	500	750	1000	1500	2000	3000	5000	7500	10000
Port	1/4" BSP or M16 x 1.5											

Bar	1000		1500	2000
Psig	15000	20000		30000
Port	3/8" BSP or M16 x 1.5			

DETAIL DIMENSIONS



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