

TransInstruments

OPERATING & INSTALLATION INSTRUCTIONS

SERIES 2000

PLEASE READ CAREFULLY BEFORE INSTALLING

PART NUMBER: 558140-0032

ISSUE E

INTRODUCTION

The Series 2000 pressure transducers use molecularly bonded high output strain gauges to provide 100mV output for full range pressure, when used with a 10V d.c. power supply.

Series 2000 high output pressure transducers and transmitters are fitted with a hybrid amplifier providing various optional (at time of order) voltage outputs, and a 4-20mA current output capable of being used in control and indicating loops without further amplification.

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GENERAL

- Pressure range must be compatible with the maximum pressure being measured.
- Pressure media must be compatible with the transducer/transmitter wetted parts listed in these instructions.
- Liquid must not be allowed to freeze in the pressure port.
- The gasket must be fitted under the electrical connector.

MECHANICAL INSTALLATION

Pressure Connections: G $\frac{1}{4}$ external to BS.2779 compatible with ISO 228 (recommended seal Part Number 232646-0002 or Dowty Part Number 400-021-4490-41)

Mounting: Omni-directional self supported directly into the pipework. Use a 19mm AF (3/4") spanner on the hexagon provided to apply a maximum torque of 15.8 Nm.

OPERATION

Having installed the transducers as instructed, they are ready for use. Before applying power, check that the correct polarity and excitation levels are being applied. See Table 1 for electrical connections. Mating connector miniature DIN type Part Number 557230.

GROUNDING

All versions should be grounded by the installation pipework. If this is not possible then the high output transducers and transmitters should be grounded by an earth wire connected to the appropriate pin. Four core screened cable should be used with the millivolt version with the screen earthed at the instrumentation end.

CALIBRATION

Transducers are calibrated to the datum requested at time of order; this can be identified by the sixth letter of the identification code as follows:-

- A - Absolute datum
- G - Gauge datum vented to atmosphere via the electrical connector.

CHARACTERISTICS

The total permissible resistive load in the loop (to include all the cable resistance) can be from 'zero to 50 x (supply volts -12) ohms' e.g. with a 24 V d.c. supply the permissible load is from zero up to 600 ohms.

FIGURE 1

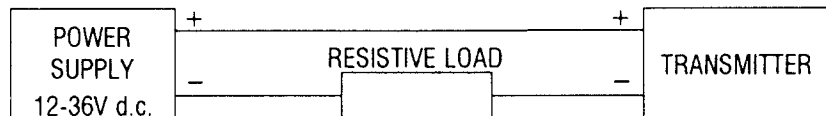
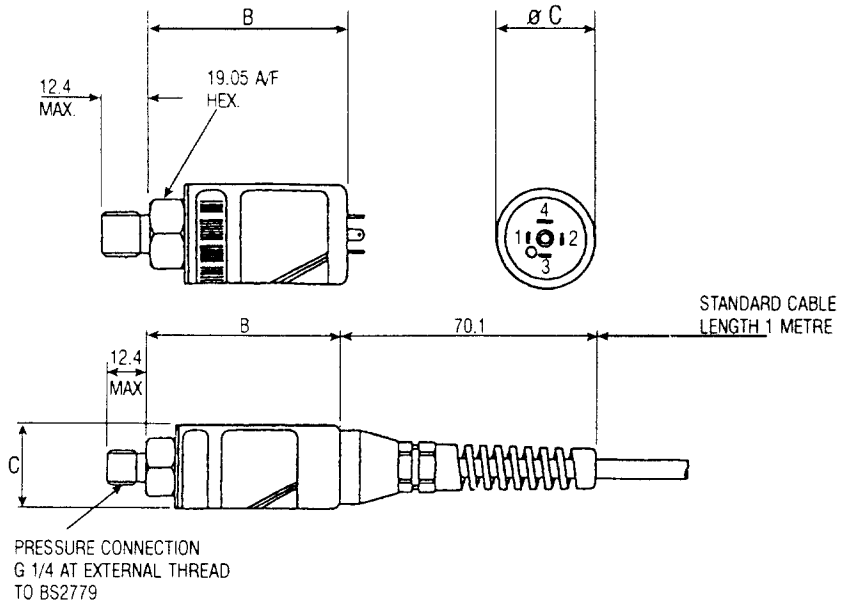


TABLE 1

ELECTRICAL CONNECTOR	OUTPUT					
	Millivolt		Voltage		Milliamp	
4 POLE MINIATURE Pin 1 Pin 2 Pin 3 Pin 4	Supply +ve Output +ve Output -ve Supply -ve		Supply +ve Common -ve Output +ve Case Earth		+ve -ve Case Earth	
CABLE Red White Blue Yellow Black Green	Supply +ve Output -ve Output +ve Supply -ve		Supply +ve Output Common		+ve -ve	
ELECTRICAL Rated Min/Max	10V d.c.		5V Span 24V d.c.	10V Span 24V d.c.	4-20 mA 24V d.c. 12 - 36	
DIMENSIONS (mm)	B	C	B	C	B	C
	55	27.3	63.6	27.3	63.6	27.3



WARRANTY

We guarantee this instrument against faulty workmanship and materials for a period of one year from date of delivery. The Company undertake to repair, free of charge, ex-works any instrument found to be defective within the specified period providing the instrument has been used within the specification in accordance with these instructions and has not been misused in any way.

Detailed notice of such defects and satisfactory proof thereof must be given to the Company immediately after the discovery and the goods are to be returned free of charge to the Company, carefully packed and accompanied by a detailed failure report. See "RETURN TO FACTORY".

WETTED PARTS

17-4 PH stainless steel plus Nickle Braze to BS1845 : NK3/HTN2.

SERVICING

The instruments cannot be repaired locally and if damaged should be returned to ourselves at the address shown or to accredited dealers when a replacement/repair is required:

**TRANSINSTRUMENTS
LENNOX ROAD
BASINGSTOKE
HANTS
RG22 4AW**

RETURN TO FACTORY

PLEASE NOTE: To comply with Health and Safety requirements, the instrument must be clean and safe to handle and accompanied by a formal statement to that effect duly signed by an authorised officer of the Company.

Any instrument returned without certification will be quarantined and no action will occur until cleared. It may ultimately be returned to you and subject to a transportation charge.

MAINTENANCE

Routine Inspection: Not required except for periodic inspection of the cable and connector to ensure that these are neither damaged nor softened by incompatible liquid.