

Ajax

Series **TWTC** 4-20mA HIGH TEMPERATURE TRANSDUCER



- True two wire 4-20mA Operation
- High Noise Immunity
- Compact Rugged Construction
- Wide Supply Voltage 11.6 to 40V DC
- Inconel Sensing Probe
- Range 0-1100°C
- Shock/Vibration resistant to 30g for 40ms
- Plug in Design

The Bamford Ajax series TWTC High Temperature Transducers are designed to give all the advantages of a high accuracy, two-wire instrument combined with compact rugged construction, ideal for industrial and marine applications. The two wire operation allows signal and power to be supplied on one simple wire pair by modulating the power current in proportion to the signal level. The transducer is thus immune from voltage drops from long cable runs avoiding the requirement for on-site calibration and noise from motors, relays, switches and other industrial equipment. Advanced laser trimmed thick film integrated circuit technology provides an instrument which is not only compact but extremely reliable with a wide operational temperature range and protection against reverse polarity, R.F.I. and voltage spikes. The transducers are normally supplied factory set and sealed to 4-20mA span for direct interchangeability without on-site calibration. The 'plug-in' design enables ease of installation and removal.

F. Bamford (Instruments) Ltd.
Ajax Works,
Whitehill,
Stockport, SK4 1NT. United Kingdom.

Telephone: 0161-480 6507
Fax: 0161-474 7990
Web: www.bamfordinstruments.com
Email: sales@bamfordinstruments.com

Specifications

INPUT

Temperature Range	0°C – 1100°C
Supply	11.6-40 Volts d.c.
Power Supply Rejection	135dB
Electrical	2 Wire

OUTPUT

Span	4-20mA
Load Resistance (max.)	50 X (supply volts – 11.6)
Short Circuit Duration	Continuous to ground
Accuracy	The combined non-linearity, hysteresis and non-repeatability at reference conditions is typically less than 0.25% span.
Total Error Band Calibration	Worst case combined error from all sources including non-linearity, hysteresis, non-repeatability, thermal zero shift, thermal span shift and thermal stability when cycled over -10°C to +85°C, not greater than +3% span relative to a calibration at reference conditions

ENVIRONMENTAL

Temperature Range of Instrument Body	-40°C to +85°C
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PHYSICAL

Material in Contact with Temperature media	Inconel
Sensing Element Temperature Probe	Chromel Alumel (mineral insulated) to BS EN 60584 Part 4:1996 Class 1 Type K 6mm diameter X 150mm long (or to order)
Tested	Shock/Vibration tested to 30g for 40ms.

Dimensional Drawing

