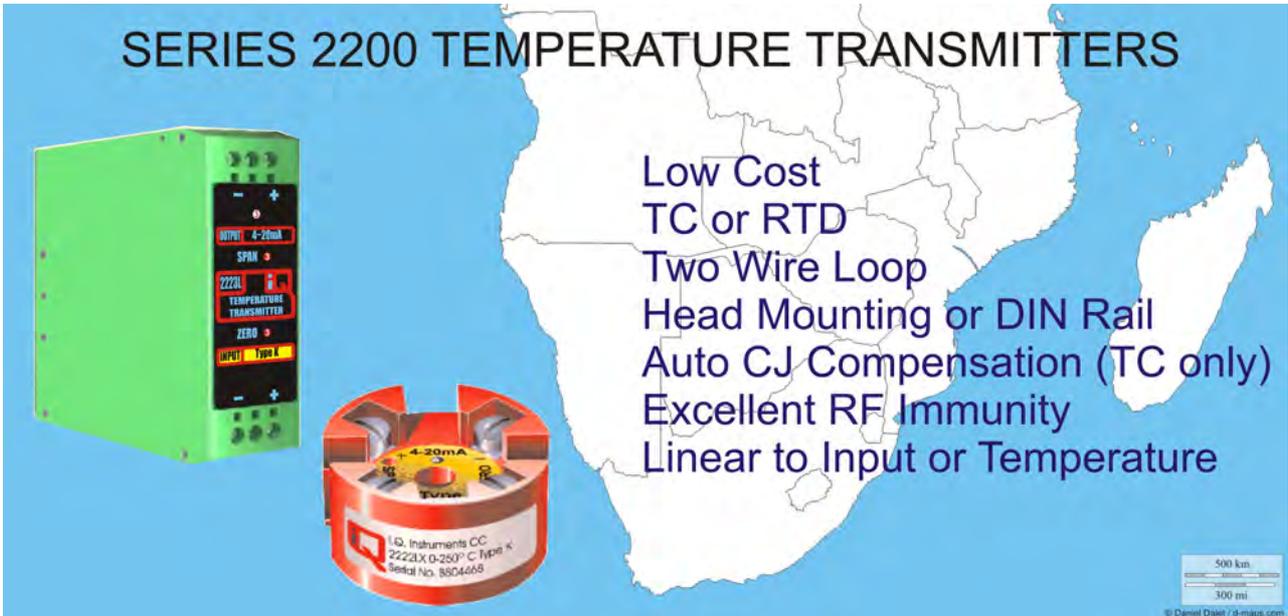


SERIES 2200 TEMPERATURE TRANSMITTERS



The series 2200 Temperature Transmitters are designed to fit into standard weatherproof heads used on RTD or thermocouple assemblies to provide a 4-20mA transmission signal. The use of these transmitters reduces the possibility of EMI pick-up in cables, and also eliminates the high cost of compensating cable in thermocouple installations.

Two sizes are available, a DIN/ANSI version which fits both types of head, and a miniature version for KS heads. Also available is a version which clips to "U" and "G" DIN rails.

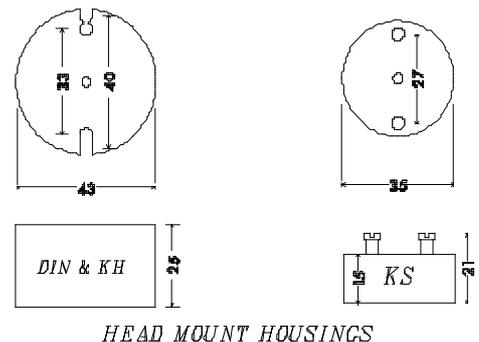
The instruments may be calibrated for any type of thermocouple and for any range with a minimum span of 4mV. When used with thermocouple inputs the amplifier incorporates an automatic cold junction (CJ) compensation circuit which covers the ambient temperature range of the instrument. Two variations are available, the first has an output proportional to the millivolt input (model 2220, 2222, 2223), the second has a signal output proportional to temperature (model 2222L, 2223L).

There is a choice of linearized or non-linearized outputs for resistance inputs. Three-wire input is standard. The model 2230, 2232 & 2233 may be calibrated for most types of resistive sensors including Pt100, Ni120, and PTC or NTC thermistors. Linearization of the sensor characteristic is available as the 2232L & 2233L, the accuracy of linearization depending on the device used. The model 2240L, 2242L & 2243L have been specially designed for three wire Pt100 sensors. They feature a current bridge circuit on the input which ensures optimum accuracy of compensation for lead resistance. A unique continuous linearizer provides better accuracy than the usual breakpoint techniques.

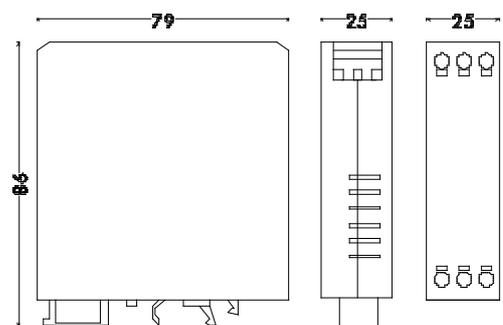
In both RTD and thermocouple models the instruments are provided with MOV protection against surges produced in the transmission lines, as well as stray voltages which may be picked up by the measuring elements. Care has also been taken in the design of the electronic circuit to minimise interference from RF transmissions in the region of the instrument. A LED is fitted to provide indication that the transmitter is powered and operational.

High quality, high stability components are used throughout to ensure long term trouble free operation.

Selected models are available with certification to Ex ib T5 on request.



HEAD MOUNT HOUSINGS



DIN RAIL CLIP MOUNT HOUSING

SPECIFICATIONS

The accuracy of the instruments as stated below is specified for 0% to 100% of the span.

KS HEAD DIN/ANSI HEAD DIN RAIL	2220 2222/2222L 2223/2223L	2230 2232/2232L 2233/2233L	2240L 2242L 2243L
POWER SUPPLY	12~32V DC	12~32V DC	10~36V DC
INPUT	Thermocouple, mV, mA	RTD, Thermistor	Pt100 3-Wire
MIN. SPAN	4mV	10% of initial resistance	20 °C
C.J. COMP.	T/C 0~50°C ± 1°C	Not Applicable	Not Applicable
OUTPUT SIGNAL		4~20mA	
BURNOUT	Upscale Standard approx.23mA	Up (23mA) or Down depends on failure	Up (34mA) for any broken lead or open circuit sensor
AMBIENT TEMP.	-5 to 60 °C	-5 to 60 °C	-20 to 80 °C
HUMIDITY LIMITS	0-90% RH Non Condensing		
TEMP. DRIFT	±1.0µV/°C Typ.	±0.02°C/°C Typ.	±0.02°C/°C Typ.
BASIC ACCURACY	<0.1%	<0.1%	See below
LINEARIZATION ACCURACY (L)	<0.5% Type J,K,N <1.0% Type R,S,T Others on request	Greater of 0.2% of span or 0.2°C for Pt100 Others on request	Greater of 0.15 °C or 0.15% of span.

ORDERING INFORMATION

- 2 = DC voltage current or thermocouple input
- 3 = Pt100, Pt1000 & other resistance inputs
- 4 = Pt100 (Using Custom IC)
- 5 = Potentiometer input
- 6 = pH/ORP input
- 7 = Frequency input
- 8 = AC voltage or current Input

4~20mA
Transmitter

L = Linear to temperature
Blank = Linear to input

I = Intrinsically Safe
Blank = Standard Unit



- 0 = KS Head Mount
- 1 = KH Head Mount*
- 2 = DIN/KH Head Mount
- 3 = DIN Rail Mount 25mm wide
- 4 = DIN Rail Mount 40mm wide
- 5 = DIN Rail Mount 90mm wide

L Sensor (Specify)

Range (specify)

* Obsolete - available to special order only - use dual purpose housing #2 for standard units

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