



# RTD-HEAD

## RTD INPUT IN-HEAD TRANSMITTER

- Field Configurable RTD Type & Input Range
- Linearisation of Input
- High Noise Immunity
- High Accuracy
- Low Cost



### Description

The RTD-HEAD is a low cost, high accuracy 4-20mA temperature transmitter mounted in a DIN standard housing.

The unit accepts an input from a resistance thermometer type sensor and outputs a 4-20mA signal proportional to the required temperature range. The range required is user selectable using the on-board push button switch.

The unit can be configured for zero and span as well RTD type using the fitted push button switch.

Another useful feature is the provision of a large central hole in the unit which allows up to 4mm diameter RTD's to be withdrawn and replaced without removing the transmitter or field wiring.

### General Specifications

#### Input Types

PT100, PT500 or PT1000 Resistance Thermometer

#### Recommended Operating Conditions

Output Current 4-20mA  
Output Resistance 0-800  $\Omega$  at 24V input

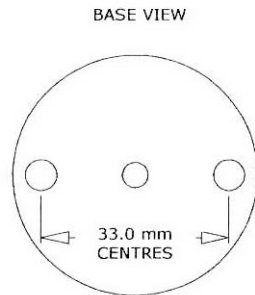
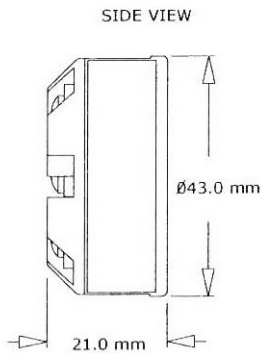
#### Environmental Conditions

Storage Temperature -40 to 90  $\equiv$ C  
Operating Ambient -20 to 70  $\equiv$ C  
Relative Humidity 0 to 95 % RH



## Performance Characteristics

Parameter	Min	Typ	Max	Comments
Supply Voltage	8V	24V	30V	
Output Current	3.8mA		22mA	Current Limited
Accuracy		$\pm 0.1\% \text{C}$	$\pm 0.2\% \text{C}$	
Output Linearity Error			$\pm 0.1\%$	
Temp Coefficient			$\pm 0.01\% \text{C} / \text{C}$	
Time Constant (10-70%)		500ms		
Operating Ambient	$-20\% \text{C}$		$70\% \text{C}$	
Relative Humidity	0%		95%	Non-condensing
EMC	BS EN61326			
Notes	Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. Device is protected against reverse polarity connection. Accuracy figures based on 24V loop supply, 10 $\Omega$ loop resistance, and an ambient temperature of 20 $\% \text{C}$ .			



### Installation Data

<b>Mounting</b>	In Head
<b>Orientation</b>	Any
<b>Conductor size</b>	0.5-4.0mm
<b>Insulation Stripping</b>	10mm
<b>Weight</b>	Approx 26g
<b>Screw Terminal Torque</b>	0.4Nm max

### Connection Details

1. Output Channel +ve
2. Output Channel -ve
5. Input Channel +ve
4. Input Channel -ve
3. RTD 3<sup>rd</sup> Wire

### Ordering Information

**Please supply:**

<b>Part Number:</b>	RTD-HEAD
<b>RTD Type:</b>	PT100, 500 or 1000
<b>Temperature Range:</b>	e.g. 0-500 $\% \text{C}$
<b>Sensor Break:</b>	Upscale or Downscale