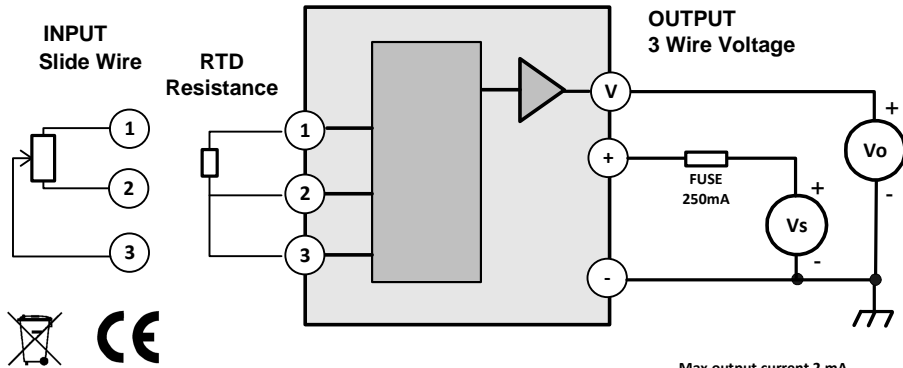




## HTR200V / HTR201V USER GUIDE

RTD / resistance or slide wire Input : Three wire (0 to 10) V output  
Important : Read and understand this document before any installation.



Max output current 2 mA  
Min Load 5000 Ohms

### Description

This device is a cost effective "smart" transmitter head that accepts resistance signals including RTD sensors and converts them to a standard industrial three wire voltage transmission signal over a user programmed range. PC configuration allows the user to select Sensor type, Range, Units output signal range and error signal without requiring calibration equipment. Configuration is performed quickly using our USB port driven configurator by simply connecting to the device power connector and following the software instructions. Configuration set up may be saved as a file on the PC for later use. Additionally, the user may read live process data when connected to the PC, allowing for sensor offset calibration, where the user can enter an offset value to correct for any sensor offset. Two part screw terminals are provided for sensor and loop wiring.

### Important safety Information

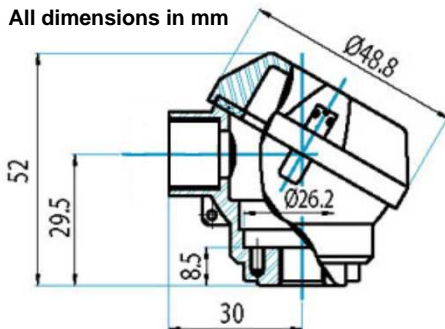
To maintain CE compliance all input wires must be less than 3 metres.  
The product contains no user serviceable parts, or internal adjustments. No attempt should be made to repair this device. Faulty units must be returned to supplier or manufacturer for repair or replacement.  
This product must be installed by competent qualified personnel.  
All electrical wiring must be installed to comply with the area standards, regulations.  
Before attempting electrical connection ensure all supplies are switched off.

#### PROTECTION LIMITS:-

Supply	30 V dc ( reverse protected to -30 V dc)
Supply Current on over voltage	+ 100 mA (when supply exceeds 30 V dc protection device will conduct )
Ambient	(-40 to 85) °C
Output	± 12 V @ 50 mA

### Mechanical Details

All dimensions in mm



The head is available with two styles of probe entry, M10x0.1 or 1/8" BSP. The device must be installed with adequate protection from moisture and corrosive atmospheres. The cable entry is M16, the correct type cable gland must be used to match cable size and operating environment and provide protection to at least IP54. Care must be taken with device location to ensure the ambient temperature does not exceed the specified operating temperature.

Enclosure colour silver.

To gain access to connections un-screw two slotted screws.

Every effort has been taken to ensure the accuracy of this document, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.

# Installation

For full specification please refer to product data sheet. Installation is normally performed in the following order. If the head has been purchased as part of a probe assembly ,steps (1 to 3 ) will have been completed. The user can reconfigure the transmitter range on a completed probe assembly by following from step 1. For advanced user configuration for custom sensors and user linearisation contact technical support at the address overleaf

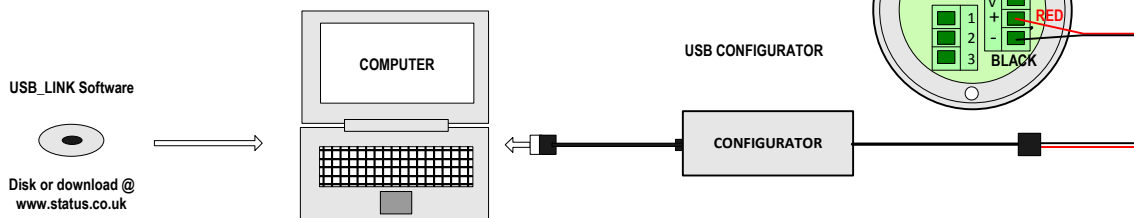
1. Configuration
2. Probe Assembly
3. Wire Sensor
4. Install Assembly
5. Wire the voltage output connections

Connect either the Red or Grey/Black wire to the +ve Terminal dependent on USB Model

## 1. Configuration



**WARNING - DO NOT CONNECT CONFIG MODULE WHEN HTR200-V IS POWERED**



Follow the instructions provided by software menus, refer to device data sheet for list of configurable parameters. Factory default PT100 range (0 to 100) °C, upscale burnout and (0 to 10) V output range .

## 2. Probe assembly

The head is available with two styles of probe entry M10 x 1.0 or 1/8" BSP. All sensor connections must be isolated from probe sheath.

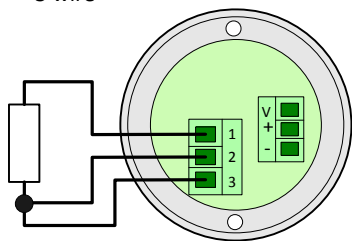
## 3. Wire sensor

Sensor connections are as follows. To maintain BS EN61326 compliance sensor wires must be less than 3 metres. All sensor connections must be isolated from ground. A three way two part connector is supplied for sensor connection.

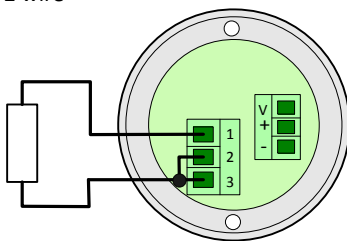


Sensor RTD or Resistance (0 to 10.5 ) Kohm

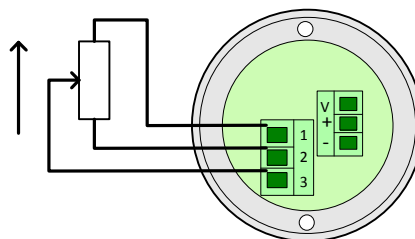
3 wire



2 wire



Slide Wire (1 to 100) Kohm



## 4. Install assembly

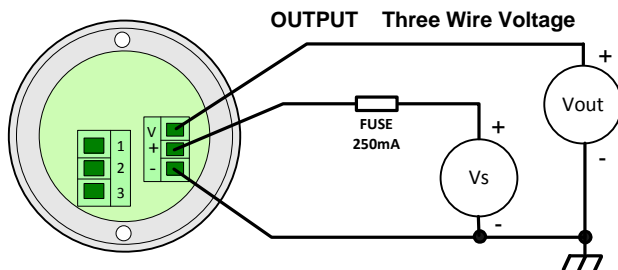
Care must be taken to ensure the device is located to ensure the ambient temperature does not exceed the specified operating temperature of (-40 to 85) °C

## 5. Wire Output and Supply



**Incorrect connection or over voltage may result in failure of unit**

A three way two part connector is supplied for power and output connection. Twisted pair or screened cable is recommended for output wiring. To comply with CE regulations, the output must be earthed at one point normally at the power supply.



**Vout - Output Voltage full range (0 to 10) V dc**

**Vs Supply Voltage (12 to 30) V dc**

Use a power supply with a current limit of less than 150 mA or a fused supply with a 250 mA quick blow fuse. Upto 20 units can be protected via the one fuse.