

# Flexible RTD Sensor

## ( R100 / RTD )

Flexible sensor for temperature sensing of tanks and vessels.

### R Series Solution

- Available for use in safe and hazardous areas.
- Enclosures suitable for Gas Group IIA, IIB and IIC.
- Ingress Protection IP66.
- Full range of accessories and termination kits available.

### INTRODUCTION

As part of our commitment to innovation in the industry, Heat Trace Ltd is offering a customised Exd solution.

This flexible RTD sensor assembly is equipped with a 3 wire Pt100 RTD temperature sensor with simplex configuration.

The Pt100 & sensor provides a flexible solution in terms of using electronic temperature controllers which can process signals from Pt100.

Flexible RTD sensor assemblies are ideal for sensing the temperature of vessels / tanks or equipment with uneven surfaces or surfaces with higher insulation thickness where it is difficult to install RTD assembly with a rigid stem. The sensor is secured to the surface with our range of adhesive aluminium tapes, dependant on system temperatures.

The enclosure is made of high grade, cast aluminium and painted with RAL 7035 paint.



The Heat Tracing Authority™

## SPECIFICATION

### ENCLOSURE:

Material:	Standard Copper Free Aluminium
Paint shade:	RAL 7035, light grey
Protection:	EX (db) - IP66
Rated voltage:	1.1kV AC / DC
Area suitability:	Zone 1 / Zone 2, IIA / IIB / IIC
Cable entries:	1 off (for control cable)
Earthing:	Internal and external earthing
Sensor Type:	3 wire Pt100 Simplex (standard)
Temperature measuring range:	-100°C to 600°C
Sensor lead protection:	Stainless steel conduit
Sensor lead length:	Standard 1.5m
Number of terminals:	3 off (1 live, 1 Neutral & 1 Earth)

### APPROVAL DETAILS:

ATEX	-	CML 23ATEX1502X
IECEX	-	IECEX CML 23.0177X
UKCA	-	CML 23UKEX1503X

### EQUIPMENT MARKING:

#### IECEX:

Gas: Ex db IIC T6/T5 Gb  
Dust: Ex tb IIIC T85°C/T100°C Db  
-60°C or -20°C <Ta< +45°C / +60°C / +75°C

#### ATEX/UKCA:

Gas:  II 2 G D Ex db IIC T6/T5 Gb  
Dust:  II 2 G D Ex tb IIIC T85°C/T100°C Db  
-60°C or -20°C <Ta< 45°C / +60°C / +75°C

### STANDARD KIT CONTENT:

- Junction box with specified entries fitted with with sensor, Din rail, terminal & accessories (terminal, end plate, stopper, shorting link, terminal marker which ever applicable).
- 2 off stainless steel earthing stud.
- O ring, grub screw, allen key for grub screw.
- Stainless steel certification plate.
- Stainless steel tag plate.
- 2 off M8x12 Stainless nut, bolt and washer set for mounting
- Cable entry marking sticker.
- External earthing stud is fitted with PVC sleeved copper lug.
- Earthing sticker
- Instruction manual
- Wiring diagram

### SAFE USE:

Only certified cable glands & accessories of required Ex protection shall be used.

Each entry shall have no more than one thread adaptor. Astopping plug shall not be used with a thread adaptor.

If holes or unused cable entry are left open, explosion protection can no longer be guaranteed.

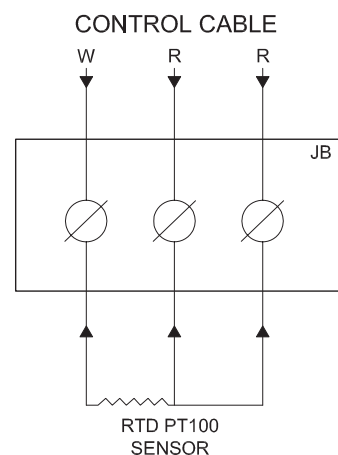
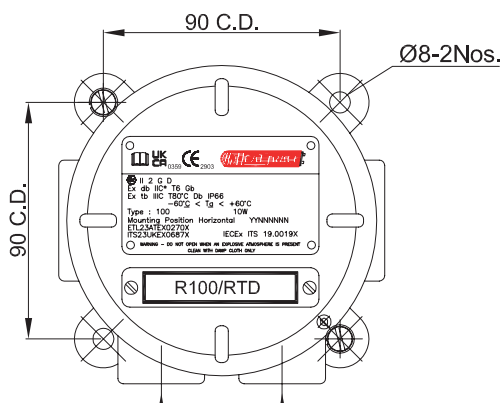
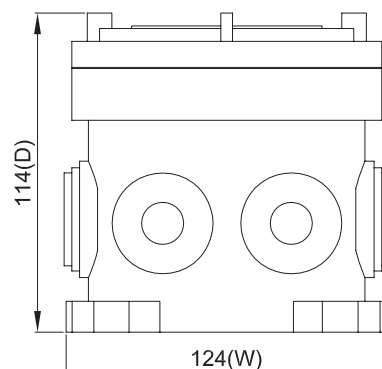
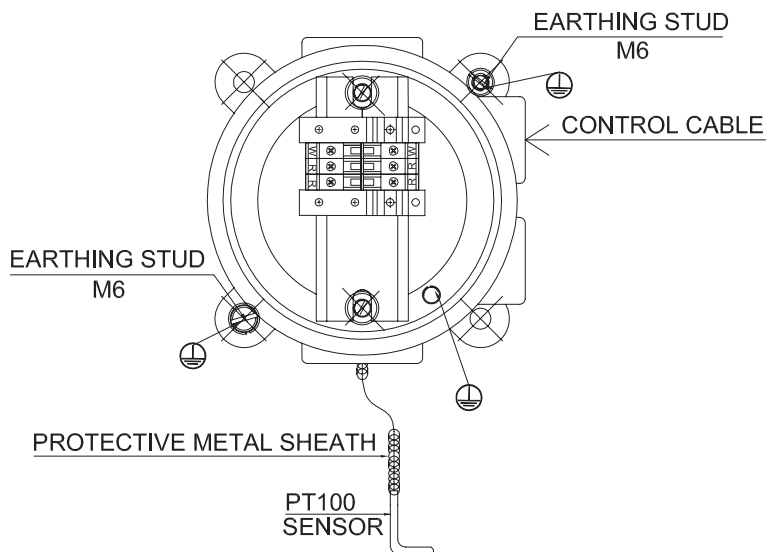
Close open holes using stopping plugs approved for required type of protection.

### ACCESSORIES:

Heat Trace Ltd supply a complete range of accessories including termination/splice kits, end seals, junction boxes and controls.

# FLEXIBLE RTD SENSOR

PART NO. : R100/RTD/F



Description	Part number	Entry size for control cable	Sensor length (M)
Flexible RTD Sensor	R100/RTD/F	M20	1.5

Note: 1) All dimensions are in mm with tolerance of  $\pm 5\%$ .  
2) External earthing stud is fitted with PVC sleeved copper lug.



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