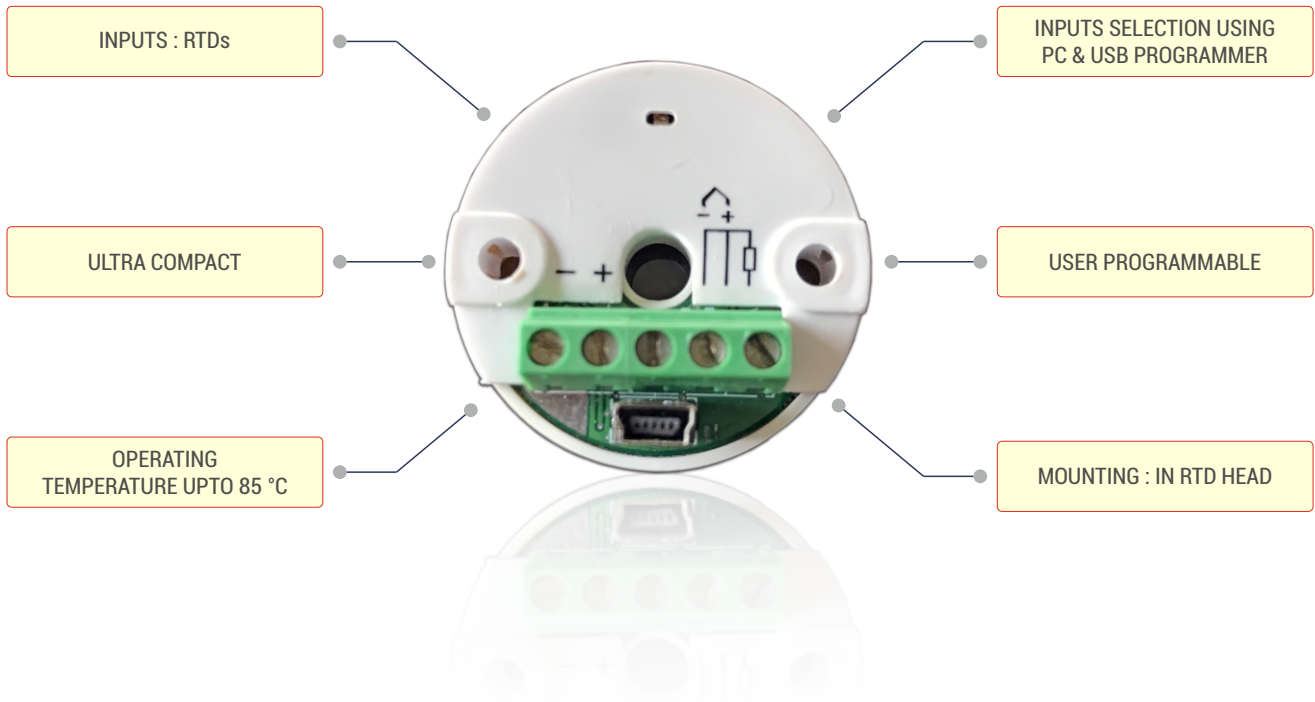


2-WIRE TEMPERATURE TRANSMITTER

RTD, NON-ISOLATED, PC PROGRAMMABLE



APPLICATION AREAS

- Head mount temperature transmitter to convert RTD input signals into a scalable 4 to 20 mA analog output signal
- Inputs : Resistance thermometers (RTD)
- Mounting : In RTD head

FEATURES

- User programmable with PC based utility software and USB configurator
- 2-wire technology, 4~20 mA analog output
- Accuracy over total ambient temperature range
- Active temperature compensation
- Supply range 7.5~45 VDC
- User programmable measurement range, unit, bias, preset output, etc

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SPECIFICATIONS

All specifications at ambient of 25 °C, 24VDC unless specified otherwise

INPUT Input type RTD Range limits RTD excitation Underranging OVERRANGING		Pt100, Pt1000 (2-wire, 3-wire) See Table 1 0.250 mA (0.1 mA for Pt1000) Linear upto 3.8mA Linear upto 22mA
SENSOR BREAK DETECTION Preset output		Upscale ~ 22 mA Downscale ~ 3.8 mA
OUTPUT Output signal Load Response time Switch on delay		4~20 mA Max (V power supply - 7.5V) / 0.0208A Approx 500 ms ≤ 5s
ACCURACY Accuracy Temperature coefficient of accuracy Lead resistance effect Pt100, 3-wire Supply voltage effect Supply ripple effect, 50/60hz, 5 Vp - p Long term stability Common-mode rejection ratio (CMRR) CJC error		See Table 1 See Table 1 0.1°C upto 50 Ω individual lead resistance ± 0.001% of span / V ± 0.005% of span ≤ 0.05% / year >120db ± 0.5 °C
POWER SUPPLY Supply voltage Reverse polarity		7.5~45 VDC Protected
ENVIRONMENTAL CONDITIONS Ambient, storage Ambient, operation Relative humidity		-40 to 85 °C (-40 to 185 °F) -20 ~ 85 °C 0 ~ 95%
ENCLOSURE Material Mounting Connection, single/ stranded wires Weight Protection		Body : PC Cover : ABS DIN B-head or larger ≤ 2.5 mm ² , AWG 14 19.6 grams IP20
PROGRAMMABLE PARAMETERS * List of parameters		Input type Unit Sensor break detection Offset for PV Digital filter Range
* USB configurator DCC501 USB to serial converter can be used to program the SCC643 transmitter		
Important Note: Input/Output isolation is not provided. In certain applications the product may not work satisfactorily. In addition, there is risk of damage of connected equipment in case of high voltage getting connected to the input. Customers are advised to use models with input/output isolation wherever necessary.		

2-WIRE TEMPERATURE TRANSMITTER

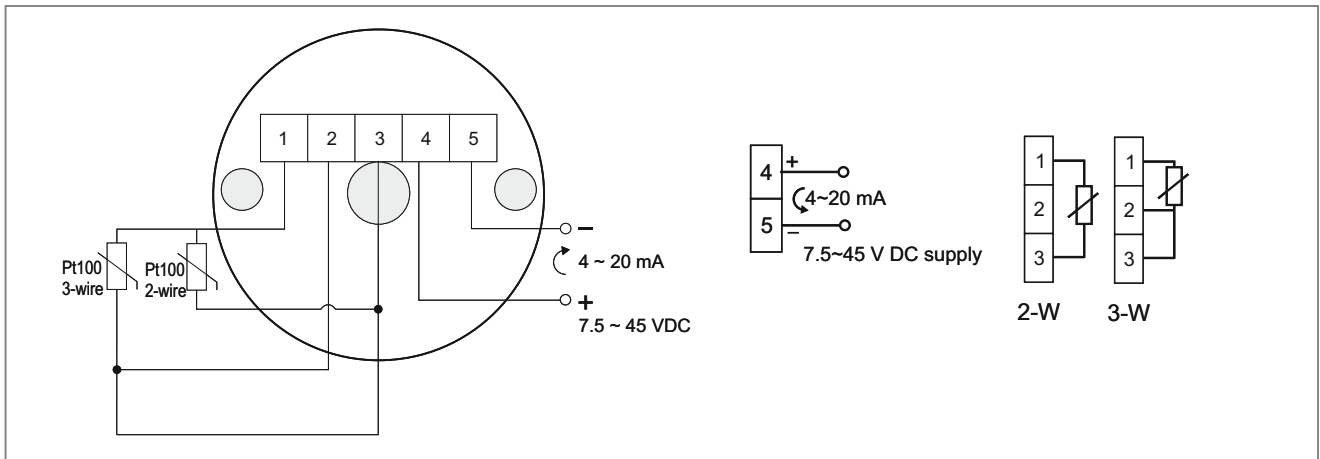
RTD, NON-ISOLATED, PC PROGRAMMABLE

TABLE 1

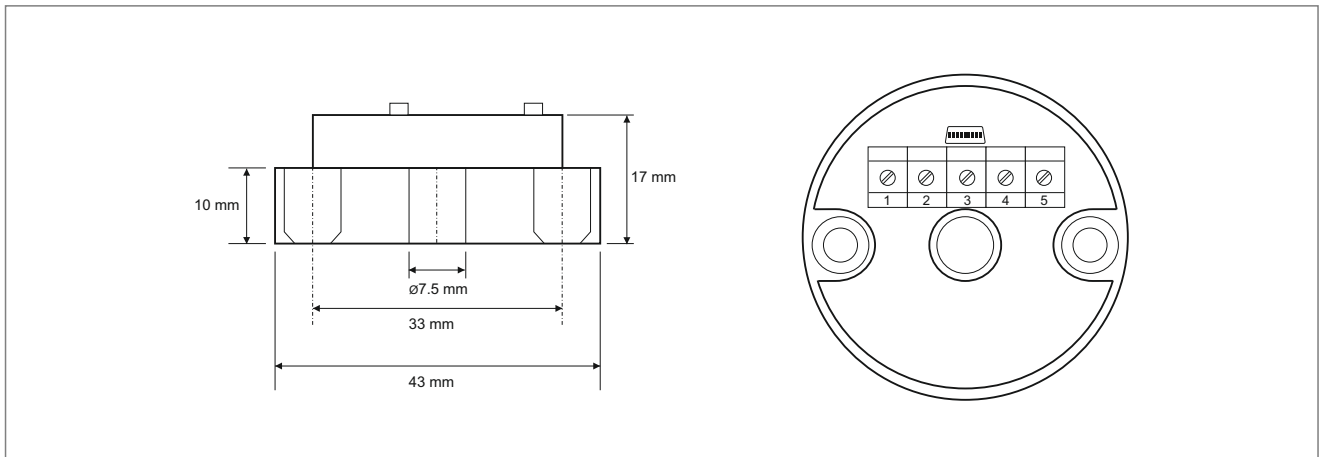
SENSOR / INPUT	RANGE LIMITS		MINIMUM SPAN (°C)	ACCURACY AT 25 °C (°C / EU)	TEMPERATURE COEFFICIENT OF ACCURACY
	LOW SCALE	HIGH SCALE			
Pt100 *	-200 °C	850 °C	10 °C	± 0.2 °C or 0.08% of span	0.003 % of span per °C
Pt1000 *	-200 °C	250 °C	10 °C	± 0.3 °C or 0.12% of span	0.036 % of span per °C

* Accuracy specified is for 2 and 3-wire RTD input. For 2-wire, lead resistance is taken as '0' ohms.

ELECTRICAL CONNECTIONS



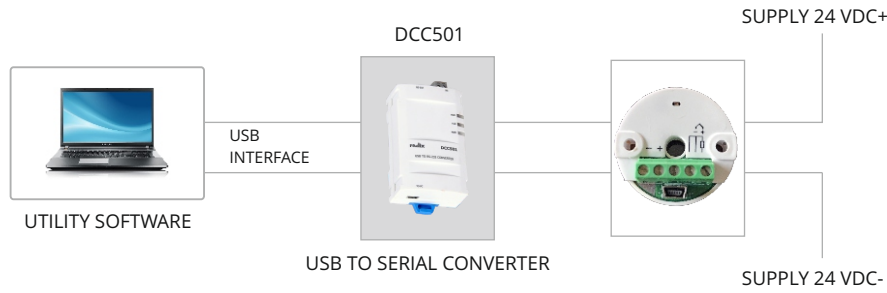
DIMENSIONS mm



2-WIRE TEMPERATURE TRANSMITTER

RTD, NON-ISOLATED, PC PROGRAMMABLE

PROGRAMMING OF INSTRUMENT VIA USB CONFIGURATOR



ORDERING INFORMATION

Example	2682	0	400 °C	0	
Product code	2682				
Input Type		0			Pt100
		1			Pt1000
Range			Range		User specified range
Test & Calibration report				0	No#
				1	Yes*

Certificate Of Conformance is included
* Chargeable

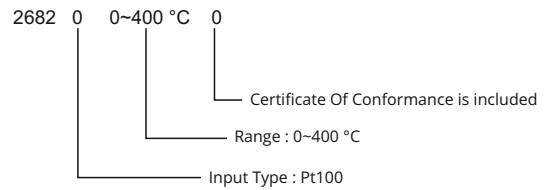
Default Parameters **

Input type : Pt100, 3-wire
Range : 0~150 °C
Sensor break : Upscale, 22mA

** If customer has not specified different values.

If user wishes to program the input and range, user must purchase separately the USB to serial converter DCC501.

EXAMPLE



PC Configurator

Parameter	Model	Order Code
USB-to-Serial Converter ***	DCC501	2555 0

*** To be purchased separately.

ENQUIRIES

Instruments: sales@radix.co.in
Sensors: sensors@radix.co.in
Gauges: gauges@radix.co.in
Automation: automation@radix.co.in
Level: level@radix.co.in

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