

RTD TO CURRENT CONVERTER

The OS Ex RTD CC-1 is a PTB approved interface unit, to accept an RTD input signal and offers a proportional galvanically isolated 4-20mA current signal.

Customer's field requirements on actual RTD value to be specified while ordering (selection table on the type of RTD given below).

FEATURES :

PTB certified (PTB 02 ATEX 2010)

Manufactured according to European standard EN 50014 and EN 50020. Input signal/output signal and the power supply are galvanically isolated from each other - **1500V, 50Hz**.

OPERATION :

The RTD is connected to the input and the compensation wire of the RTD, if available (in a 3-wire RTD) is connected to the terminal 1 of the unit. The output analog signal is available at output terminals as current signal.

APPLICATIONS :

To enable a remote temperature measurement as a RTD to 0/4-20mA current converter.

Selection code of RTD's

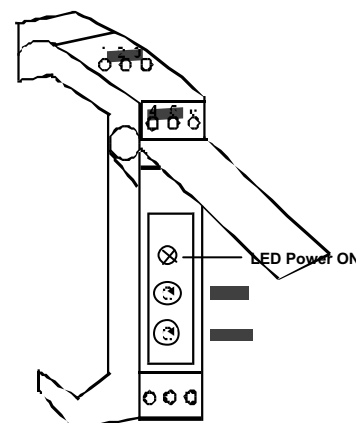
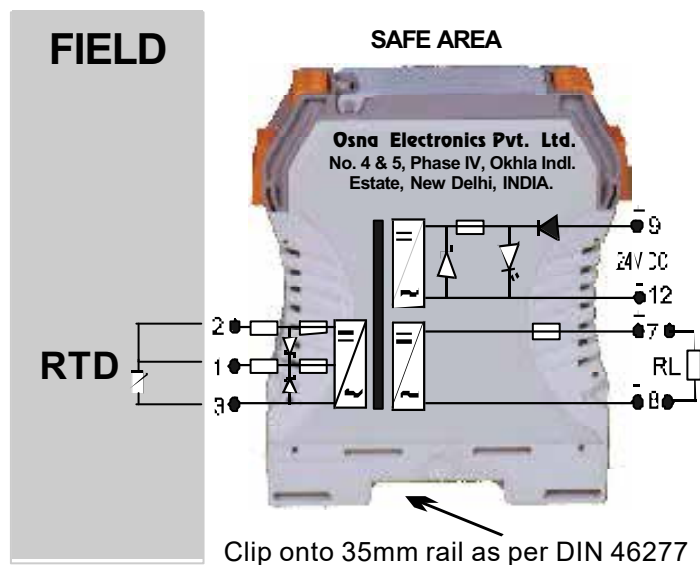
RTD Type

PT 100, - 150 to 0
PT 100, - 50 to + 50
PT 100, - 50 to + 100
PT 100, 0 to 100
PT 100, 0 to 200
PT 100, 0 to 250
PT 100, 0 to 300
PT 100, 0 to 400
PT 100, 0 to 500
PT 100, 100 to 200
PT 100, to 300
PT 100, to 400

Order Code

R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12

- * 3 point Galvanic Isolation
- * Input RTD
- * Output 0/4...20mA
- * 22.5mm Width

OS Ex RTD-CC-1**TECHNICAL DETAILS**

ART. NO. : [ODA001]

Power Supply Section Terminals 9(+), 12(-)

Supply Voltage (nominal) 24V DC $\pm 15\%$
Power Consumption 69mW (PT 100)

Field Area Section

Input Through RTD

Fail Safe maximum Voltage U_m

Not Nominal Supply 250V r.m.s.

Control Area

Output 0/4-20 mA.
Max. Load (R_L) 1000 ohm

Certificate of Conformity **PTB 02 ATEX 2010**

Parameters

Voltage u_o DC 8,6V
Current I_o 26,5mA

Intrinsically Safety Parameters

Explosion Group IIC IIB
Maximum External Capacitance 1,2?F 4,5?F
Maximum External Inductance 2mH 10mH

Transfer Characteristics

Calibrated accuracy at 20°C <20uA
Replaceable fuse 50mA & 125mA
Response Time approx.250mS (0-98% step)

Max. Ambient Temperature Max. 60°C
Span Adjustment through Poti I Approx. 20% of span
Zero Offset Adjustment through Poti II Approx. 5% of span

Weight **ca.150g**

