



RTD TO CURRENT CONVERTER

The OS Ex-RTD CC-1(LP) is a loop powered interface unit, to accept an RTD input signal and offers a proportional galvanically isolated 0/4-20mA 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 :

- * Manufactured according to European Standard EN 60079-0:12 and EN 60079-11:12.
- * Intrinsically Safe galvanically isolated from both main input and output control circuitry - **1500V, 50Hz.**
- * 24VDC Supply (Loop Powered)
- * 2 or 3 wire PT-100 RTD Input.
- * Output 4-20mA
- * Selection range through Software.
- * Lead Breakage detection

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 from hazardous area to safe area.

TECHNICAL DETAILS

ART. NO. : [ODA 014 W]

Power Supply Section

Supply Voltage (nominal)	12V to 30 VDC
	at Terminals 9(+), 12(-)

Power Consumption	< 0.45W
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Field Area Section

Input	Through RTD at Terminal 1, 2 & 3.
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Measuring current	200uA
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Fail Safe maximum Voltage U.

Not Nominal Supply	250V r.m.s.
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Control Area

Output	0/4-20 mA.
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Max. Load (R)	$R_L = \frac{V_s - 12}{20mA}$
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Fault signal	Upscaling $\geq 22m$
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Parameters

Voltage u_i	DC 8.6V
Current I_i	26.5mA

Intrinsically Safety Parameters

Explosion Group	IIC	IIB
Maximum External Capacitance	1.2mF	4.5mF
Maximum External Inductance	2mH	10mH

Transfer Characteristics

Calibrated accuracy at 20°C	<20uA
Span Adjustment through Poti I	Approx. 20% of span
Zero Offset Adjustment through Poti II	Approx. 5% of span

Max. Ambient Temperature	55°C
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Span Adjustment through Poti I	Approx. 20% of span
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Weight	ca.150g
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Dimensions	105 x 92.4 x 22.5mm
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FEATURE:

- * Input RTD
- * Output 0/4-20mA
- * 2 point Galvanic Isolation 1500 V
- * 22.5mm Width
- * Clip onto 35mm rail as per DIN 46277

APPROVALS:

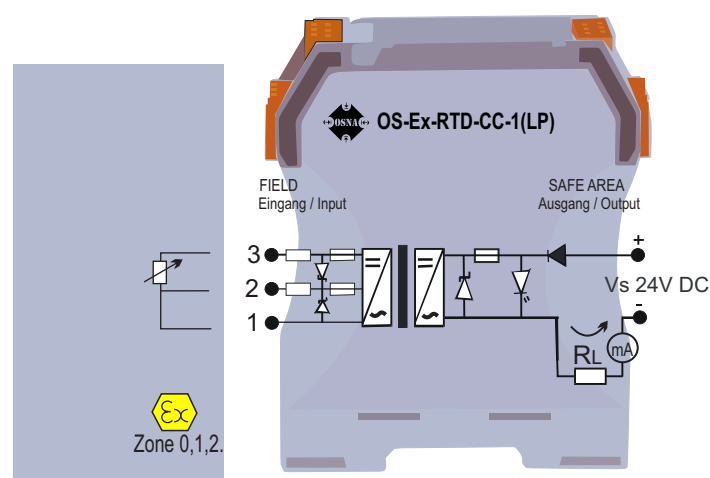
Confirming to EN 60079-0:2012 and EN 60079-11:2012.
ZONE & GAS GROUP: ZONE1 & 2 Gas Group:IIC

BUREAU VERITAS Certificate No. **EPS 16 ATEX 1 019.**

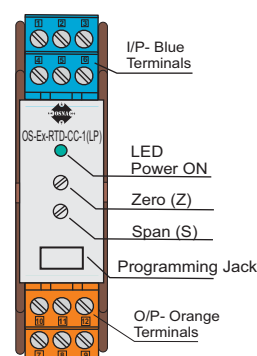
CIMFR Approval No. **CIMFR/TC/P/2294**

PESO Approval No. **A/P/HQ/DL/104/5576(P410684)**

CONNECTION



SETTING & ASSEMBLY



DIMENSIONS

