



THERMOCOUPLE TO CURRENT CONVERTER

The OS-Ex TC-CC is a BAREAU VERITAS (ATEX) approved interface unit, to accept an input mV signal and offers a proportional galvanically isolated 4-20mA current signal.

Customer's field requirements on actual thermocouple type to be specified while ordering.

FEATURES :

Manufactured according to European standard EN 60079-0:12 and EN 60079-11:12. Input signal/output signal and the power supply are galvanically isolated from each other -**1500V, 50Hz**.

OPERATION :

A 24V DC power supply (located in the non hazardous area) is connected to terminal 9(+) & 12(-). of the current converter OS-Ex-TC-CC shall power the mV/ Thermocouple connected to terminals 2(-) & 3(+) or 1(-) & 3(+).

Precision & low loss toroidal transformer are used between hazardous & non-hazardous area circuit ensuring a minimum loss in energy. Supply is galvanically isolated between hazardous and non-hazardous area circuit. As the system is truly floating there is no need to connect any intrinsic safe earth. Both the field mounted device (Voltage source) and also the controller in the non-hazardous area could be separately earthed if required without any adverse results on the accuracy of measurement.

Insert Jumper for down scaling and remove the Jumper for up scaling.

APPLICATIONS :

To enable a remote temperature measurement as a thermocouple to 4-20mA current converter.

TECHNICAL DETAILS

ART. NO. : [ODA 002 W]

Power Supply Section	Terminals 9(+), 12(-)
Supply Voltage (nominal)	24V DC $\pm 10\%$
Ripple	$\leq 10\%$
Hazardous Area Section	
Input	Thermocouple Terminals
	1(-) & 3(+),
	(T1, T2, T3, J1, J2, J3, J4
	J5, J6, K1, K2, K3, K4,
	K5, K6, K7, K8)
	Terminals 2(-) & 3(+)
	0-50mV.
Fail Safe maximum Voltage U_m	
Not Nominal Supply	250Vr.m.s.
Control Area	
Output	0/4-20mA Terminals 7(+)&8(-)
Load resistance	1000 Ohm
Parameters	
Voltage u_o	DC 8.6V
Current I_o	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	$\pm 20mA$ at 20mA
Temperature Drift*	approx. $\pm 2\mu A / ^\circ C$
Weight	ca. 150g
Max. Ambient Temperature	-20°C to 55°C

FEATURE:

- * DC 24 V operated.
- * Input Thermocouple
- * Output 4-20mA
- * 3 port Galvanic Isolation
- * 22.5mm Width
- * Clip onto 35mm rail as per DIN 46277

APPROVALS:

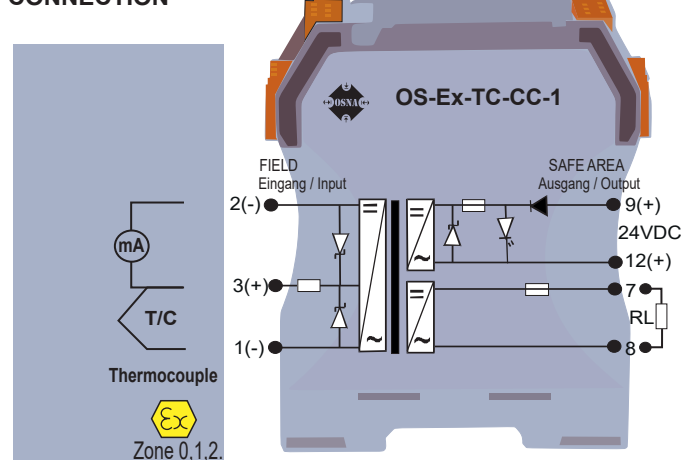
Confirming to EN 60079-0:2012 and EN 60079-11:2012.
ZONE & GAS GROUP: ZONE1 & 2 Gas Group:IIC

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

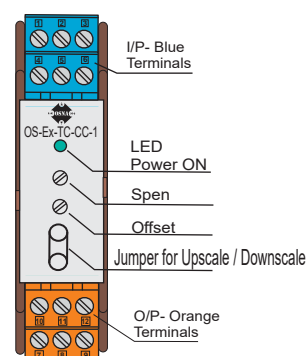
CIMFR Approval No. **CIMFR/TC/P/2294**

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

CONNECTION



SETTING & ASSEMBLY



DIMENSIONS

