



CURRENT TO CURRENT CONVERTER

OS-Ex-CR-1ST(C-CC) is a BV (ATEX) transformer isolated unit is used to convert a 0-20mA current signal from a potentially explosive atmosphere (hazardous area) to a current output (4-20mA) in the non hazardous area.

FEATURES :

- * Manufactured according to European Standard EN 60079-0:12 and EN 60079-11:12.
- * Intrinsically safe control circuit is galvanically isolated from main, input and output circuit **-1500V, 50Hz.**

OPERATION

A 24V DC power supply (located in the non hazardous area) is connected to terminal 9(+) & 12(-). The current source (0-20mA) at terminal 3(+) & 1(-). The input current is converted to current signal with same polarity across terminals 7(+) & 8(-) into the non hazardous area as a 4-20mA current signal.

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 (Current 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.

APPLICATION :

To isolate and convert current signal from hazardous area to proportional direct analogue current signal in non-hazardous area.

TECHNICAL DETAILS

ART. NO. : [ODD 017 W]

Power Supply Section	Terminals 9(+), 12(-)	
Supply Voltage (nominal)	24V DC \pm 10%	
Ripple	\leq 10%	
Power Consumption	1.5W	
Field Area		
Input	0-20mA	
	Terminals 1(-) & 3(+).	
	Please specify the range	
	(While ordering)	
Parameters		
Voltage u_i	29.4V	
Current I_i	90mA (2-Wire) resp.	
Intrinsically Safety Parameters		
Explosion Group	II (1)G [Ex ia Ga] IIB/IIC IIC	
Maximum External Capacitance	70nF	400nF
Maximum External inductance	0.2mH	0.5mH
Fail Safe maximum Voltate U.		
Power Supply	250V r.m.s	
Safe Area Section		
Output (Non-I.S)	4-20mA ,Terminals 7(+), 8(-).	
Max. Load	1 K Ω	
Transfer Characteristics		
Calibrated accuracy at 20°C	0.1% of full scale value	
Drift*	approx. \pm 2 μ A/°C	
Terminals	Self opening max. conductor size 22.5mm	
Max. Ambient Temperature	-20° to 60°C	
Weight	ca. 150g	

FEATURE:

- * DC 24 V operated.
- * Input 0-20mA
- * Output 4-20mA
- * 3 port 1500V, 50Hz Galvanic isolation
- * 22.5mm Width
- * Mounting Clip onto 35mm rail as per DIN 46277

APPROVALS:

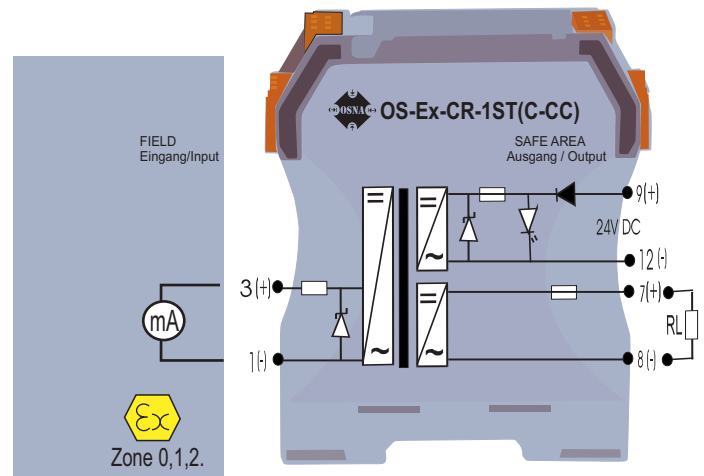
Confirming to EN 60079-0:2012 and EN 60079-11:2012. ZONE & GAS GROUP: ZONE1 & 2 Gas Group:IIC

BUREAU VERITAS Certificate No. EPS 16ATEX 1 019.

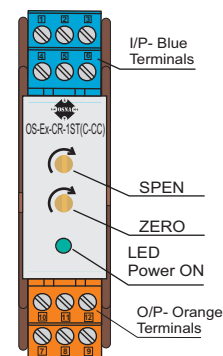
CIMFR Approval No.CIMFR/TC/P/2294

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

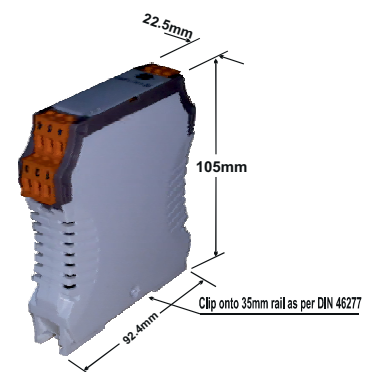
CONNECTION



ASSEMBLY



DIMENSIONS



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