

CLP-CODE MONITORING SYSTEM

Zones 1, 2, 21, 22

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ATEX EARTHING SYSTEMS

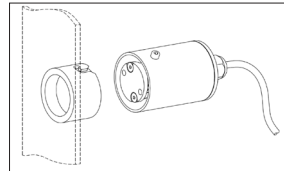
ZONES 1, 2 (gas) & 21, 22 (dust)



The CLP-CODE device is part of the ECS for earthing connections of production machinery (dispensers, grinding mills, etc.).

Thanks to the mechanical coding, which makes it unique in this field of application, this equipment is able to detect if the connection to earth is obtained with a resistance to earth less or equal to 10 Ω .

The device is equipped with 2 LEDs (green and red) installed directly on board.



ITEM REFERENCES

Designation:	Installed in:	Cable length:	Item No.:
CLP-CODE - ECS-RF-DIN - 5	Safe area	5 m	6D0903
CLP-CODE - ECS-RF-DIN - 10	Safe area	10 m	6D0904
CLP-CODE - ECS-RF - 5	Hazardous area	5 m	6D0905
CLP-CODE - ECS-RF - 10	Hazardous area	10 m	6D0906

The ECS-RF-DIN device provides n.1 channel signal conditioning for earth connection of process equipment (IBC, drums, roadtankers, etc.). The system detects in real-time if the connection to earth is obtained with a resistance less or equal to 10 Ω .

The device is equipped with SPST NO contact with a safety integrity level up to SIL2, according to EN 50495, and high-efficiency redundant green and red LEDs for earth connection monitoring.

- N.1 x SPDT contact for clamp state remote monitoring.
- N.1 x N.O. contact for safety applications up to SIL2.
- N.2 x intrinsically safe outputs for the clamp's remote LEDs.

TECHNICAL SPECIFICATIONS ECS-RF-DIN (SAFE AREA)

Marking:	
Certificate:	EU-Type Examination Certificate
Operating temperature:	-20°C to +70°C
Clamp input Ex i:	$U_0=7.2V$, $I_0=345mA$, $P_0=621mW$, $C_0(IIC)=13.5\mu F$, $L_0(IIC)=149\mu H$, $L_0/R_0=860 \mu H/\Omega$
Output LED Ex i:	$U_0=7.2V$, $I_0=23mA$, $P_0=42mW$, $C_0(IIC)=13.5\mu F$, $L_0(IIC)=34\mu H$, $L_0/R_0=860 \mu H/\Omega$
Power supply:	230 VAC \pm 5%
Standard cable:	Extension cable CAB-ECS6C1.0
R threshold:	10 Ω

Dimensions:	
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CLP-CODE MONITORING SYSTEM




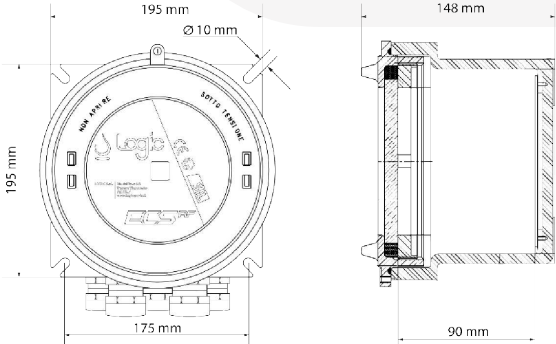
Zones 1, 2, 21, 22

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ECS-R series electronic equipment provides earth connection of process equipment (road tankers, drums, IBCs, etc..) with real-time ground connection monitoring. The system monitors that connection to earth is obtained with a resistance lower than 10Ω, according to the ATEX Directive 2014/34/EU.

The device can be equipped with two Ex i outputs for remote LEDs installed directly on the clamp (consensus green LED and non consensus red LED).

TECHNICAL SPECIFICATIONS ECS-RF (HAZARDOUS AREA)

Marking:	 II 2(1)G Ex d[ia Ga] IIC T6 Gb  II 2(1)D Ex tb[ia Da] IIIC T85°C Db	
Certificate:	EU-Type Examination Certificate	
Operating temperature:	-20°C to +55°C	
Clamp input Ex i:	U ₀ =7.2V, I ₀ =345mA, P ₀ =621mW, C ₀ (IIC)=13.5μF, L ₀ (IIC)=149μH, L ₀ /R ₀ =860 μH/Ω	
Output LED Ex i:	U ₀ =7.2V, I ₀ =23mA, P ₀ =42mW, C ₀ (IIC)=13.5μF, L ₀ (IIC)=34μH, L ₀ /R ₀ =860 μH/Ω	
Power supply:	230 VAC ± 5%	
Standard cable:	6-wire spiral cable, according to IEC 60332-1-2	
R threshold:	10 Ω	
Potential free contact:	COM/NC/NO 	
Cable entries:	5xM20x1,5 1 - Grounding clamp 2 - Grounding cable	3 - Redundancy ground wire 4 - Power cable 5 - Potential free contact cable (if not used, install the plug provided)
Dimensions:		

The CLP-CODE meets the requirements for application in ATEX Zone 1/21, connected to the monitoring systems of the ECS range.

TECHNICAL SPECIFICATIONS CLP-CODE CLAMP

Area of use:	Up to ATEX Zone 1/21
Material:	Stainless steel AISI304
Operating temperature:	-20°C to +50°C
Contact:	Double steel alloy tip with carbonitriding treatment
Standard cable:	Spiral cable, 5/10m long, wire section 0,5 mm ² , Ø8 mm
R threshold:	10 Ω
Dimensions:	