

# EARTHING CLAMP

For drums and IBCs in ATEX Zone 1/21

## ECS-R/ECS-RF

The Logic ECS-R/ECS-RF system can be effectively used to earth drums, IBCs and metal containers in ATEX Zone 1/21.

The system makes it possible to dissipate any electrostatic charges generated when handling flammable liquids, by continuously verifying via the **SIL2** electronics (ECS-RF version) that the resistance to earth is always **<10Ω**.

With their many variants and accessories, ECS-R / ECS-RF series devices can be adapted to any application.



Connection clamps:

**IS1L** in die-cast aluminium for drums and large IBCs

**CLP-MINI** in stainless steel for small drums and small metal containers



### TECHNICAL SPECIFICATIONS

<b>Control unit installation area</b>	ECS-RF-DIN: electronics in Safe Area ECS-RF: ATEX Zone 1/21
<b>Temperature range</b>	Control unit in safe area: $-20\text{ °C} \leq T_{\text{amb}} \leq +70\text{ °C}$ Control unit ATEX Zone 1/21: $-20\text{ °C} \leq T_{\text{amb}} \leq +40\text{ °C}$
<b>Standard cable</b>	5 m 6-wire coiled cable for Ex i applications
<b>Optional cables</b>	10 m 6-wire coiled cable for Ex i applications 2-wire straight cable with cross-section $0.35\text{ mm}^2$ , $\varnothing 5\text{ mm}$ , length 3 m, PVC insulation sheath
<b>Power supply</b>	AC version (ECS-RF-DIN): $230\text{ Vac}$ , $U_m=253\text{ V}_{\text{rms}}$ DC version (ECS-RF-DIN-DC): $10\div30\text{ Vdc}$ , $U_m=30\text{ Vdc} / 253\text{ Vdc}$
<b>Control unit dimensions (L x H x D)</b>	Control unit for safe area (ECS-RF-DIN): $162 \times 90 \times 65\text{ mm}$ Control unit for ATEX Zone 1/21 (ECS-RF): $195 \times 195 \times 148\text{ mm}$

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## IS1L CLAMP SPECIFICATIONS

The IS1L clamp with on-board LED is suitable for heavy-duty industrial applications due to its innate characteristics of robustness and resistance to mechanical and chemical agents.

Comes with a 5 m coiled cable by default.



<b>Clamp composition</b>	Die-cast aluminium with plastic handle Hardened steel tips
<b>Status display</b>	Via green and red LED on the clamp
<b>Connection area</b>	ATEX Zone 0/20
<b>Operating temperature</b>	$-20\text{ °C} \leq T_{\text{amb}} \leq +55\text{ °C}$
<b>Dimensions (L x H x D)</b>	250 x 110 x 95 mm

## CLP-MINI CLAMP SPECIFICATIONS

The CLP-MINI stainless steel clamp is designed for heavy-duty industrial applications that require a certain compactness, robustness and resistance to mechanical and chemical agents. The high-strength tips and stainless steel structure make it virtually indestructible.

Comes with a 5 m two-wire straight cable by default.



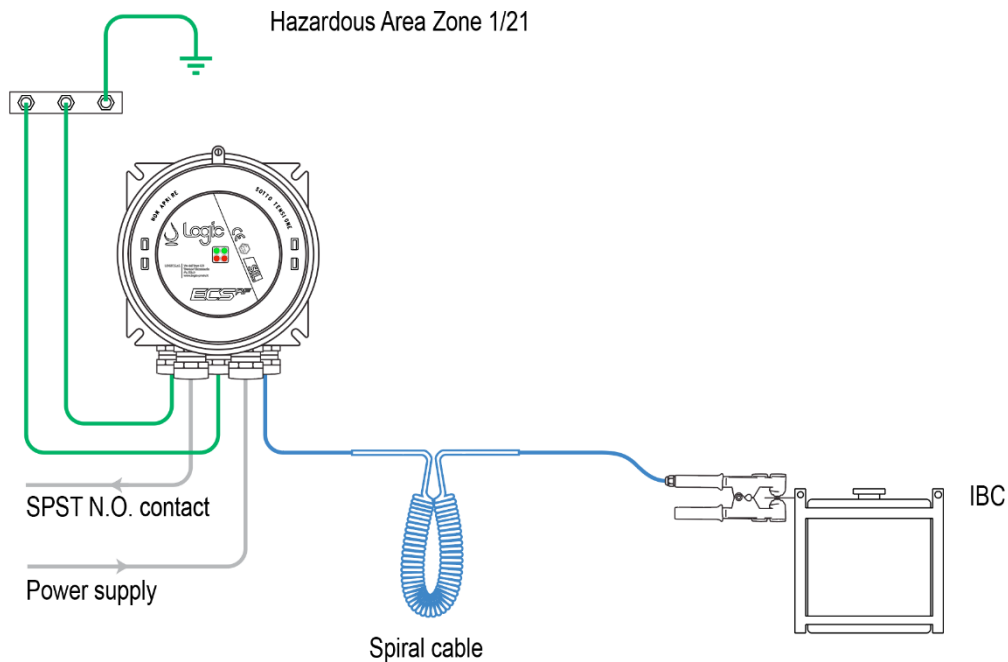
<b>Clamp composition</b>	AISI 304 stainless steel with carbonitrided tips with a very high hardness
<b>Status display</b>	Via green and red LED on the JB-LED
<b>Clamp connection area</b>	ATEX Zone 0/20
<b>Operating temperature</b>	$-20\text{ °C} \leq T_{\text{amb}} \leq +55\text{ °C}$
<b>Dimensions (L x H x D)</b>	50 x 33 x 140 mm

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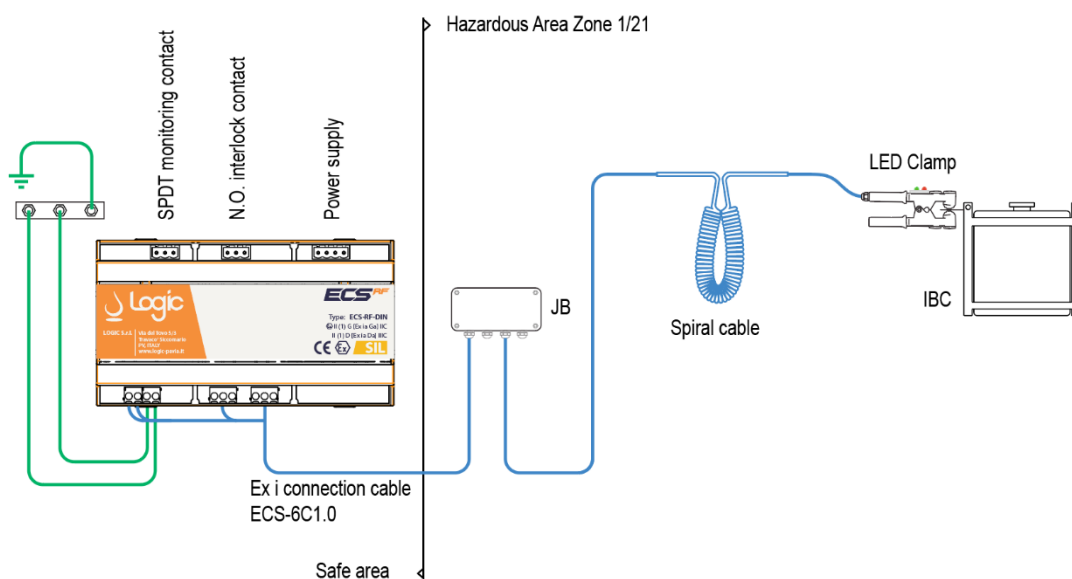
## Control unit in ATEX Zone 1/21 with coiled cable

1. Electronic control unit in ATEX hazardous area 1/21
2. Coiled connection cable from the control unit to the clamp
3. Connection clamp with IS1L type LED on board



## Control unit in Safe Area with coiled cable

1. Electronic control unit installed in an electrical panel in a safe area
2. Coiled connection cable from the control unit to the clamp
3. Connection clamp with IS1L type LED on board

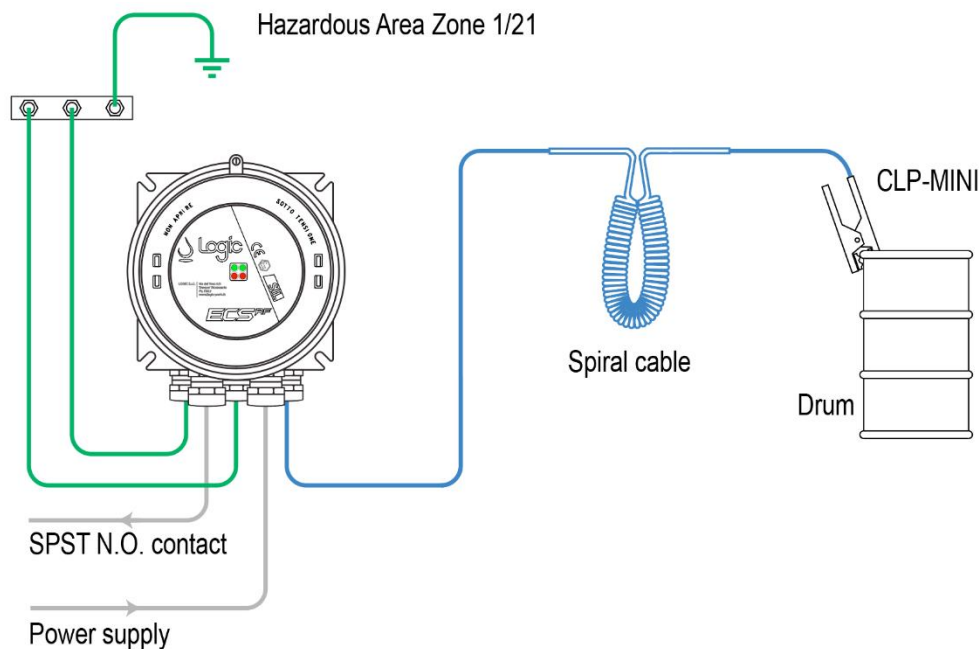


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## Earthing of small drums with CLP-MINI clamp and Control Unit in ATEX Zone 1/21

1. Electronic control unit in ATEX hazardous area 1/21
2. Coiled or straight connection cable between the control unit and the clamp
3. CLP-MINI connection clamp and signalling LED on the ECS-R / ECS-RF control unit



## Earthing of small drums with CLP-MINI clamp and Control Unit in Safe Area

1. Electronic control unit installed in an electrical panel in a safe area
2. Coiled or straight connection cable between the control unit and the clamp
3. CLP-MINI connection clamp and signalling LED on the JBOX JB-LED

