

Introduction

Earth Relay Units are used to earth static charge from flammable objects such as petroleum tankers. The ERU, ELMRU or ELMCRU are variants with different incremental features which can help users successfully earth dangerous static voltages in hazardous locations.

ERU & ELMRU work on the principle Loop Resistance to secure hazardous objects of static voltage. While ERU comes with two earthing clamps, the ELMRU comes with three clamps, one of which can secure discharge arms.

ELMCRU works on the basis of Loop Resistance plus object capacitance referenced to earth. It comes with three clamps.

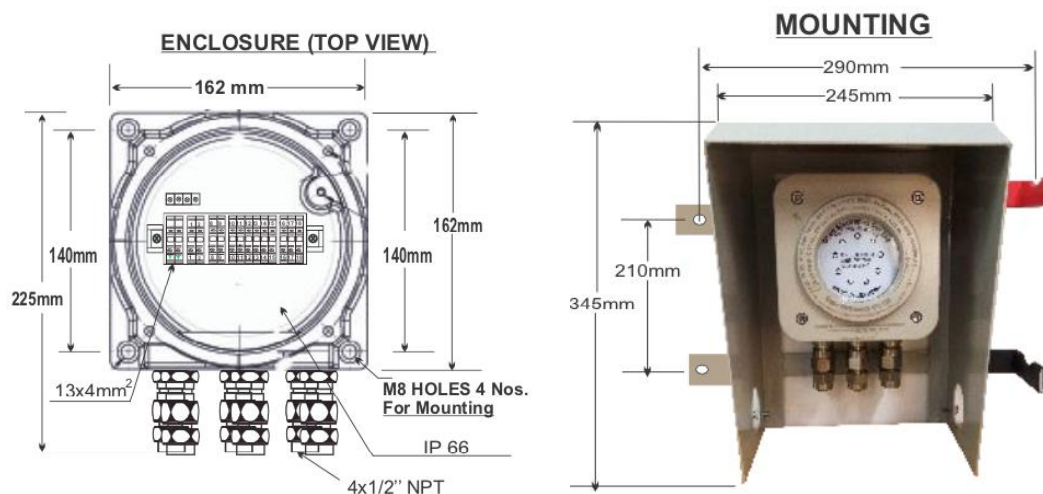
In case of ELMCRU, the actual value of Loop resistance is available through the RS 485 communication and it can be stored externally in the PC or a Data Logger. In order to allow the data to be stored longer, the scanning time to register the Loop resistance can be increased from a few seconds to an hour. The time between cleaning of files can also be pre-set and changed in the associated software.

Spare Clamp sets are available with 5 meter & 10 meter cable for retrofit units.

Features

- Earth monitor and resistance detector in the Earth Loop.
- Single & Dual Output
- A Wide range of Earthing clamps
- Intrinsically Safe (Ex i) & Explosion proof (Ex d) enclosure
- Verification of Truck
- Digital Logic RS 485 (in ELMCRU only)
- Relay Output for alarms & control

Drawing

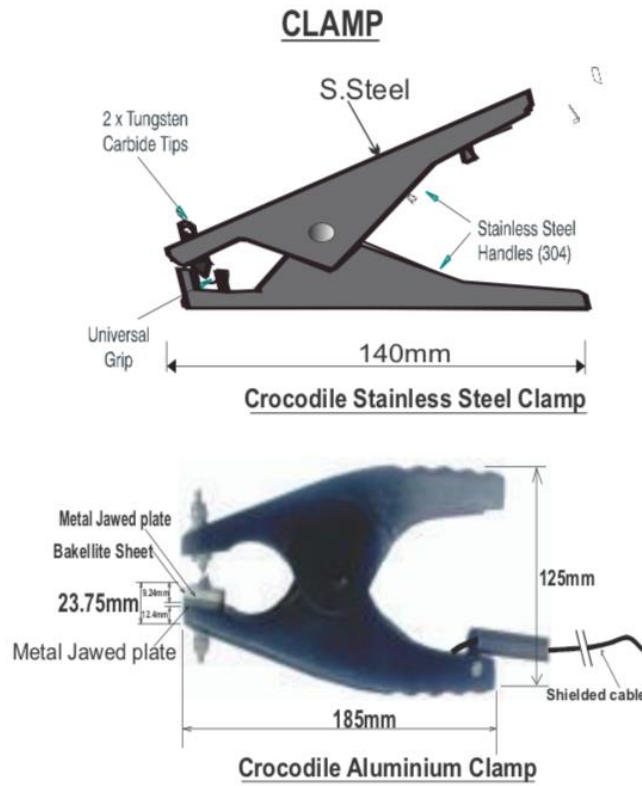




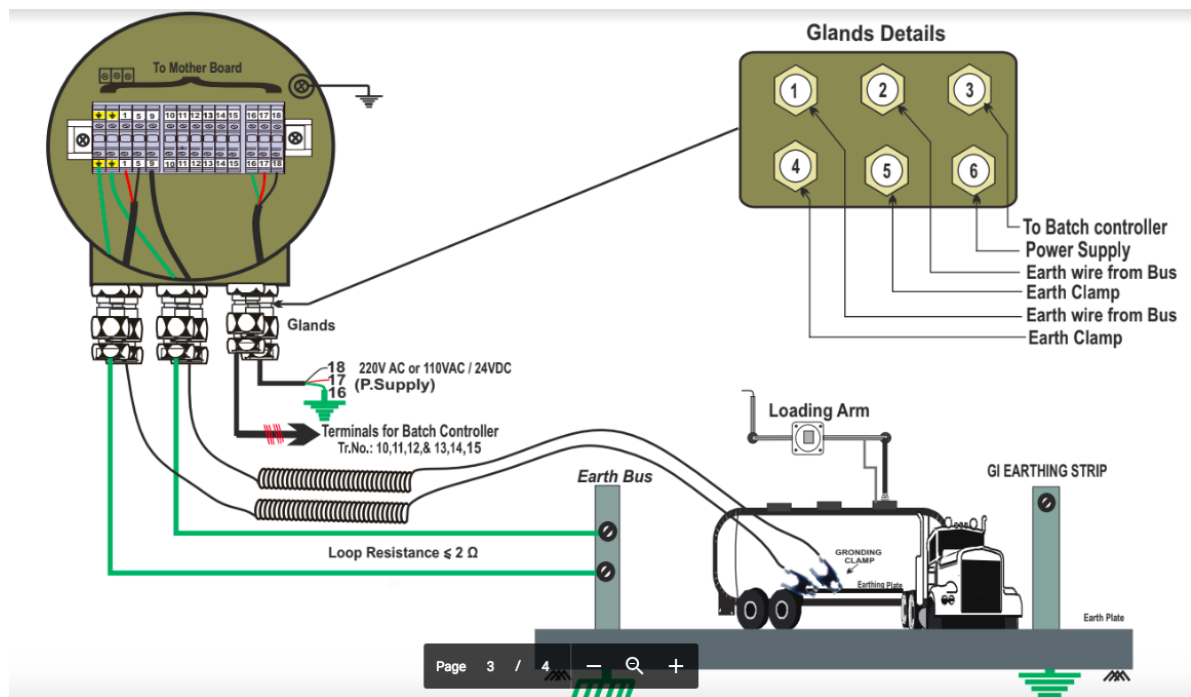
Key Specifications

Specifications	Basic ERU	ELMRU	Smart ERU
Model	ERU-011A or ERU-12A (110V ac)		ERU-003A (110V ac)
	ERU-011B or ERU-12B (220V ac)		ERU-003B (220V ac)
			ERU-013D (24V dc)
Open Circuit Voltage Voc	8V dc	8V dc	2 to 9V dc
Short Circuit Current Isc	8 mA	8 mA	2 to 9 mA
Earth Capacitance of object	NA	NA	1200 pF to 7200 pF
Earth Look Resistance	2 Ω maximum	2 Ω maximum	0 to 10 Ω (Software selectable)
Maximum External Capacitance	0.8 μF	0.8 μF	800 nF
Maximum External Inductance	74 mH	74 mH	74 mH
Values when connecting both circuits			
Vout	12.87 V	12.87 V	12.87 V
Iout	15.86 mA	15.86 mA	15.86 mA
Pout	64 mW	64 mW	64 mW
RS 485 Port	Not provided	Not provided	Provided
Software Interface for Programming	Not provided	Not provided	Provided
Function Indications	RED- Earth NOT OK	RED- Earth NOT OK	RED- Earth NOT OK
	Green- Earth OK	Green- Earth OK	AMBER- Tanker OK
			GREEN- Earth OK
Relay Energizing Time	20 ms max	20 ms max	50 ms max
Relay De-Energizing Time	20 ms max	20 ms max	50 ms max
Switching Frequency	10 Hz Max	10 Hz Max	10 Hz Max
Cable Entries	1/2" NPT Double Compression Glands	1/2" NPT Double Compression Glands	1/2" NPT Double Compression Glands
Weight	10 kg without Canopy	10 kg without Canopy	10 kg without Canopy
	20 kg with Canopy	20 kg with Canopy	20 kg with Canopy
Clamps	Two clamps with 5 m cable	Three clamps with 5 m cable	Three clamps with 5 m cable
Canopy for outdoor mounting	Provided as option	Provided as option	Provided as option

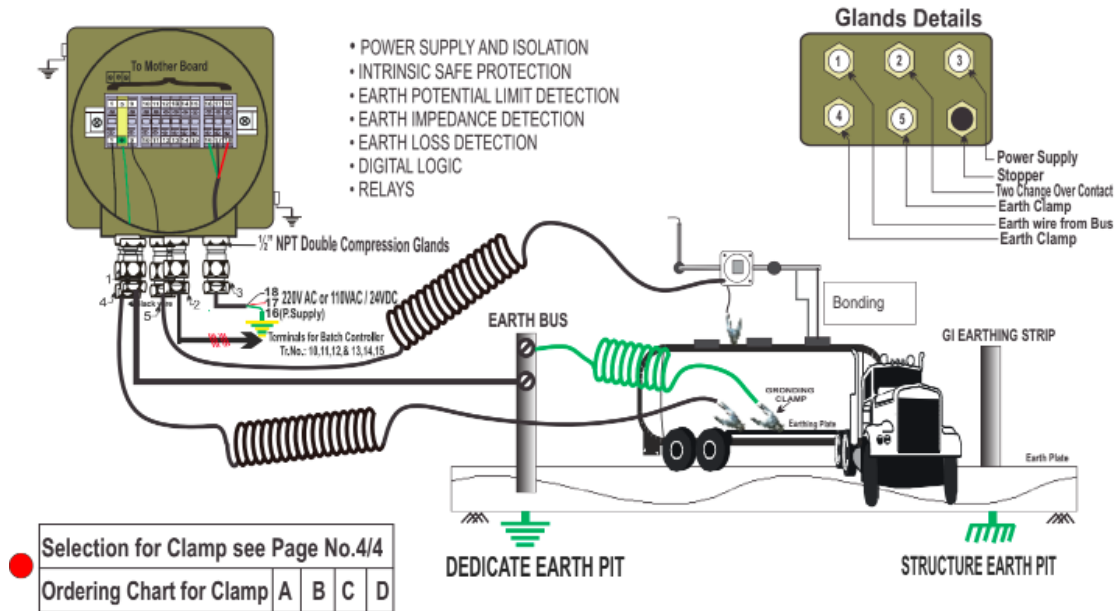
Clamp Drawings



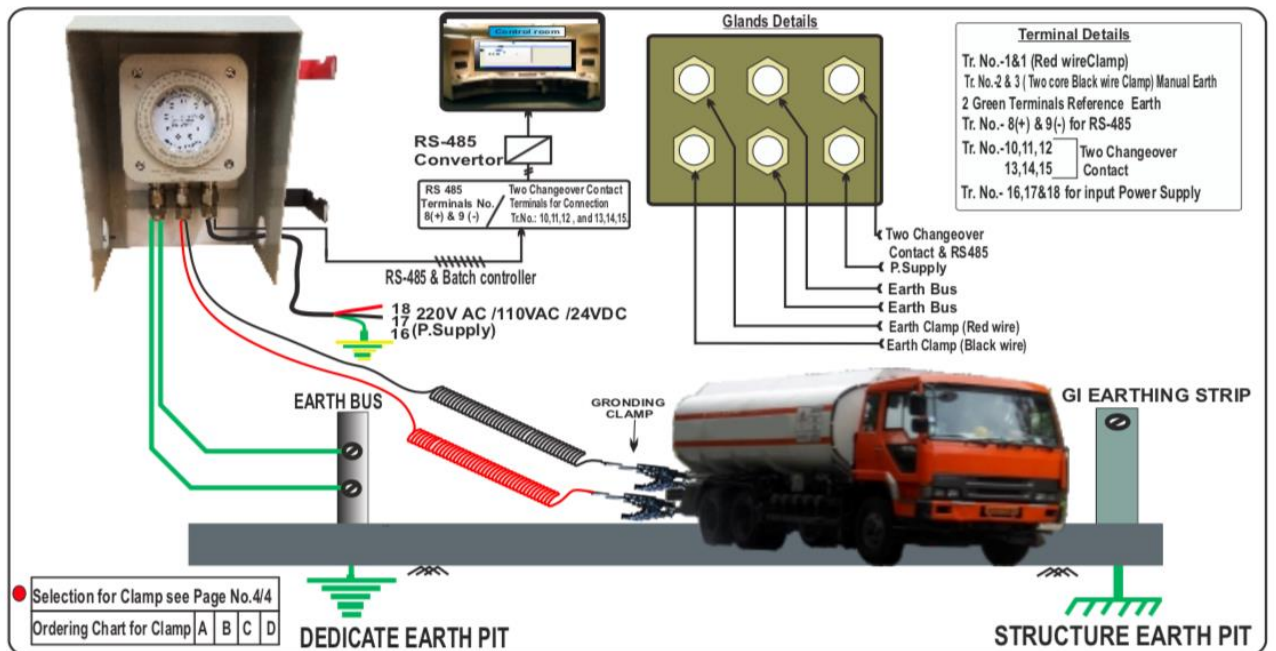
Connection Configuration-ERU



Connection Configuration-ELMRU



Connection Configuration-ELMCRU





Certifications & Approvals

Approval Standards

PESO-CCoE Certificates

IS/IEC 60079-0: 2007
IS/IEC 60079-1: 2007
IS/IEC 60079-11: 2006

ATEX Certificate

EN 60079-0: 2012
EN 60079-1: 2014

Certificate Numbers

PESO-CCoE

P410684
P413962

ATEX Certificate

EPS 15 ATEX 1131X



Contact for Ordering

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