



HUMAN BODY STATIC DISCHARGE



Osna Electronics Pvt. Ltd.

Providing Solutions Since 1985

An ISO 9001: 2015 Certified Company

www.osnaelectronics.net

Sensors • Process Automation • Factory Automation • Terminal Automation



Introduction to Human body Static discharge unit

Earth Relay for safety device for screening personnel entering areas where electrostatic Charge is not allowed

This Earth Relay Unit control and display unit can be mount on a wall at about shoulder height. This unit is mounted on stainless plate having two handles one is "Hand 1" another is "Hand 2" where human body is to be discharges By holding handle "Hand1" and "Hand2" on unit the monitoring circuit is activated and the Human static start discharge in which resistance calculated is measured between the handle and the Reference handle & once it complete the Green LED become ON & Display shows Discharged - **PASS**.

The OSNA HUMAN BODY STATIC DISCHARGE UNIT gives complete assurance of safety in all area in which any static charge is not allowed by HUMAN BODY.

The core Unit is installed in a ATEX, IECEx , CIMFR & PESO approved enclosure for ZONE 1 & Zone 2 IIA IIB & IIC. the Core unit is ATEX , CIMFR & PESO approved manufactured as per EN 6007901 EN 60079-1

Human body Dissipater

FEATURES

HUMAN BODY DISCHARGE in ref of EARTH
Single & dual output approved for 🖾 II 2G Ex d II C T6 Gb.

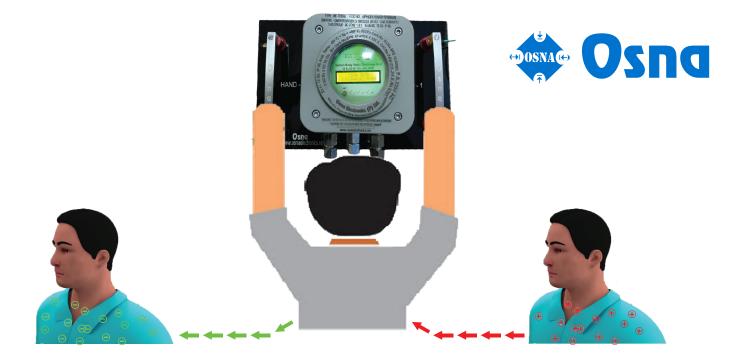
DISCHARGED-PASS & CHARGED - FAIL result on a LCD with RED & green indiction
Intrinsically & Ex proof



Charged



Discharged

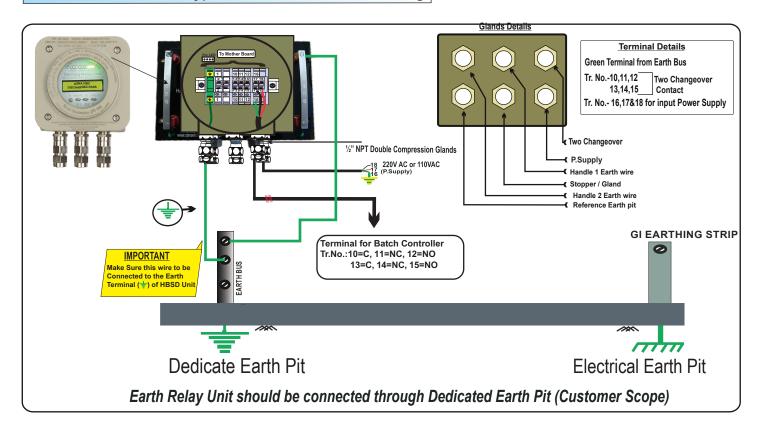


Technical Information of Trip amplifier OS-Ex-2G / WE77/Ex-ERU (HBSD)

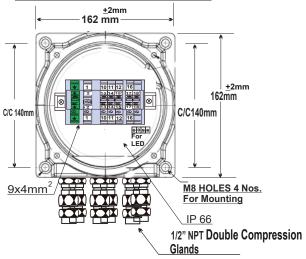
Article No.	ERU-020B for 220VAC , ERU-020A for 110VAC
Power Supply	220VAC OR 110 VAC -10% +15%, 45-65Hz.
Current Consumption	approx. 3,5VA
Ripple	<u><</u> 10%
Hazardous Area Section	
Inputs (Intrinsically Safe)	
Nominal data	as per DIN 19234 Equipment
Open circuit voltage	approx. < 8 VDC
short circuit current	approx. < 8 mA
Human Resistance	1K to 1M Ω
Parameters as per BUREAU VERITAS	BV Certificate No. EPS 16 ATEX 1 019
Certificate as per	EN60079-0 : 2012 , EN EN60079-1 : 2014
	Values per circuit Values when connecting the both circuit
Output Voltage (max.)	12.87 V
Output Current (max.)	15.86mA
Output power (max.)	64 mW
Permissible circuit values Ignition protection class/	IIC (1)G [Ex ia Ga] IIB/IIC , IIC (1)G [Ex ib Ga] IIB/IIC
Explosion group	II C
Max. External Capacitance	800 nF
Max. External Inductance	74µH
Safe Area Section	
Contact rating of relay	250 V / 5 A / Cos f ≥ 0.7
Circuit Response Time	
Relay Energising / De-energising	≥ 50 ms / ≥ 50 ms
Switching Frequency	Max. 10 Hz.
Weight	6kg
Ambient Temperature	Max. 55°C
Glands:	
Type of Thread	½" NPT Double Compression
	IIA, IIB, IIC, Ex-d



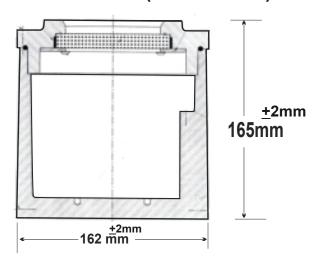
Block Schematic and Typical Connections /G.A.Drawing







ENCLOSURE (SIDE VIEW)





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