



working for a safer tomorrow

# Karandikar Laboratories



F 08 CE Rev. 02

## 1) Ex EQUIPMENT TYPE EXAMINATION REPORT

2) TE Report Number: **KLPL/Ex/18-101X Issue no.01** Dated: **08.01.2024**

3) **Ex Equipment:** **EARTH CLAMP WITH VISUAL INDICATION**  
**Model: ECVI-0912**

4) **Manufacturer:** **M/s ESD Control Systems**  
Plot No. 41, Venkateswara Enclave,  
Suchitra 'x' Roads, Jeedimetla,  
Hyderabad-500055, Telangana.

5) This equipment and any acceptable variation thereto are specified in the schedule to this report and the documents therein referred to

6) Karandikar Laboratories Pvt. Ltd. reports that this equipment has been found to comply with requirements of the following standards relating to the design and construction of equipment for explosive gas/dust atmospheres as applicable.

7) This TE Report was issued as verification that a sample, was assessed, tested and found to comply with the IS / IEC standards listed below.

**IS/IEC 60079-0: 2017 & IS/IEC 60079-11: 2011**

8) The Examination and Test results are recorded in KLPL's confidential  
**Report No.: KLPL/Ex/ ESD-24/001 Dated: 08.01.2024**

9) The sign X if placed after the TE report number; it indicates that the equipment is subject to specific conditions of use specified in the schedule to this TE Report.

10) This Report does not indicate compliance with electrical safety and performance requirements other than those expressly included in the above listed standards.

11) The marking of the Equipment shall include the following:

**Ex Code:**

**Ex ib IIB T4 Gb (0 °C ≤ Ta ≤ +50 °C)**

Page 1 of 3



*A. V. Karandikar*  
**Ajit Karandikar**  
CEO

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TE Report No.: KLPL/Ex/18-101X Issue No.01

Dated: 08.01.2024

**SCHEDULE**



F # 08 CE Rev. 02

**12) Details of Type Examination Reports Issued: -**

TE Report No.	Issue No.	Report No.	Date	Reason for Issue
KLPL/Ex/18-101X	00	KLPL/Ex/ESD-18/001	21.11.2018	Original test report.
KLPL/Ex/18-101X	01	KLPL/Ex/ESD-24/001	08.01.2024	Revalidation: No design change, Evaluation as per new standard IS/IEC 60079-0: 2017 and IS/IEC 60079-11:2011

**13) Description of equipment**

Earth clamp with visual indication Model No. ECVI-0912 is a portable quick earth connector device. It is used to neutralize static charges generated during operation or movement of equipment or material flow through hoses and pipes. ECVI-0912 gives an electrical bond between equipment and earth.

The ECVI-0912 has 2 clamps with tungsten carbide pins. The two clamps connected to each other with a flexible cable of 5m length. One of the clamps is equipped with two no. primary dry batteries to energize the equipment and encapsulated electronic circuitry. The approved make of the battery is 'Eveready Red leak proof 1015 R6 Alkaline primary Battery of 1.5 V'. LED indication and electronic magnetic ON/OFF switch is provided on this clamp. This clamp is connected to the equipment body.

The other clamp is connected to verified earth connection. The LED indicator indicates RED when the circuit is live and any one or both jaw and terminal contacts are open. The LED indicates GREEN when both the contacts are closed and earth bonding is established. An enclosure for battery having an ingress protection rating of IP 54 as per IS/IEC 60529:2001. The body of the ECVI-0912 and the enclosure material of battery is stainless steel.

**14) Model Designation:**

Model No.	Product	Rating
ECVI-0912	Earth clamp with visual indication	Refer Point 17



Page 2 of 3

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### SCHEDULE



F # 08 CE Rev. 02

#### 15) Drawings & Documents

Document No.	Sheet	Issue	Date	Document Title
ESD-912-1001-01	1	01	08.11.2018	ECIV-Application and working
ESD-912-1001-02	3	01	09.11.2018	Block Diagram and Manual
ESD-912-1001-03	1	02	08.11.2018	ECIV-Apparatus Labels details
ESD-912-1001-04	6	02	08.11.2018	Entity Parameters & Behavior under Fault condition
ESD-912-1001-05	3	01	08.11.2018	Battery Specifications and Test
ESD-912-1001-07	2	02	08.11.2018	Schematic circuit diagram & BOM
ESD-912-1001-DOC8	1	01	09.11.2018	Wire & cable chart
ESD-912-1001-09	2	02	15.11.2018	Statement from PCB supplier & Gerber Films
ESD-912-1001-10	10	01	22.11.2018	Conformal coating
ESD-912-000-00	2	02	10.11.2018	Earth Clamp Assembly

Drawings listed above are finally accepted as accurately representing the product for which this evaluation report has been prepared. These drawings provide necessary information as required by the above referred standards.

#### 16) Temperature Class:

Considering the ambient temperature range of 0°C to +50 °C, the requested temperature class of "T4" is acceptable.

#### 17) Electrical Rating:

Input supply:

Two primary batteries in series: 3 V

#### 18) Specific conditions of use:

- Use only Eveready Red leak proof type 1015 R6 'AA' size alkaline primary battery cells.

#### 19) Routine test: Nil

END OF DOCUMENT



Page 3 of 3

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