



# Karandikar Laboratories



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## TYPE EXAMINATION REPORT

- 1)
- 2) **Electrical Apparatus for Explosive Atmospheres**
- 3) **TE Report Number: KLPL/Ex/18/101** **Issued On: 21.11.2018**
- 4) **Electrical Apparatus:** **EARTH CLAMP WITH VISUAL INDICATION  
ECVI-0912**
- 5) **Name and Address of the Manufacturer:** **ESD CONTROL SYSTEMS**  
Plot No.41, Venkateswara Enclave, Suchitra 'x' Roads,  
Jeedimetla, Hyderabad-500055, Telangana.
- 6) This equipment and any acceptable variation thereto are specified in the schedule to this report and the documents therein referred to.
- 7) 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 electrical apparatus for explosive gas atmospheres.
- 8) This TE Report was issued as verification that a sample, representative of production, was assessed and tested and found to comply with the IS/IEC standards listed below:  
**IS/IEC 60079-0: 2011, IS/IEC 60079-11: 2006, IS/IEC 60529: 2001**
- 9) The Examination and Test results are recorded in KLPL's confidential  
**Report No: KLPL/Ex/ESD-18/001; Dated: 21.11.2018**
- 10) The sign X if placed after the report number; it indicates that the equipment is subject to special conditions of safe use specified in the schedule to this certificate.
- 11) This Report does not indicate compliance with electrical safety and performance requirements other than those expressly included in the above listed standards.
- 12) The marking of the Equipment shall include the following:  
**Ex ib IIB Gb T4 (0 °C ≤ Tamb ≤ +50 °C)**

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*Atul Marathe*

**Atul Marathe (Technical Manager)**

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### Karandikar Laboratories Pvt. Ltd.

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**TE REPORT NO: KLPL/Ex/18-101**

**Dated: 21.11.2018**

**SCHEDULE**

**13) Description of Product:**

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 is made of stainless steel. The enclosure material of battery is stainless steel.

ESD CONTROL SYSTEMS			
APPARATUS	EARTH CLAMP WITH VISUAL INDICATION		
MODEL NO.	ECVI-0912	SERIAL NO.	XXXX
CAT	Ex ib IIB Gb T4 (0 °C ≤ Tamb ≤ +50 °C)		
USE IN	HAZARDOUS AREA	STANDARD	IS/IEC 60079-11: 2006, IS/IEC 60079-0: 2011
CERTIFIED BY	KARANDIKAR LABORATORIES PVT.LTD.		
CAUTION: DO NOT OPEN IN HAZARDOUS AREA			

X's denote product serial number

- 14) **Model Designation:** EARTH CLAMP WITH VISUAL INDICATION Model No.ECVI-0912  
manufactured by ESD CONTROL SYSTEMS.
- 15) **Ingress Protection:** Enclosure: IP 54 as per IS/IEC 60529: 2001

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**SCHEDULE**

- 16) **Ambient Temperature:**  $0^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$
- 17) **Temperature class** T4
- 18) **Documents submitted along with the Test Report:**

Sr. No	Doc. Date	Doc. No.	Doc. Title	No. of Pages
1	08.11.2018	ESD-912-1001-01	ECIV-Application and working	1
2	09.11.2018	ESD-912-1001-02	Block Diagram and Manual	3
3	08.11.2018	ESD-912-1001-03	ECIV-Apparatus Labels details	1
4	08.11.2018	ESD-912-1001-04	Entity Parameters & Behavior under Fault condition	6
5	08.11.2018	ESD-912-1001-05	Battery Specifications and Test	3
6	08.11.2018	ESD-912-1001-07	Schematic circuit diagram & BOM	2
7	09.11.2018	ESD-912-1001-DOC8	Wire & cable chart	1
8	15.11.2018	ESD-912-1001-09	Statement from PCB supplier & Gerber Films	2
9	22.11.2018	ESD-912-1001-10	Conformal coating	10
10	10.11.2018	ESD-912-000-00	Earth Clamp Assembly	2

**END OF THE DOCUMENT**

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