

EARTHING INTEGRITY MONITORING SYSTEM
TANK TRUCK LOADING/UNLOADING
USER MANUAL

PRECIOUS INSTRUMENTS

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PRECIOUS

INSTRUMENTS

214, godavari indl. estate, laxmi indl.complex, vartaknaqar,thane (w) –400606.

Warranty Certificate

Earthing Integrity Monitoring System

Tank-Truck Loading /Unloading

SR No : EIMS - 02-Tank truck L/U – 101

Dated :25/11/2012

This product's warranty, provided by our company, covers a period of 1 year from the date of purchase. All faulty parts and/or functions, resulting despite user's normal use, will be repaired and/or replaced at no charge during the warranty period. However, if any of the malfunctions are caused by user carelessness, inadequate maintenance, or natural disaster, we will provide repair and/or replacement services for a fee regardless of warranty period.

In the event our product does not prove suitable for your application you can return the product for an exchange or refund. To claim, the product must be returned in good condition within 14 days. Before returning a product, please contact and provide us a serial number. The customer is responsible for all shipping costs. However parts such as lamp, fuses etc, that do not have predictable life are not covered in this warranty. This warranty does not apply to instrument which, after our inspection, are determined to have been damaged due to neglect, abuse, overloading, accident or improper usage. All shipping and handling charges will be paid by the customer..

This product has been processed through careful quality control and testing procedures. Any malfunctions occurring during normal use are covered under the guidelines of the "Certificate of Product Warranty", which is included in this Manual.

Precious Instruments
Authorized Signatory

Dated

Features:

- 1) Electronic Grounding System provides failsafe tanker truck loading.
- 2) Confirms *clamp* is connected to road tanker
- 3) Verified low resistance connection to true Earth (0-20 Ω Settable pot 5k provided inside)
- 4) A continuously monitored tanker to grounding point connection resistance is good enough throughout product transfer process.
- 5) Provides visual Green indication of earth ok and Red for not ok.
- 6) System is provided with flameproof audio alarm for one min if earth is not ok.
- 7) Provides potential free contact to interlock the system which automatically stop the process

Reliability:

- System is independently tested and approved for use in group IIA/IIB hazardous atmosphere.
- Confirming the 08 year track record of proven system reliability and performance.

Flexibility:

- Can be mounted at remote loading stations and connected to locally verified earth points, can reduce the cost of installation and maintenance.

Compliance:

- System compliance with the best practice guidelines which recommend that road tankers present in hazardous atmospheres be fully earthed prior to and during the throughout transfer.

Technical features:

- 1) Input supply voltage : 230 v ac
- 2) Input test probe: 01-for instrument to tanker
- 3) Earth probe -02 : for earth pit to tanker
- 4) Output -01:1c/o potential free interlock contact
- 5) output -02 : 1c/o 230 v ac for audio alarm
- 6) Operating temperature: -25 to 50 °C
- 7) enclosure material : die cast aluminum
- 8) Protection : IP65-CMRI-IIA/IIB
Flameproof
- 9) Grounding clamp : universal heavy duty suitable for all common tank, truck, drum and conductive plant equipment
- 10) Grounding cable : 10 sq mm x 8mtr. x 02 No
- 11) Verify low resistance connection to true earth. **(less than 0-10 Ω Settable)**

Applications:

- 1) Chemical tankers loading/unloading
- 2) Petrol tanker loading /unloading
- 3) API solvent couplers

INSTALLATION

- 1) Connect single phase power supply 230 v ac L N E (line ,neutral and earth) As per connection details provided in the terminal junction box.
- 2) Connect earthing from earth pit connection to the tanker via clamp cable provided along with the unit
- 3) Connect Earthing test probes between earth E1 terminal on instrument terminal junction box And tanker to ensure earthing to the tanker. Which is provided along with unit.
- 4) When power is on unit will Verify low resistance connection to true earth. And continuously monitored tanker to grounding point connection resistance is **(less than 10 Ω)** Low good throughout product transfer process
- 5) If earthing is healthy instrument provides visual **Green** indication of **earth ok along with a NC** potential free contact to interlock the process.
- 6) If earthing is not healthy or break or intermittent instrument provides visual **RED indication of earth not ok along with a NO** potential free contact which stops process if it is interlocked. Same time audio alarm is provided for 1 min if time interval for acknowledge of earth is not ok
- 7) System has to reset every time when new operation cycle starts.

***For cross verification and unit checking :
Short earth test probes E1 to Instrument earth connection and reset the instrument. If green indication lamp is ON Then instrument is working ok.***

1	2	3	4	5	6	7	8
L	N	E	E1	L	N	C	NO
230 V AC I/P			EARTH PROBE	230 v ac hooter		INTER LOCK CONTACT	

