

[1]

EC-TYPE EXAMINATION CERTIFICATE



[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3]

EC-Type Examination Certificate Number: **DEMKO 11 ATEX 1048757X Rev. 2**

[4]

Equipment or Protective System: **Ground Indicator, R1L-E2A**

[5]

Manufacturer: **TEGAM Inc.**

[6]

Address: **10 Tegam Way, Geneva, OH 44041, USA**

[7]

This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **4786314967**

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009

EN 60079-11:2007

EN60079-26:2007

[10]

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.

These are not covered by the certificate.

[12]

The marking of the equipment or protective system shall include the following:

II 1 G Ex ia IIA T4 Ga

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2011-12-08

Re-issued: 2014-03-06

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



[13]
[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1048757X Rev. 2
Report: 4786314967

[15]

Description of Equipment or protective system

The R1L-E2A is a portable ground indicator with the ability to provide a resistance measurement. The apparatus consists of the main unit supplied with test probes, a pair of pistol-shaped test probes (HTP-101A) and/or a pair of pencil-shaped test probes (SKP-8), each 8.5 feet in length. Power for the R1L-E2A is supplied by three 1.5 V, size "D" alkaline cells, which are user replaceable only in an unclassified location.

Temperature range

The ambient temperature range is -20°C to +50°C.

Electrical data

For use three (3) 1.5V, size "D" alkaline batteries, Model E95 manufactured by Energizer, connected in series.

Installation instructions

The apparatus is provided with a copy of the installation instructions, which contains the battery requirements as well as instructions for safe operation.

Routine tests

None.

[16]

Report No.

Project Report No.: 4786314967 (Hazardous Location Testing)

Documents:

Description:	Drawing No.:	Rev. Level:	Date:
R1L-E2A Artwork, Front Panel	ART-100056	G	
R1L-E2A Manual	R1L-E2A-900-01	F	
Internal Wiring	R1L-E2A-003	A	
Internal Wiring	R1L-E2A-005	A	
Milliohm Meter, Schematic	R1L-E2-106	H03	
Milliohm Meter, PCB Parts List	R1L-E2-101	H03	
Milliohm Meter, PCB Layout	R1L-E2-102	H	
Milliohm Meter, PCB Layout	R1L-E2-102	G	
Milliohm Meter, Schematic	R1L-E2-106	K01	
Milliohm Meter, PCB Parts List	R1L-E2-101	K01	
Milliohm Meter, PCB Layout	R1L-E2-102	K	
Milliohm Meter, PCB alternate assembly	R1L-E2A-004	A	
Binding Post Interconnect PCB Schematic	R1L-E2A-166	A01	
Binding Post Interconnect PCB Parts List	R1L-E2A-161	A01	
Binding Post Interconnect PCB Layout	R1L-E2A-162	A	
Handle, Case	R1L-E2A-350	A	
Overmold Large Handle Mold	R1L-E2A-354	A	
Handle Lug	R1L-E2A-352	A	
Case, R1L-E2A	1520	A	
Probe Housing Right Side	HO-13524	A	
Probe Housing , Left Side	HO-13525	A	
Half Handle, Label Side, White	SKP-311-1	A	
Handle Half, Back Side, White	SKP-311-2	A	
Probe Socket Insert, Dual S-5, White	SKP-311-3	A	
Half Handle, Label Side, Red	SKP-312-1	A	
Handle Half, Back Side, Red	SKP-312-2	A	
Probe Socket Insert, Dual S-5, Red	SKP-312-3	A	
Antistatic Resin, Red	RS-ANTISTAT-RED	A	
Antistatic Resin, White	RS-ANTISTAT-WHT	A	
Overall Bill of Materials	R1L-E2A	-	



[13]

[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1048757X Rev. 2
Report: 4786314967

Binding Post, 5-Way, Hex	BP-30-*	B
Knob, Knurled, 1/4in Shaft	KN-105	B
Front Panel, Overlay	R1LE2-332	G
Switch, PB, Moment, Blue	SW-150	B
Switch, PB, ALT, Green	SW-160	B

[17]

Special conditions for safe use:

- The apparatus shall not be connected to any external circuits, capacitance, or inductance.
- The apparatus is intended for use only with battery Model E95 manufactured by Energizer.
- The panel bezel is made of a light alloy. Care must be taken to avoid ignition hazards due to impact or friction.

[18]

Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Annex III of ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information

The R1L-E2A has in addition passed the tests for Ingress Protection to IP 20 in accordance with EN60529: 1991/A1 2001.

This certificate was issued as "Accredited by DANAK under registration number 7011 to certification of products".

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

