



Certificate of Compliance

Certificate Number: LR 65547-31

Revision: LR 65547-31

Date Issued: October 15, 1998.

Issued to: Guardian Telecom Inc.
7000 Fisher Rd., S.E
Calgary, AB T2H 0W3
Canada
Attention:

The products listed below are eligible to bear the CSA Mark shown



Issued by: Dave Adams, P.Eng.
Edmonton, AB Canada

Signature:

CLASS

4818 02 - SIGNAL APPLIANCES - Audible - For Hazardous Locations

PRODUCTS

CLASS I, GROUPS B, C and D; CLASS I, ZONE 1, GROUP IIB + H2; CLASS II, GROUPS E, F and G; CLASS III; Temperature Code T5. Enclosure Type 4X.

Model CE20 Explosion-proof Telephone Ringer with Projection Horn, rated 42-110Vac, 7-20mA @ 20Hz. Permanently mounted. Suitable for use in Class I, Groups B, C and D; Class I, Zone 1, Group IIB + H2; Class II, Groups E, F and G; Class III Hazardous Locations. Temperature Code T5. Enclosure Type 4X.

CLASS I, GROUPS B, C and D; CLASS I, ZONE 1, GROUP IIB + H2; CLASS II, DIV. 2, GROUPS F and G; CLASS III; Temperature Code T5.

Model CE20 Explosion-proof Telephone Ringer without Projection Horn, rated 42-110Vac, 7-20mA @ 20Hz. Permanently mounted. Suitable for use in Class I, Groups B, C and D; Class I, Zone 1, Group IIB + H2; Class II, Div. 2, Groups F and G; Class III Hazardous Locations. Temperature Code T5.

Model CE20 Explosion-proof Paging Decoder without Projection Horn, rated 12Vdc @ 300mA. Permanently mounted. Suitable for use in Class I, Groups B, C and D; Class I, Zone 1, Group IIB + H2; Class II, Div. 2, Groups F and G; Class III Hazardous Locations. Temperature Code T5.



APPLICABLE REQUIREMENTS

The following Standards were used as a guide in the evaluation of the products covered by this report:

- CSA Standard C22.2 No. 0-M91 - General Requirements, Canadian Electrical Code, Part II.
- 0.4-M1982 - Bonding and Grounding of Electrical Equipment (Protective Grounding).
- 0.5-1982 - Threaded Conduit Entries.
- 25-1966 - Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
- 30-M1986 - Explosion-proof Enclosures for Use in Class I Hazardous Locations.
- 94-M1991 - Special Purpose Enclosures.
- 205-M1983 - Signal Equipment.
- 225-M90 - Telecommunication Equipment.

MARKINGS

The following information appears on the Model CE20 Explosion-proof Telephone Ringer Label with or without Projection Horn, and the Model CE20 Explosion-proof Paging Decoder:

- (1) Submitter's name, trademark, or the CSA file number (adjacent the CSA Mark).
- (2) Catalogue/Model designation.
- (3) Complete Electrical Ratings (Volts, Amps, and Hertz).
- (4) Date code or Serial Number traceable to month and year of manufacture.
- (5) Temperature Code Rating.
- (6) Hazardous Location designations.
- (7) Enclosure Type (ONLY for Telephone Ringer with Projection Horn, Type 4X).
- (8) The CSA Mark.
- (9) The following caution statement (Telephone Ringer with Projection Horn ONLY):
CAUTION: ENCLOSURE FOR USE WITH GUARDIAN TELECOM PROJECTION HORN (P/N P004479) FOR MAINTAINING CLASS II, DIV 1 AND TYPE 4X ENVIRONMENTS.
- (10) The following caution statement:
CAUTION: CONDUIT RUNS MUST HAVE A SEALING FITTING INSTALLED WITHIN 18 INCHES OF THIS ENCLOSURE.
- (11) The following warning statement:
WARNING: TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, DISCONNECT FROM SUPPLY CIRCUIT BEFORE OPENING. KEEP ASSEMBLY TIGHTLY CLOSED WHEN IN OPERATION.



METHOD OF MARKING

The following specifications are to be used as the method of marking. All labels to be from a CSA accepted vendor.

- Model CE20 Label
- CSA Accepted
- Type: Nameplate secured by #4 drive screws engaging bottomed holes.
- Material: Aluminum, Red Anodized
- Thickness: 0.020" (minimum)
- Print: Silver on Red Background

FACTORY TESTS

Dielectric

The equipment at the conclusion of manufacture, prior to shipment, shall withstand for one minute without breakdown, the application of the following potentials:

- (1) 1000V plus twice the nominal system voltage marked on the equipment between terminal connectors and the enclosure (grounding terminal means).
- (2) 1500V between telecommunication network connections and the enclosure (grounding terminal means).
- (3) 500V between extra-low voltage parts and the enclosure (grounding terminal means), if such circuits leave or enter the enclosure.

Notes

- (1) As an alternative, potentials 20 percent higher may be applied for one second.
- (2) The required dielectric strength test may be made by applying a DC potential, providing it is 1.414 times the AC test potential.
- (3) Capacitors in extra-low voltage circuits may be disconnected during the dielectric test.
- (4) The test specified in Item (3) shall be waived on grounded or Class 2 circuits.

Warning

The factory test(s) specified may present a hazard of injury to personnel and/or property, and should be performed by persons knowledgeable of such hazards, and under conditions designed to minimize the possibility of injury.