

INTRINSIC SAFETY USER NOTICE

PRTRANS1000IS

Intrinsic Safety Approval:

The PRTrans1000IS has been certified by FM Approvals as Intrinsically Safe (IS) for use in Class I, Division 1, groups A, B, C, D, and Nonincendive (NI) for use in Class I, Division 2, groups A, B, C, D indoor hazardous (classified) Locations. The rating is listed as follows in the Factory Mutual approval guide:

PRTrans1000is. Pressure Recorder.

IS / I / 1 / ABCD T4A Ta=80 °C; NI / I / 2 / ABCD / T4A Ta=80 °C

Special Condition of Use:

1. Use only with Tadiran Battery P/N TL-2150.

These are the only safety ratings relevant to the use of this product. Use of this product in hazardous environments not specifically covered by this rating is prohibited, unless the user takes the appropriate steps to ensure the safety of the product and assumes full responsibility for its safe use. Refer to the reference sections at the end of this document for further information on approval standards and environments.

Conditions of Use:

The following conditions must be satisfied to maintain the IS rating of the PRTrans1000IS:

- When used in hazardous locations, the PRTrans1000IS is to be **installed prior to the location becoming hazardous**, and **removed only after the area is no longer hazardous**.
- The maximum allowed ambient temperature for the PRTrans1000IS (under any circumstances) is **80 °C**. The minimum rated operating temperature is -40 °C.
- The PRTrans1000IS is approved for use *only* with the **Tadiran TL-2150/S** battery. **Replacement with any other battery will void the safety rating.**
- Batteries are user replaceable, but are to be removed or replaced *only* in locations known to be **non-hazardous**.
- Tampering or replacement of non-factory components may adversely affect the safe use of the product, and prohibited. Except for replacement of the battery, **the user may not service the PRTrans1000IS**. MadgeTech, Inc. or an authorized representative must perform all other service to the product.

- The PRTransp1000IS enclosure does not carry a NEMA rating. For this reason, the product is **only suitable for use in indoor locations**.
- For enclosure requirements, please consult Standard ANSI/ISA S82.02.01 (reference on next page) or other applicable ordinary location standards.

Required Labeling:

The following label must be affixed to the PRTrans1000IS. It contains critical information for the safe use of the product.



Reference Standards:

The PRTrans1000IS complies with the following standards:

Standard	Date	Title
FM Class 3600	1998	Electrical Equipment for Use in Hazardous (Classified) Locations, General Requirements
FM Class 3610	1999	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1 and Class I, Zone 0 and 1 Hazardous (Classified) Locations
FM Class 3611	2004	Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
FM Class 3810 Including Supplement #1	1995 2005	Electrical and Electronic Test, Measuring and Process Control Equipment

Protection and Environment Reference:

The environmental rating is per ANSI/NFPA 70 National Electric Code® (NEC®) Article 500. The following is information excerpted from FM Approvals reference documents.

Protection Concepts

Type of Protection	Code	Permitted Use	Standard
Intrinsic Safety	(IS)	Class I, Division 1	FM Class 3610
Non-Incendive	(NI)	Class I, Division 2	FM Class 3611

Apparatus Grouping Per NEC® 500:

Class	Group	Typical Gas
I	A	Acetylene
	B	Hydrogen
	C	Ethylene
	D	Propane

Area Classification Per NEC® 500:

Division	Description
1	Flammable Material Present Continuously
	Flammable Material Present Intermittently
2	Flammable Material Present Abnormally

Temperature Class Per NEC® 500:

Temperature Class	Maximum Surface Temperature (of any component under fault conditions)
T4A	120 °C (with maximum 80 °C ambient)

NOTE: The T4A rating indicates the maximum surface temperature potentially encountered in a fault condition. **This is not the allowed operating temperature.** This temperature rating limits the maximum ambient temperature of 80 °C.

ANSI/ISA S82.02.01 Standard:

Title	Electric and Electronic Test, Measuring, Controlling, and Related Equipment: General Requirements
Abstract	Specifies the safety requirements that are generally applicable to all equipment within its scope. For certain types of equipment, these requirements will be supplemented or modified by the special requirements of a particular standard that must be read in conjunction with Part 1 requirements. This International Standard specifies general safety requirements for electrical equipment intended for professional, industrial process, and educational use, including equipment and computing devices for: measurement and test, control, laboratory use, and accessories intended for use with the above (e.g., sample handling equipment).