INTRINSIC SAFETY USER NOTICE
TEMP1000IS

Intrinsic Safety Approval:

The Temp1000IS has been certified by FM Approvals as Intrinsically Safe (IS) for use in Class I, Division 1, groups A, B, C, D, and Non-incendive (NI) for use in Class I, Division 2, groups A, B, C, D indoor and outdoor, Type 4X, 6P Hazardous (Classified) Locations. The rating is listed as follows in the Factory Mutual approval guide:

Temp1000is. Temperature Recorder.
IS / I / 1 / ABCD T4A Ta=80 °C; NI / I / 2 / ABCD / T4A Ta=80 °C; Type 4X, 6P

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.

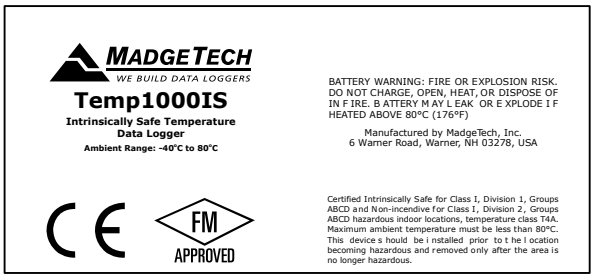
Conditions of Use:

The following conditions must be satisfied to maintain the IS rating of the Temp1000IS:

- When used in hazardous locations, the Temp1000IS 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 Temp1000IS (under any circumstances) is **80 °C**. The minimum rated operating temperature is -40 °C.
- The Temp1000IS 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 Temp1000IS**. MadgeTech, Inc. or an authorized representative must perform all other service to the product.
- The Temp1000IS enclosure is rated NEMA 4X, 6P, so it is suitable for use in both indoor and outdoor locations. However, **to maintain the NEMA rating, the cover must be fully closed and secured**.

Required Labeling:

The following label must be engraved to the enclosure of the Temp1000IS. It contains critical information for the safe use of the product.



Reference Standards:

The Temp1000IS complies with the following standards:

Standard	Date	Title
FM Class 3600	2011	Electrical Equipment for Use in Hazardous (Classified) Locations, General Requirements
FM Class 3610	2010	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
ANSI/NEMA 250	1991	Enclosures for Electrical 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.

Enclosure Reference:

The enclosure rating is per ANSI/NEMA 250, Enclosures for Electrical Equipment.

Enclosure Types Per NEMA 250:

Enclosure Type	Description
4X	Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); that provides an additional level of protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure.
6P	Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (hose directed water and the entry of water during prolonged submersion at a limited depth); that provides an additional level of protection against corrosion and that will be undamaged by the external formation of ice on the enclosure.

A NEMA 4X rating meets or exceeds IP55 requirements, and NEMA 6P meets or exceeds IP67 requirements per IEC 60529.