INTRINSICALLY SAFE LEVEL ALARM

Battery powered tank alarm for hazardous locations responds to high or low level with a loud buzzer and flashing LED.

Model IS-T-SS is a rugged tank level alarm that can be installed in minutes with no wiring. Just connect the battery. Stainless steel construction.

OPERATION

When liquid level changes the float position, a 102dB buzzer sounds and LED flashes. Pressing the button silences the buzzer while LED continues to flash. After 30 minutes the buzzer sounds again if the level condition not corrected. (in the default operating mode. Other modes are field-selectable)

FEATURES

- 🔴 Lithium thionyl chloride battery included lasts for many years. 20-year shelf life.

- 🔴 Class 1, Div. 1. groups C and/or D, T4. 60079-0 and 60079-11.   UL913 - 8th.

- 🔴 Waterproof. Suitable for wash down duty and outdoor use. IP65.

- 🔴 316 stainless steel construction.

- 🔴 Optional float guard protects the float switch for rough use.

- 🔴 Many other behavior modes are selectable in the field using switches located inside the box. (repeating alarm, button turns off buzzer and LED for tank filling,, etc)

- 🔴 Lithium battery is replaceable in the field. Lasts for years. Low battery alert.

OPTIONS

Dual float switches, relay output, custom configurations, choice of different materials like Kynar, PP.

MORE INFORMATION at product webpage: https://gizmo-engineering.com/products/intrinsically-safe/intrinsically-safe-tank-alarm/

REAR VIEW

OPTIONAL FLOAT GUARD

INTRINSICALLY SAFE TANK ALARM IS-T

1. CONNECT BATTERY

The battery pack connects with the JST connector. Only battery model BT-IS may be used. Battery is Intrinsically Safe and may be changed in the hazardous area. Refer to control drawing IS-001.

BATTERY BT-IS

2. PROGRAM DESIRED MODE

• The modes available are selected using the DIP switches as follows:

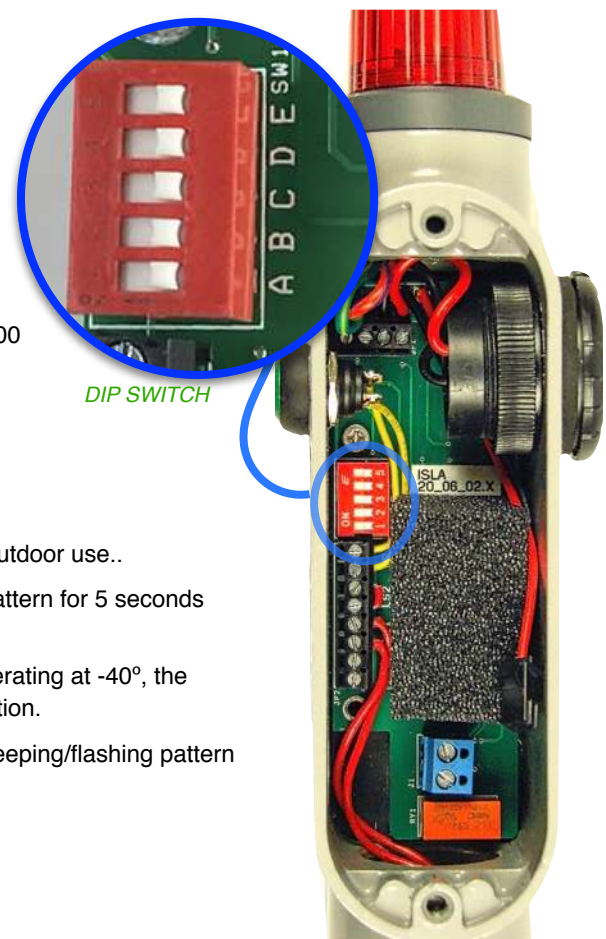| SWITCH	LEFT	RIGHT
E	Relay output delayed 15 mins.	Relay output is immediate.
D	RelayN.C	Relay N.O.
C	Auto reset of LED, buzzer and relay when level is corrected.	Manual reset: must push button after level is corrected to reset LED and relay.
B	PB shuts off buzzer, but LED & relay stay on until both level is corrected.	Pressing button shuts off buzzer and LED, and resets relay, regardless of level.
A	30 minute buzzer snooze alarm	No buzzer snooze alarm

3. OPERATION

• When there is a level alarm, the LED and buzzer will alternate. The button silences the buzzer. In the mode with switch #2 "ON", the LED will continue to flash until level is corrected. If switch #1 is "ON" the buzzer will sound again after a 30 minute "snooze".

• If the alarm sounds for 60 minutes, the alarm output will be reduced to save battery power. After 60 minutes, all alarms will be reduced to only 5 sec. every 30 seconds. This allows the alarm to last for up to 600 hours (25 days) in this power-saving mode.

DIP SWITCH

4. OTHER POINTS

• The float switch is reversible.

• Operating temperature is -40ºC to 60ºC. (-40ºF to 140ºF) Rated for outdoor use..

• Low battery is indicated by an alarm with which has a rapid beeping pattern for 5 seconds every 30 seconds.

• Very low temperatures will diminish the battery life. For example if operating at -40º, the battery will be reduced by half. See website for more detailed information.

• If there is a second sensor connected,(on LS2) it will have a slower beeping/flashing pattern from the first sensor. (slow vs. fast pattern)

INTRINSICALLY SAFE TANK ALARM IS-T

5. RELAY OUTPUT

- If the relay output is to be connected, follow parameters in "Control Drawing "IS-001" so the remote device in the "safe" area does not introduce an unsafe voltage into the hazardous area. Connect the remote device through an Intrinsically Safe barrier. . Connect the output cable to the T-IS using the cable with screw-lock connector provided.

6. EXAMPLE INSTALLATION

- Install T-IS on a tank or drum by screwing the mounting thread into the tank or drum.

DRUM WITH IS-T ALARM

7. HAZARDOUS LOCATION SAFETY INFORMATION

MARKINGS
- The following label will appear on the product indicating all the relevant markings which are applicable.

ENVIRONMENTAL CONDITIONS
- Outdoor, -40 to +60ºC, 2000m elevation.

APPLICABLE STANDARDS

CAN/CSA-C22.2 No. 0-10
CAN/CSA-C22.2 No. 60079-0:15
CAN/CSA-C22.2 No. 60079-11:14
ISANSI/ISA-60079-0 (12.00.01)-2013
ANSI/ISA 60079-11 (12.02.01)-2014
CAN/CSA C22.2 No. 61010-1-12
ANSI/UL 61010-1, 3rd Edition
CAN/CSA-C22.2 No. 60529:16
UL913 Ed 8.0

Gizmo Engineering
Model. IS-T
Serial number: 8002
-40°C ≤ Tamb ≤ 60°C, IP65

Electrical rating 7.2VDC, 35mA
Ex ia IIB T4 Ga
Class I, Zone 0, AEx ia IIB T4 Ga
Class I, Div. 1, Grp C and D, T4
See control drawing IS-001

WARNINGS
- Use Intrinsically Safe battery package BT-IS only with Intrinsically Safe Models IS-AB, IS-T or IS-D.
- Potential electrostatic charging hazard - see instruction.

AVERTISSEMENT:
- utilisez un pack de batterie intrinsèquement sûr BT-IS uniquement avec des modèles à sécurité intrinsèque IS-AB, IS-T ou IS-D.
- Risque potentiel de charge électrostatique - voir les instructions.

CSA
263009
C US
Intrinsically Safe Ex ia
Sécurité Intrinsèque Ex ia

INTRINSICALLY SAFE TANK ALARM IS-T

• This product has been certified to the following standards:

NOTES

• The enclosure of IS-D is manufactured from Aluminum. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation. Use care not to cause impacts or scrapes with other metal objects during installation.

CONDITIONS OF ACCEPTABILITY:

• Simple Apparatus switches are permitted for connection with models IS-AB, IS-T or IS-D, provided that the end user must comply with the following conditions:

• the Simple Apparatus switches are used within their ratings

• the Entity parameters of Drum Alarm device are regarded and correctly applied when connecting the Simple Apparatus switch.

• the Simple Apparatus switch used with any Drum Alarm models IS-AB, IS-T or IS-D shall not form or considered part of the Drum Alarm device.

• Refer to the Control Drawing IS-001 rev. 4.

Gizmo
Engineering

2257 County Rd. 4, building #3 Stanley, NY 14561   www.gizmo-engineering.com