

INTRINSICALLY SAFE DRUM ALARM IS-D

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.



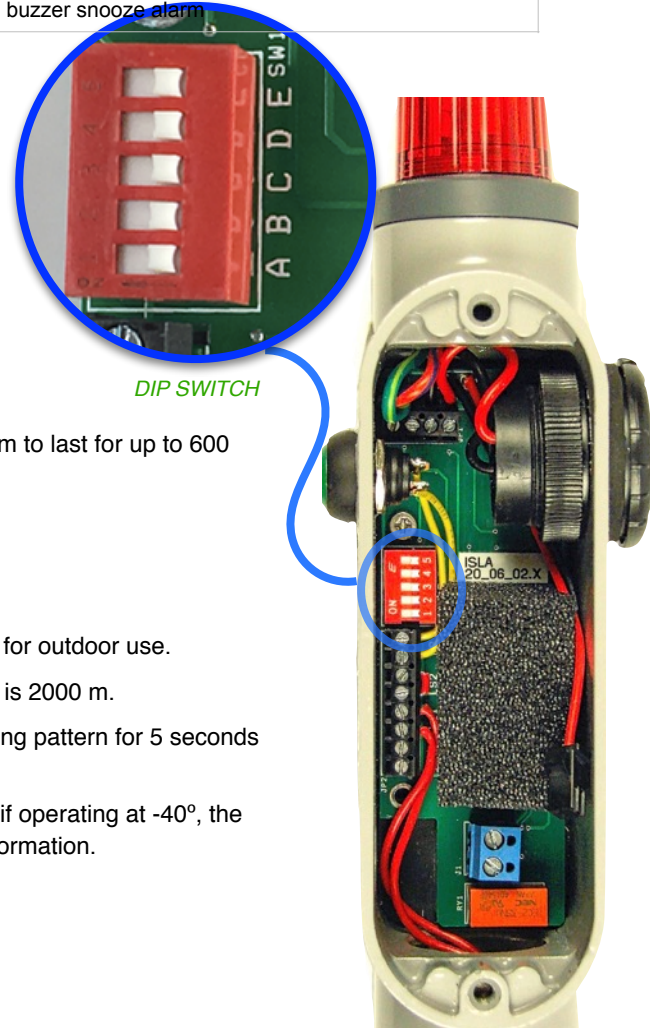
2. PROGRAM DESIRED MODE

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	Relay N.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.



4. OTHER POINTS

- Operating temperature is -40°C to 60°C. (-40°F to 140°F) Rated for outdoor use.
- If there is a cable attached to the enclosure, the maximum length is 2000 m.
- 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 -40°, the battery will be reduced by half. See website for more detailed information.

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5. RELAY OUTPUT OPTION

- 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 IS-D using the cable with screw-lock connector provided.
- There will be an alarm and relay output if the cable becomes disconnected.

6. EXAMPLE INSTALLATION

- Mount IS-D on a drum by screwing the mounting thread into the bung, or placing the mounting cap over the bung, as applicable.



DRUM WITH IS-D 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 +60°C, 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, 3 rd Edition
CAN/CSA-C22.2 No. 60529:16

- This product has been certified to the following standards:

WARNINGS

- Use Intrinsically Safe battery package BT-IS only with Intrinsically Safe model IS-D.
- Potential electrostatic charging hazard - see control drawing.

ADVERTISSEMENT

- Utilisez le pack de batteries à sécurité intrinsèque BT-IS uniquement avec le modèle IS-D à sécurité intrinsèque.
- Risque potentiel de charge électrostatique - voir les instructions.

NOTES

- See Control Drawing below.



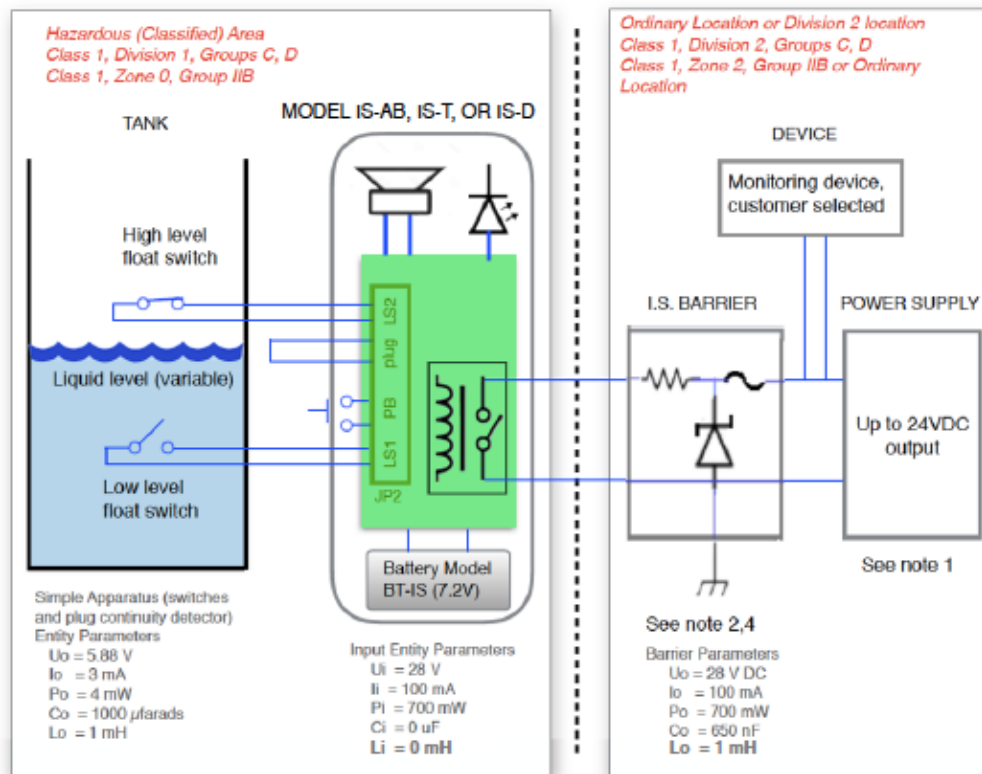
LABEL

INTRINSICALLY SAFE DRUM ALARM IS-D

GIZMO ENGINEERING CONTROL DRAWING FOR MODEL IS-AB, IS-T, AND IS-D

NOTES

- Maximum safe area voltage is 250V.
- The associated apparatus (barrier) must be connected to a suitable ground electrode per the National Electrical Code (NFPA 70) the Canadian Electrical Code, or other installation codes, as applicable by the authority having jurisdiction. (AHJ)
- Tank float switches, push-button, and continuity wire in Division 1/Zone 0 are Simple Apparatus.
- The resistance of the ground path must be less than 1 Ω .
- Intrinsically safe circuits must be wired and separated in accordance with Article 504.20 of the National Electrical Code (ANIS/NFPA 70) or other local codes, as applicable.
- The associated apparatus has not been evaluated for use in combination with another associated apparatus.
- This drawing may not be altered without notice to the certification body.
- Battery package is Intrinsically Safe and may be replaced in the Hazardous Location.
- Only Intrinsically Safe battery package BT-IS must be used with models IS-AB, IS-T, or IS-D.
- Float switches, Plug Continuity circuit and Push Button switch are all derived from the same circuit and operate at extremely low power, and separation per NEC 504.30 (B) is not required because combined energy from all 4 circuits is Intrinsically Safe. Intrinsically Safe circuits in connector JP2 must be separated from the the Barrier Protected Intrinsically Safe circuit of RY1 by at least 6 mm (0.25 inch)
- Environmental Conditions: Outdoor, -40°C to +60°C, 2000m max.
- The enclosure of IS-T and IS-D are made 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.
- Under certain extreme circumstances, exposed plastics and unearthed metal parts of the enclosure of models IS-AB, IS-T, IS-D may store an ignition capable of an electrostatic charge. Therefore the user/installer shall implement provisions to prevent the buildup of electrostatic charge, i.e. locate the equipment where a charge-generating mechanism is unlikely to be present, and clean only with a water-moistened cloth.



TITLE: Control Drawing		FILE: Control Drawing IS-001	
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