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EPPH-229AH

Indoor Intrinsically Safe Telephone and Exp Proof Isolation Barrier – C1/2/3,D1/2 - 120V/240V

Product ID: 49547



Image: EPPH-229AH

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

EPPH-229AH Intrinsically Safe Telephone and Exp Proof Isolation Barrier – CI,II,III,D1/2 - 120V/240V Options

Intrinsically Safe Telephone Specs

Device Type: Telephone (EPPH-229AH)
Dimensions: 8” x 9.5” x 3.8”
Weight: 6 lbs
Operational Voltage: 110VAC/220VAC
Operating Temp Range: -40°C to +60°C
Keypad: Braille Metallic
Ringer: Shrill-Type Penetrating Ringer
Microphone: Dynamic Noise-Cancelling
Signaling: DTMF only

Explosion Proof Isolation Barrier Specs

Device Type: Isolation Barrier Unit (Non-classified)
Telephone Network Interface: BELL Pub.61100 Compatible (2-Wire) and 4-Wire Options
AC Power Input: 90-132V or 180-240V
Frequency: 47-63 Hz
Current: 0.5 Amps
ISI Voltage: 8V (Maximum)
ISI Resistance: 66 Ohms (Maximum)
ISI Current Limited: 136 mA (Maximum)
Ringer Pitch Adjust: 1 kHz - 8 kHz (Nominal)
Indicators: IS Loop Current (IS LOOP, GRN), IS Lock Detect (IS LOCK, GRN), Telephone Line Loop Current (TELCO, YEL), Hook (HOOK, YEL)
Wiring Construction: Twisted Pair
Wiring Type: Shielded

Quick Summary

Intrinsically Safe Telephone Summary

Class I, Division 1, Groups A, B, C and D
Class II, Groups, E, F and G (Including Coal Dust)
Class III, Division 2, Groups A, B, C and D
ISO 9001 Certified
cUL/UL Listed
Hearing Aid Compatible (HAC)
NEMA Type 12

Explosion Proof Isolation Barrier Summary

Class I, Groups A, B, C, D (Approved)
Class II, Groups E, F, G (Approved)
Class III (Approved)
Type 3R (Rainproof)
Resistant to Chemicals

Wiring Conductor Size: 24 AWG
Wiring Loop Resistance: 275 Ohms
Wiring Capacitance: 0.316 uF
Operating Temp Range: -40°C to +60°C
Relative Humidity: 95% (Non-Condensing)
Dimensions: 13.16" x 9.39" x 7.46"
Body Material: Glass-Reinforced Polyester
Mounting Holes: 4 (0.280-inch Diameter)
Weight: 8.5 Lbs

Special Orders - Special Requirements
Contact us for special requirements
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Made in the USA

The Larson Electronics indoor intrinsically safe telephone with isolation barrier is designed for use in hazardous work areas, such as chemical plants, oil refineries and settings where combustible gases or dust may be present. Both components may be used together to form an explosion proof telephone system under Class I, II, III, Division 1 and 2 hazardous locations. The indoor telephone is configurable with master/slave systems and rack barrier/isolation barrier configurations. Both system components are 120V/240V compatible (voltage selection at the bottom of the page).

Intrinsically Safe Telephone Features: This intrinsically safe telephone supports a switchable 110VAC/220VAC power supply and 12V nominal voltage. It can operate in temperatures ranging between -40°C and +60°C, making it suitable for subzero environments. The housing is NEMA Type 12 and is constructed of anti-corrosive, polyester material. This allows the unit to resist thermal degradation, while providing protection against chemicals, solvents and salts. The unit is fully sealed with concealed mounting accessories. Weighing just six pounds, the explosion proof communication device supports the following dimensions: 8" x 9.5" x 3.8".

The "G" style handset features a noise-cancelling microphone, as well as robust volume control. A six-foot cord that is made out of Hytrel can be found on the device for extended usage. The keypad is chrome plated and supports Braille functionality. With a REN 0.4B, "shrill-type" penetration ringer, this unit is suitable for moderately loud work environments. This intrinsically safe telephone is registered under FCC Regulations, IC Certified and cUL/UL Listed for use in hazardous installations.

Isolation Barrier Features: The Isolation Barrier supports 90-132V and 180-240V @ 47-63 Hz AC power input options. While the Intrinsically Safe Interface (ISI) features a maximum voltage of eight volts, 66 ohms resistance and 136 mA current limited. The unit is compatible with 2-wire (BELL Pub.61100) and 4-wire telephone network interfaces. This component is to be installed in a non-hazardous area of the location up to one mile from the explosion proof communication device. The Isolation Barrier interior comes with a power switch selector, a ring pitch adjustment, and four troubleshooting LEDs. Externally, the component consists of two modular subassemblies, the front panel and the rear enclosure assembly, for easy installation and wiring.

Operators may adjust the pitch of the ring between 1 kHz and 8 kHz. This device operates in temperatures ranging between -40°C and 60°C with 95 percent (non-condensing) relative humidity. The Isolation Barrier supports a glass-reinforced polyester body, which is Type 3R rated, making it highly resistant to rain, weather and chemicals. There are four indicators on the unit that notifies operators about a wiring short in the IS phone and if the TELCO line has

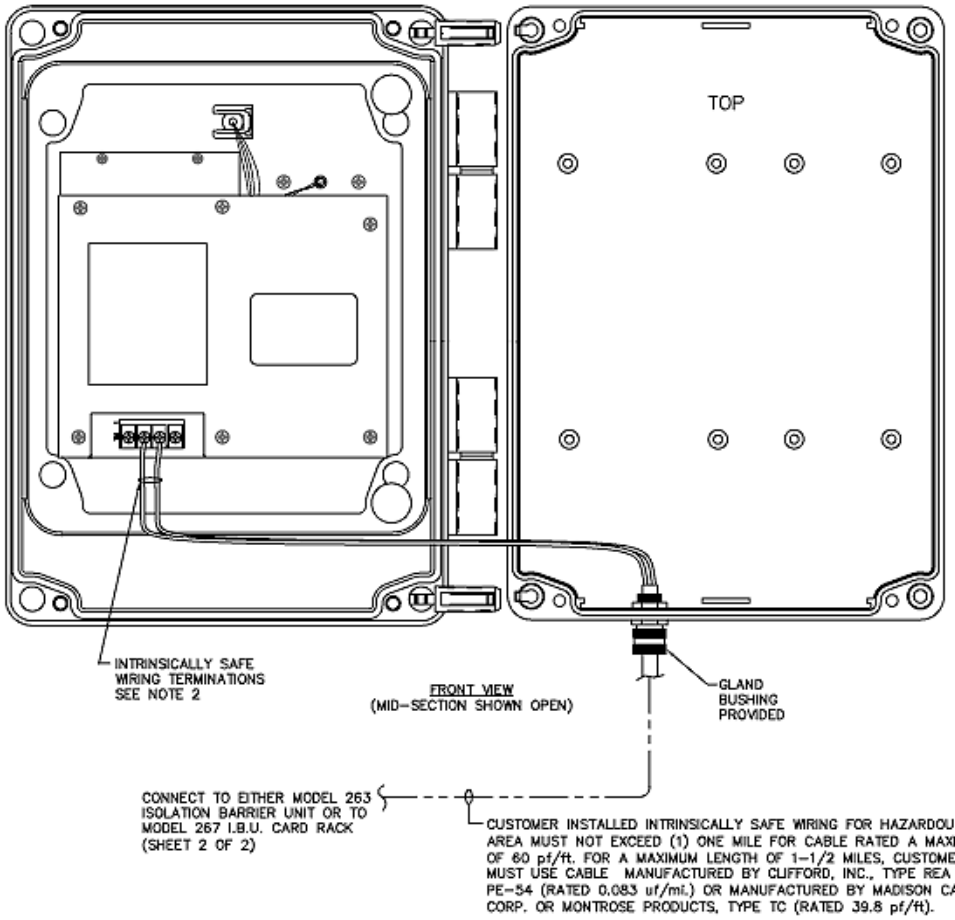
an open. In the event of an intermittent wiring short in the IS phone, the notification lights will flash. The Isolation Barrier features twisted pair (shielded) wiring with a wiring conductor size of 24 AWG. This component's wiring loop resistance is 275 ohms with a wiring capacitance of 0.316 uF.

System Configuration: In an individual system configuration, the indoor phone is installed in the hazardous work area, with a cable connection to the isolation barrier unit in the non-hazardous area. For large communication system configurations or in settings where space is limited, a rack barrier may be used. Please note that the rack barrier and additional outdoor phone units that may be required for a fully functioning communication system do not come with this indoor telephone/isolation barrier system.

If configured as a master/slave system, the master unit controls the speaking and listening function of the slave units. When the master unit's talk mode is being used, the slave units are automatically in listening mode. When the master unit is not being used in talk mode, the slave units will automatically default to talk mode which allows the master to receive audio while allowing hands-free operation for the slave units.

Isolation Barrier Installation: The unit must be wired in accordance with Pub. 42004-380, Control Drawing 73242, to ensure intrinsic safety. Telephone system wire must be connected to the Isolation Barrier Unit only and not directly to the IS communication device. Shielded cables must be used when multiple IS telephone wires are routed together to prevent cross-talk. The shield must be grounded to an IS ground and connected only at the Isolation Barrier. There are four mounting holes (0.280-inch diameter) on this unit.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.



LARSON ELECTRONICS

TITLE:

EPPH-229AH Control Drawing

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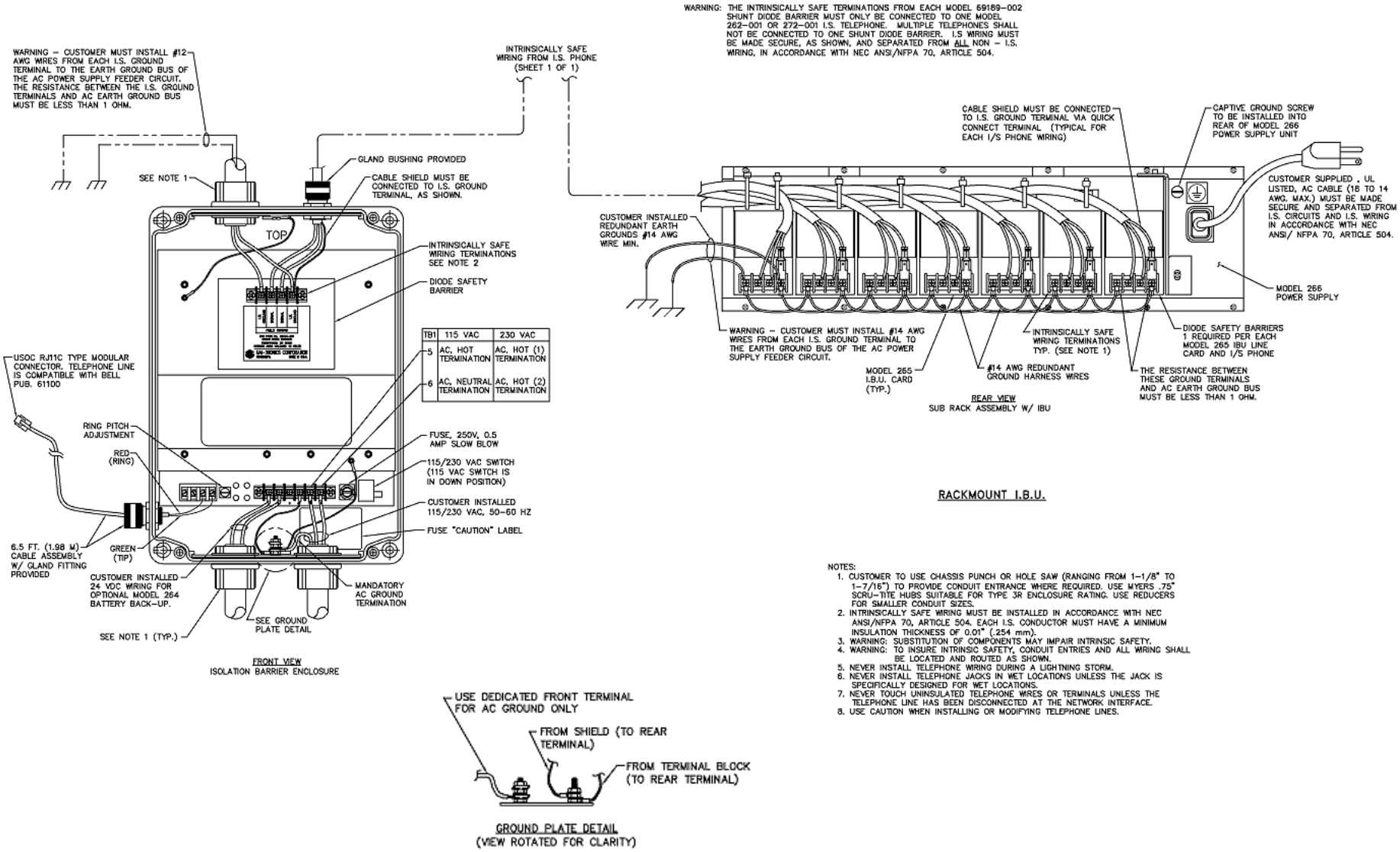

NOTES:
1. CUSTOMER TO USE CHASSIS PUNCH OR HOLE SAW (RANGING FROM 1-1/8" TO 1-7/16") TO PROVIDE CONDUIT ENTRANCE WHERE REQUIRED. USE MYERS .75" SCRU-TITE HUBS SUITABLE FOR TYPE 3R ENCLOSURE RATING. USE REDUCERS FOR SMALLER CONDUIT SIZES.
2. INTRINSICALLY SAFE WIRING MUST BE INSTALLED IN ACCORDANCE WITH NEC ANSI/NFPA 70, ARTICLE 504. EACH I.S. CONDUCTOR MUST HAVE A MINIMUM INSULATION THICKNESS OF 0.01" (.254 mm).
3. WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.
4. WARNING: TO INSURE INTRINSIC SAFETY, CONDUIT ENTRIES AND ALL WIRING SHALL BE LOCATED AND ROUTED AS SHOWN.
5. NEVER INSTALL TELEPHONE WIRING DURING A LIGHTNING STORM.
6. NEVER INSTALL TELEPHONE JACKS IN WET LOCATIONS UNLESS THE JACK IS SPECIFICALLY DESIGNED FOR WET LOCATIONS.
7. NEVER TOUCH UNINSULATED TELEPHONE WIRES OR TERMINALS UNLESS THE TELEPHONE LINE HAS BEEN DISCONNECTED AT THE NETWORK INTERFACE.
8. USE CAUTION WHEN INSTALLING OR MODIFYING TELEPHONE LINES.

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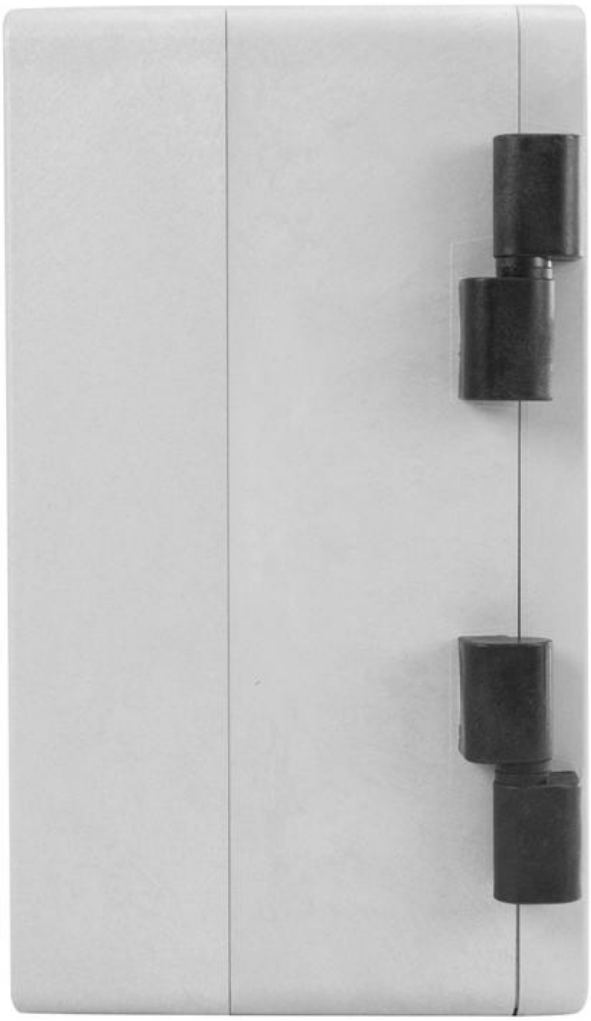

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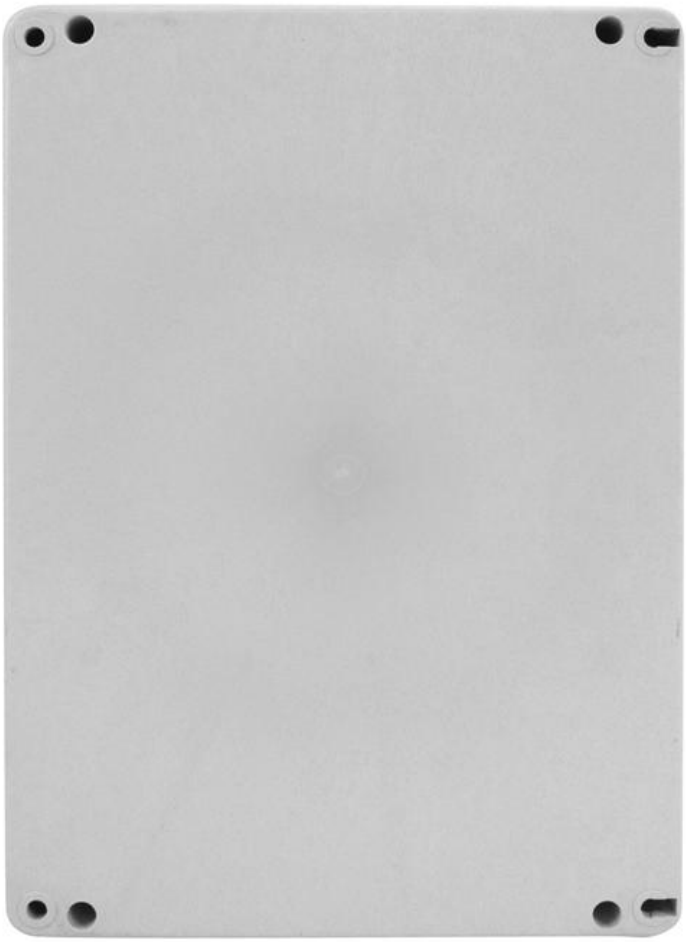

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Frequently Asked Questions (FAQ)

There are no Faqs