

Instructions for Edwards Catalog Series 438DEX and 439DEX FIRE BELLS For Use in Hazardous Locations

DESCRIPTION

Edwards catalog series 438DEX and 439DEX fire bells are heavy duty, diode polarized, vibrating bells intended for use in compatible fire alarm systems and other applications requiring electrical supervision of signaling circuit field wiring. The 438DEX series are AC powered and the 439DEX are DC powered. Both models are UL Listed for use in Class I, Groups B, C, and D; Class II, Groups E, F, and G, and Class III hazardous locations, for Divisions 1 and 2. The bells are electro-mechanical devices and utilize solid state components. These appliances must be installed in accordance with the applicable requirements in the latest editions of the NFPA Codes and Standards, and the local authorities having jurisdiction.

ELECTRICAL SPECIFICATIONS

Catalog Number	Gong Size	Rated Voltage	Alarm Current	dBA rating at 10 feet*
438DEX-6N5	6"	AC 50/60 Hz	.041	83
438DEX-8N5	8"		Amp	86
438DEX-10N5	10"		(RMS)	89
439DEX-6AW	6"	20-24Vdc	.24	83
439DEX-8AW	8"		Amp	86
439DEX-10AW	10"		(average)	89

* Sound level rating is determined in an anechoic chamber on an "A" weighted decibel scale.

MECHANICAL SPECIFICATIONS

Dimensions:

With 6" gong ----- 7" High x 5" Deep
 With 8" gong ----- 9" High x 5-1/8" Deep
 With 10" gong ----- 11" High x 5-1/4" Deep

Weight:

With 6" gong ----- 5-1/4 Pounds
 With 8" gong ----- 7 Pounds
 With 10" gong ----- 8-1/4 Pounds

INSTALLATION

The following items (not supplied) are required for installation of the bell:

- 3 3/4" National Pipe Taper (NPT) conduit to contain signaling circuit wires.
- 3 One 3/4"-14 NPT nipple.
- 3 One conduit outlet box suitable for use in the hazardous location.
- 3 Two fasteners up to 3/8" diameter and washers suitable for securing bell to mounting surface.
- 3 Four wire nuts.

CAUTION

Do not apply power to the bell until installation has been completed and cover has been secured on outlet box.

The bell can be mounted to any solid surface. Install bell as follows:

1. Refer to Figure 1. Remove gong support bolt, remove gong and set aside. Bring bell wires through nipple and secure nipple onto bell (being careful not to twist or crimp wires). Feed bell wires into outlet box and secure outlet box onto nipple (again being careful of wires). Secure the 3/4" NPT conduit onto the outlet box.
2. Place bell against mounting surface and mark mounting hole positions, the dimensions are shown in Figure 2. Install fasteners with washers through mounting brackets and secure bell to surface.

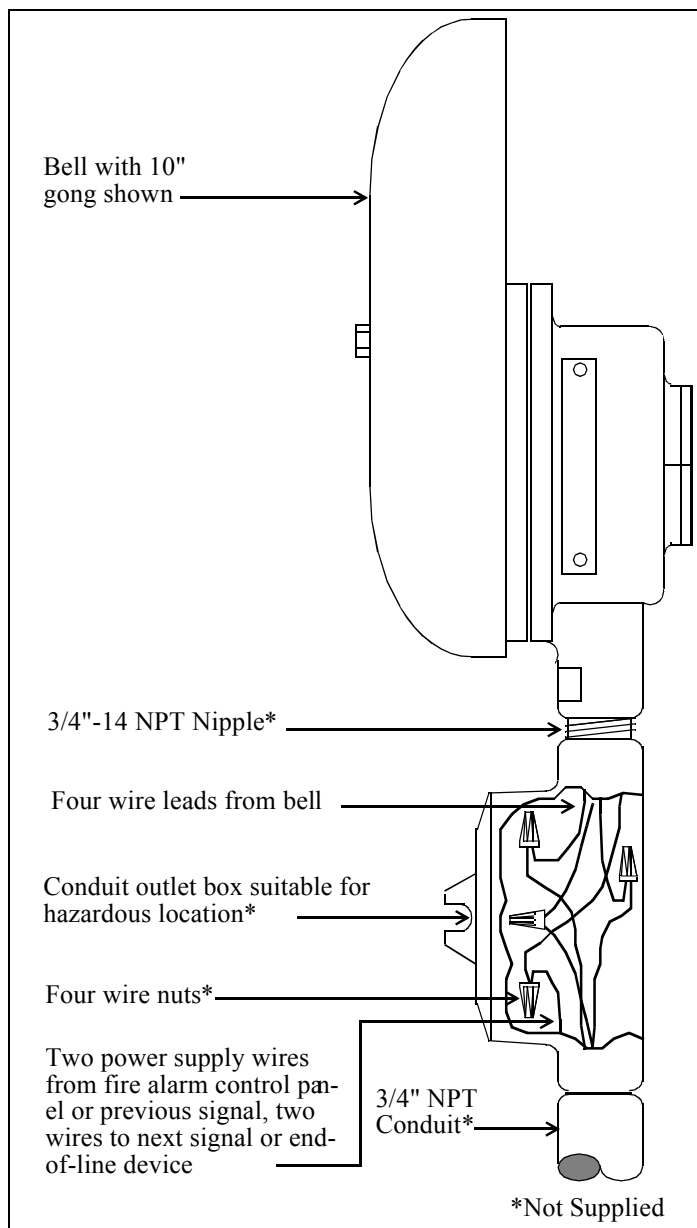


Figure 1. Details.

3. Replace the gong in its original orientation and secure.
4. Remove cover from the conduit outlet box. Feed the signaling circuit field wires through the conduit and into and out of the outlet box along with the four bell wires.

CAUTION

Make sure and break wire run to provide electrical supervision.

5. Connect the signaling circuit wires to the bell wires per the applicable wiring diagram. For 438DEX series AC bells, see Figure 3. For 439DEX series DC bells, see Figure 4. Make wire connections using wire nuts. Also, refer to the applicable installation instructions for wiring connections used in the fire alarm control panel for additional wiring connection details. Connect only two wires per wire nut at each connection. Do NOT twist wires together.
6. Replace cover on outlet box and secure.
7. Apply power to the fire alarm control panel. Initiate an alarm to activate the bell and verify that it sounds. Then reset the panel to silence the bell and return to the supervisory mode.

WARNING

This device will not operate without electrical power. As fires frequently cause power interruptions, we suggest you discuss further safeguards with your local fire protection specialist.

MAINTENANCE

Examine the bell annually for accumulation of dirt and clean when necessary.

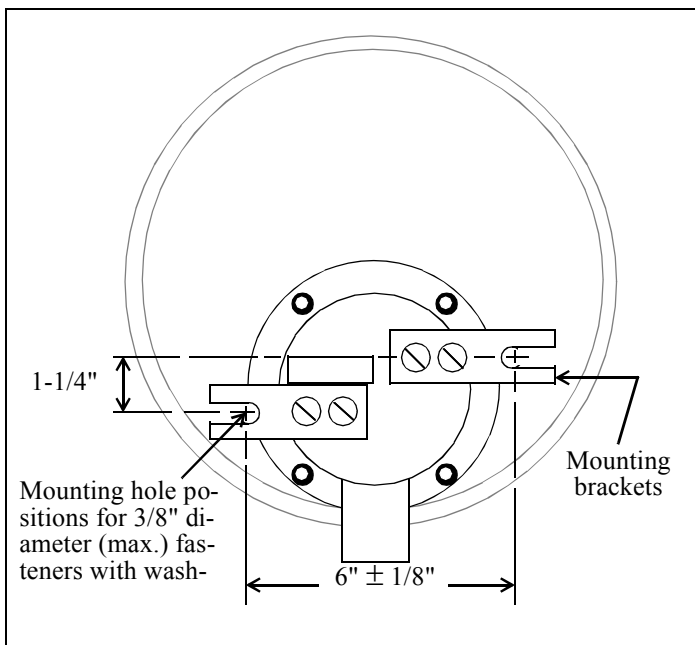


Figure 2. Mounting Dimensions.

CAUTION

To prevent ignition of hazardous atmospheres, always disconnect all power before opening the conduit outlet box, servicing, or cleaning the bell. Keep tightly closed when circuits are alive.

Always perform an operational test on this product on a regular basis after installation. Edwards suggests that this regularly scheduled testing be performed at least once a year, or more often as may be dictated by the local authority having jurisdiction.

NOTE

DC supervisory polarity shown. On alarm, voltage switches to 120Vac.

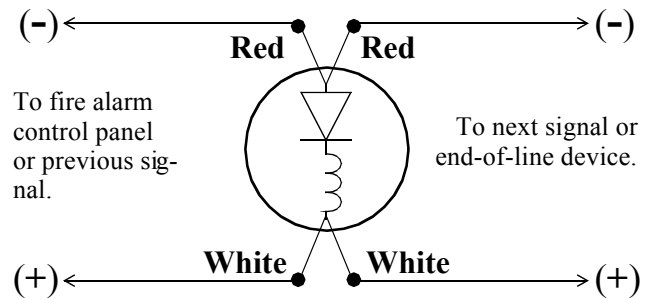


Figure 3. Wiring Diagram for Catalog Series 438DEX AC Bells.

NOTE

DC supervisory polarity shown. On alarm polarity reverses.

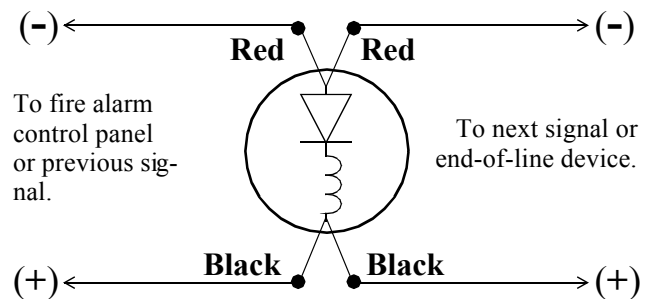


Figure 4. Wiring Diagram for Catalog Series 439DEX DC Bells.