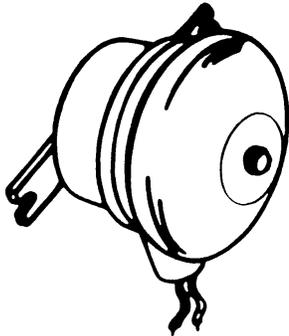


438DEX and 439DEX Fire Alarm Bells Installation Sheet



Description

Edwards' catalog series 438DEX and 439DEX fire alarm 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 of bells are AC-powered and the 439DEX are DC-powered. 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 authority having jurisdiction.

Both series of the bells are listed for installation in the following hazardous locations: Class I, Divisions 1 and 2, Groups B, C and D, Class I, Zones 1 and 2, Groups IIA and IIB, Class II, Divisions 1 and 2, Groups E, F and G and Class III, Zones 1 and 2.

Installation

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

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

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

The bell can be mounted to any solid surface.

To install the bell:

1. Refer to Figure 1 on page 2. Remove the gong support bolt, remove the gong and set it aside. Bring the bell wires through the nipple and secure the nipple onto the bell (being careful not to twist or crimp the wires). Feed the bell wires into the outlet box and secure the outlet box onto the nipple (again being careful of the wires). Secure the 3/4 in. NPT conduit onto the outlet box.
2. Place the 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.
3. Replace the gong in its original orientation and secure.
4. Remove the 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: Wire run must be broken 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 the cover on outlet box.
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.

WARNING: 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 energized.

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.

Figure 1: Wiring

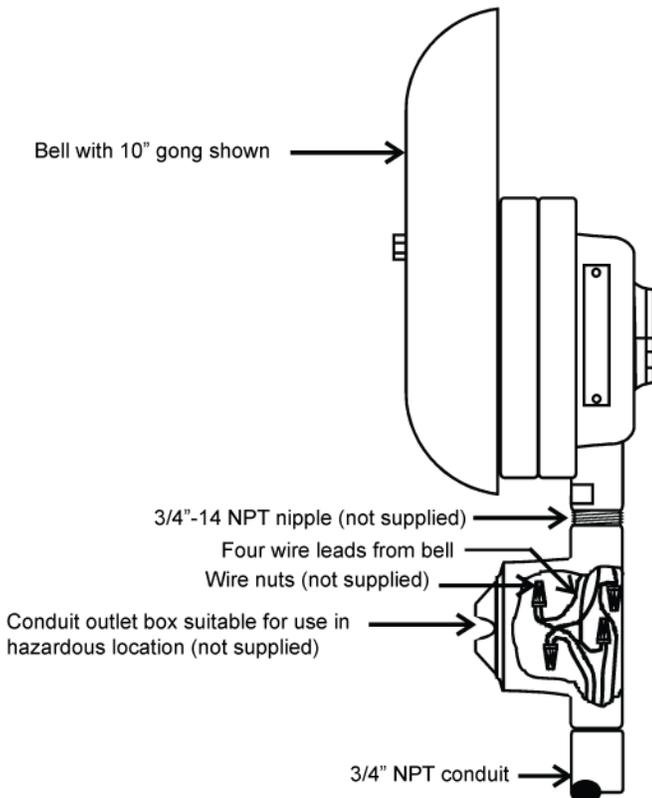


Figure 2: Mounting hole dimensions

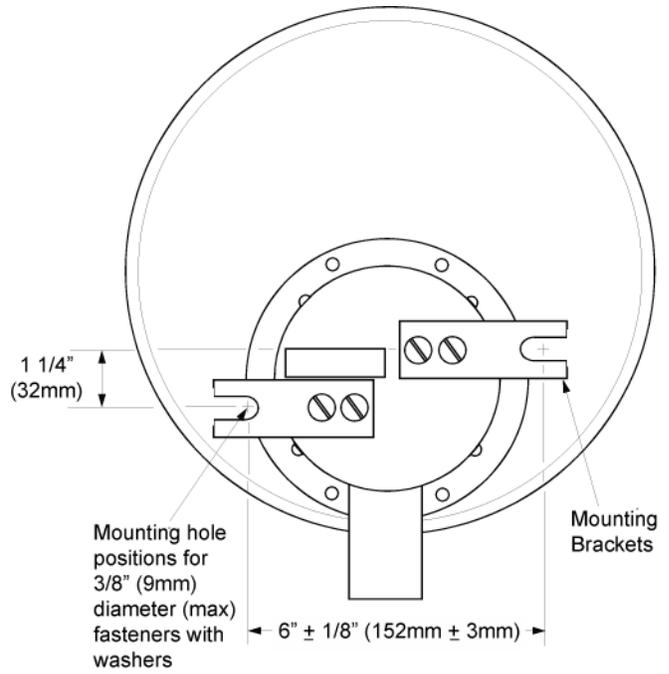
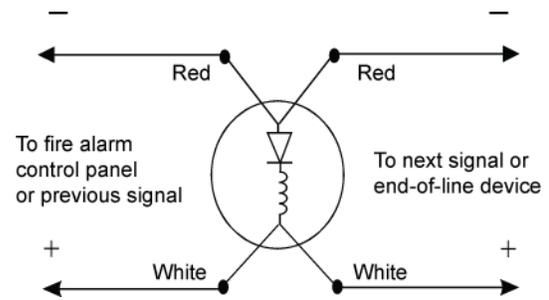
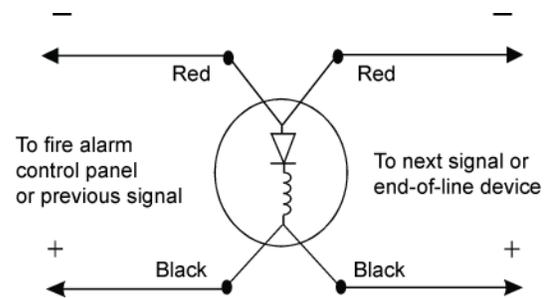


Figure 3: Wiring the 438DEX AC bells



Note: DC supervisory polarity shown. On alarm, voltage switches to 120 VAC.

Figure 4: Wiring the 439DEX DC bells



Note: DC supervisory polarity shown. On alarm, polarity reverses.

Specifications

Catalog number	Voltage	Alarm current
438DEX Series	120 VAC	0.041 A (RMS)
439DEX Series	20 to 24 VDC	0.29 A (Avg)

Table 1: Sound output

Catalog number	Gong size	dBA rating at 10 feet*
438DEX-6N5	6 in.	83
439DEX-6AW		
439DEX-6AW-R		
438DEX-8N5	8 in.	86
439DEX-8AW		
439DEX-8AW-R		
438DEX-10N5	10 in.	89
439DEX-10AW		
439DEX-10AW-R		

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

Table 2: Mechanical specifications

Catalog number	Dimensions	Weight
438DEX-6N5	7 in. (178 mm) x 5 in. (127 mm)	5-1/4 lb (2.4 kg)
439DEX-6AW		
439DEX-6AW-R		
438DEX-8N5	9 in. (229 mm) x 5 1/8 in. (130 mm)	7-lb (3.2 kg)
439DEX-8AW		
439DEX-8AW-R		
438DEX-10N5	11 in. (279 mm) x 5 1/4 in. (133 mm)	8-1/4 lb (3.8 kg)
439DEX-10AW		
439DEX-10AW-R		

Regulatory information

Manufacturer	Edwards, A Division of UTC Fire & Security Americas Corporation, Inc. 8985 Town Center Parkway, Bradenton, FL 34202, USA
North American standards	UL 464, ANSI/UL 1203

Contact information

For contact information see our Web site:
www.edwardssignaling.com

