

Detector Base 4-Wire with Integral 85dB Sounder D293S

Installation Instructions

1.0 General

The D293S is a mounting base designed for use with the D603/D604/D605 Heat Detectors, D285/D285TH Photoelectric Smoke Detectors and the D286 Ionization Smoke Detector. It contains an externally powered 85dB sounder. The D293S should be installed in accordance with NFPA 72, The National Fire Alarm Code.

Note: To ensure proper system operation, both this document and the D285/D285TH Installation Instructions (P/N: 32029) or the D286 Installation Instructions (P/N: 32035) or the D603/D604/D605 Installation Instructions (P/N: 45570) and NFPA Standard 72 should be read and understood prior to beginning the installation.

This document covers only the information necessary to mount and wire the bases. Other information is available as follows: Installation guidelines are discussed in *Technical Service Note: Installation Considerations* (P/N: 31347). Information regarding power requirements, testing, and maintenance is included in the *D285, D286, or D603/D604/D605 Installation Instructions*.

2.0 Specifications

Base Specifications

| | |
|-----------------------------|---|
| Operating Temperature Range | +32° to 100°F (0°C to +38°C) |
| Operating Voltage | 10.0 VDC to 30.0 VDC |
| Alarm Current | 48 mA @ 12 VDC 51 mA @ 24 VDC 70 mA Max. @ 30 VDC |

Sounder Power Specifications

| | |
|-------------------|--|
| Operating Voltage | 12 VDC Nominal, 10 VDC to 16 VDC Max. 24 VDC Nominal, 18 VDC to 30 VDC Max. |
| Alarm Current | 15 mA @ 12 VDC 24 mA @ 24 VDC 25 mA Max. @ 30 VDC |

3.0 Mounting

1. Select mounting locations based on the *Technical Service Note: Installation Considerations* (P/N: 31347).
2. Pre-run all system wiring.
3. Mount the base using the two oblong mounting holes.
4. Tighten the base to the mounting surface.
5. If mounting to 4 in. (10 cm) square boxes, use the adaptor plate.
 - Mount the adaptor plate to the box first (see *Figure 1*).
 - Mount the base to the adaptor plate and box using the oblong mounting holes (see *Figure 1*).

Depending on local regulations, the bases may be surface mounted using anchors, mollies, or wing nuts; or mounted directly to 4 in. (10 cm) octagonal electrical boxes and single gang switch boxes.

Note: The volume of any electrical box used should be adequate to accommodate the number and size of conductors as specified by the National Electrical Code or any local regulations having jurisdiction.

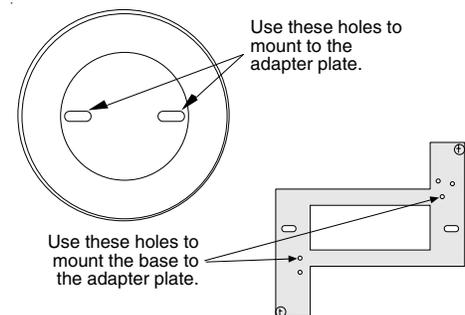


Figure 1 - Adapter plate connections

6. Review Wiring Information in *Section 4.0 Wiring Information* on page 2.
7. Connect the wiring to the bases.

4.0 Wiring Information

Terminal Connections

Do not twist wires or loop the wires around terminals. In/Out wires for terminal connection must be cut, stripped, and inserted as individual ends.

EOL Resistors

Use the EOL resistors supplied or ones specified by the control panel manufacturer. This includes use with the D275 module.

Terminal Functions: D293S

1. DC Power (+) IN
2. DC Power (+) OUT
3. Remote LED Output
4. DC Power Negative (-)
5. Alarm Loop (N/O)
6. Alarm Loop (C)
7. Sounder Power (+)
8. Sounder Power (-)

Note: 24 VDC Operation: When operating the D293S, in a 24 VDC system, the yellow jumper on each base must be cut.

D275 Power Supervision Relay (see Figure 2)

When used with 12 VDC systems, connect the red wire to terminal #2 on the last base in the run; the yellow wire remains unconnected. For 24 VDC systems, use the yellow wire; the red wire remains unconnected.

Note: One D275 per loop is required when using D293S base.

D293S Wiring (see Figure 3)

The Alarm Loop Relay (terminals 5 and 6) is a form "A" relay (C,NO) rated at 10 W, 0.5 A @ 60 VDC.

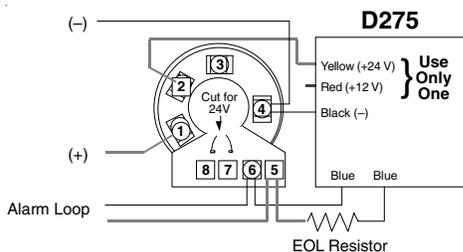


Figure 2 - D275 Wiring

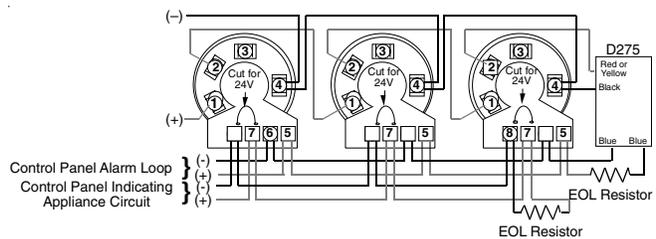


Figure 3 - D293S Wiring Configuration

Remote Alarm Indicator

Using the DRA-5 Alarm Indicator, connect the positive (red) lead to Terminal 3 and the negative lead (white) to Terminal 4.

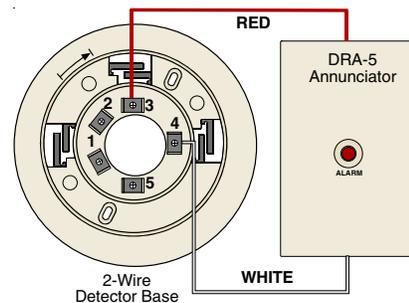


Figure 4 - DRA-5 Remote Alarm Indicator Wiring