

FDS303

Mounting and Orientation

The mounting bracket allows the detector's vertical orientation to be adjusted from 0 to 45°, and allows a horizontal rotation of +/-45°.

Figure 1: Detector Mounting Bracket & Orientation

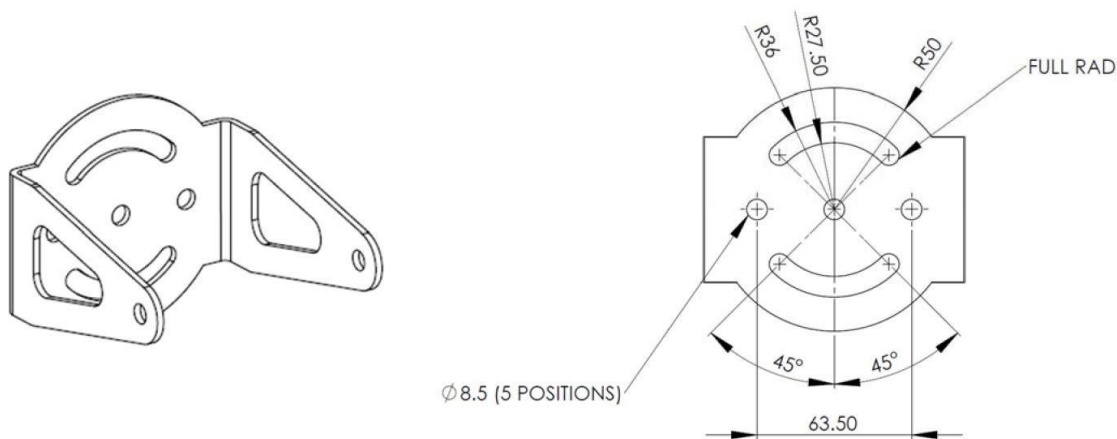
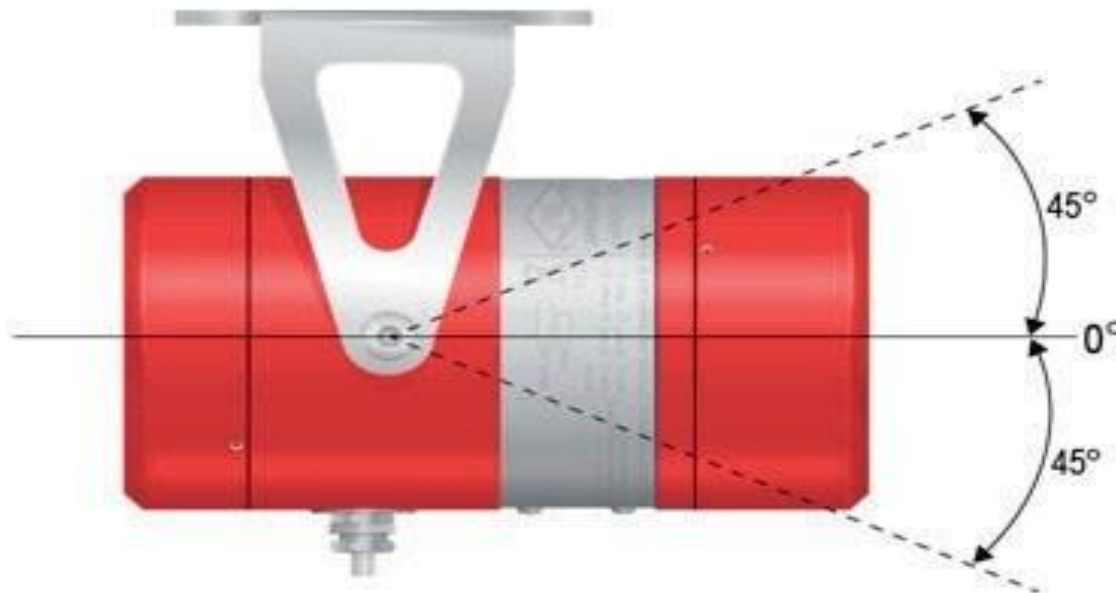


Figure 2: FDS303 Ceiling Mount



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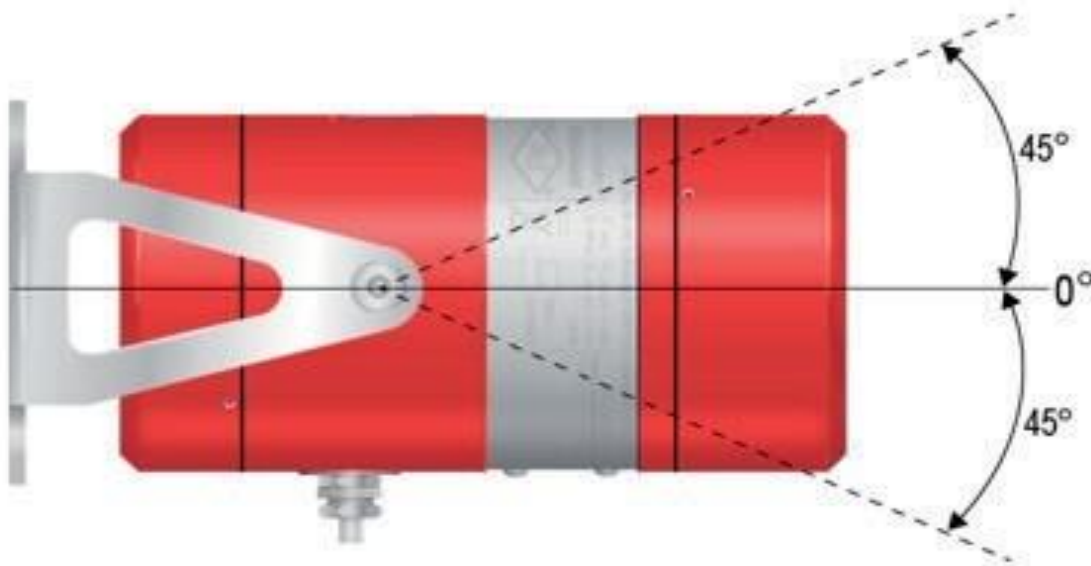
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Figure 3: Wall Mount



Firm, vibration free mountings are essential for trouble free operation of optical systems and the detector should be fixed to a rigid mounting. When mounting on a wall in this orientation allow for the cable gland and cable as this may restrict the downward rotation of the detector.

Wiring Procedure

The wiring terminals are located in the rear section of the detector enclosure and are accessible by removal of the end cap.

The front section of the enclosure should only be accessed by trained personnel.

The terminal schematic (figure 4) detailed below shows the view looking inside the detector following removal of the end cap.

Figure 4: Terminal Schematic

The detector has two types of alarm output available simultaneously

- 4-20mA (source)
- Relay (Alarm & Fault)

Listed below are wiring options dependent on the functional requirements of the detector.



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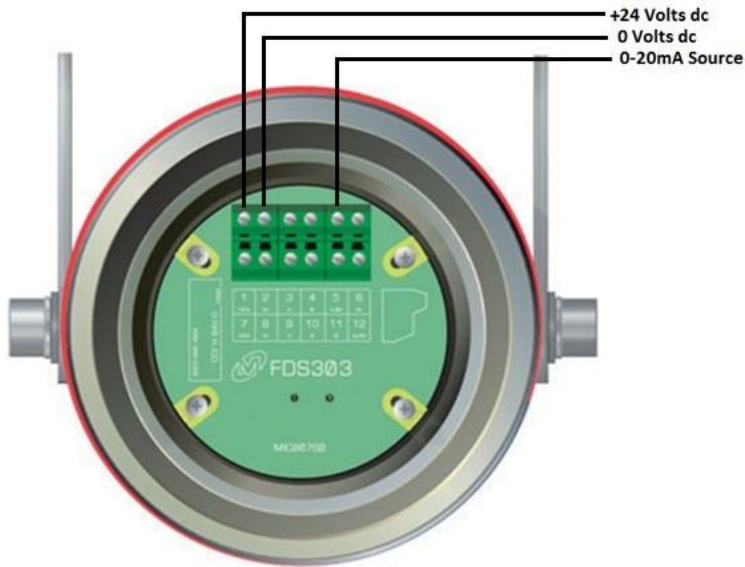


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0-20mA Output

The following wiring connection diagram shows wiring the detector when a 4-20mA output is required.

Figure 5: 3 Wire Terminations



Factory Fixed Values

Current Output	Event
0mA	Power/Detector Fault
1.5mA	Optical Fault
4mA	Healthy
18mA	Alarm
21mA	Over-range

Note:

The tolerance on above outputs is +/- 0.3 mA dc current with a maximum loop resistance of 500ohms

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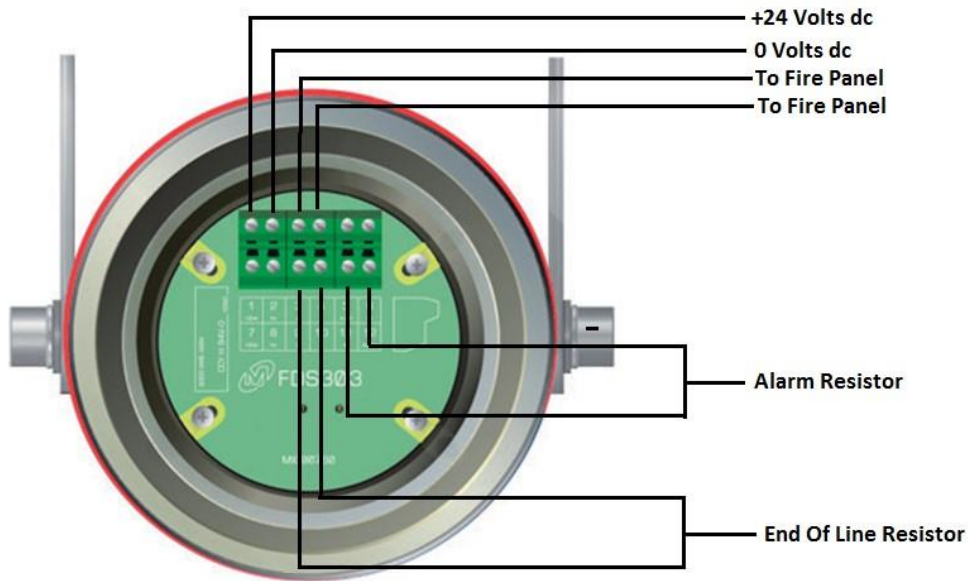


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Relay Output

The following wiring connection diagrams shows wiring the detector when a relay output is required. Reversal of polarity across terminals 1 & 2 enables Micropack RS485 communication on terminals 3 & 4. This communication protocol when used with Micropack applications allows configuration changes to the detector.

Figure 6: Relay Configuration Termination

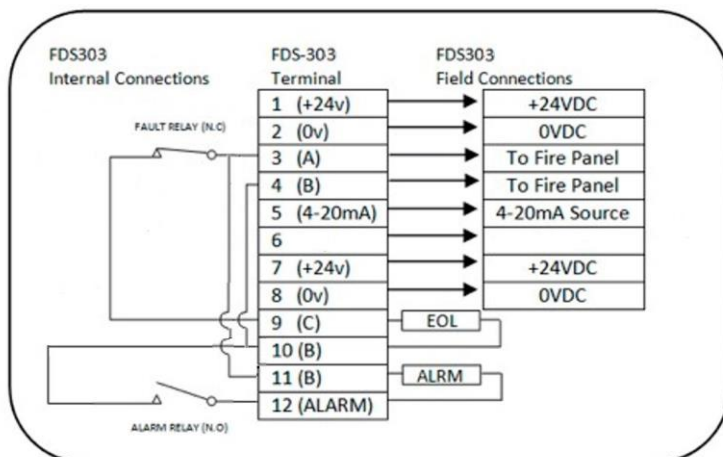


NOTE: EOL and Alarm resistors values are defined by the client and the control system/fire panel which the detectors are being integrated into.

Internal Inter-Connections

The following diagram shows the internal inter-connections of the alarm and fault relay contacts and jumpers. Each field connection is listed on this diagram for clarity.

Figure 7: FDS303 Internal Inter-connections.



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