



## Redesign of UV1A / UV2 Flame Scanners

Fireeye has redesigned the UV1A and UV2 flame scanners. The new design replaces the flexible conduit with a cable that is rated for **Tray Cable – Exposed Run (TC-ER)** and complies with the crush and impact requirements of the Standard for Metal Clad Cable, UL 1569.

The following UL standards have been revised and now allow the use of TC-ER rated cable on Commercial boilers and burners:

- UL 295: Commercial - Industrial Gas Burners – Sections 10.1.6, 10.1.9, and 11.2.2.
- UL 296: Oil Burners – Sections 31.1.8, 31.1.11, and 32.2.2.
- UL 726: Oil fired Boiler Assemblies – Sections 15.1.6, 15.1.9, and 16.1.6.
- UL 795: Commercial - Industrial Gas Heating Equipment – Section 12.5.

### Wiring Instructions:

Wire the black and red wires (18 AWG) on the UV1A / UV2 flame scanner to terminals S1 and S2 on the Fireeye flame safeguard control. **There is no polarity associated with the wire colors. Either wire (red or black) can be wired to either terminal (S1 or S2).**

### Shield and Drain Wire:

The scanner provides a shield and drain wire that are internally bonded to the metal threaded ½” NPT coupling nut. This allows a conduit clamp to provide an electrical ground around the exposed shield when entering a metal junction box or control cabinet, or connect the drain wire to a suitable ground connection when using a non-metallic (or metallic) junction box or control cabinet.

### Installation, Maintenance, and Troubleshooting:

The redesigned scanner uses the same UV tube as the original design and is suitable as a direct replacement for the original design. Follow all installation, extended wiring, maintenance, and troubleshooting instructions detailed in Bulletin SC-102.

### UV2 flame scanner:

The UV2 version of the flame scanner is fitted with a 3/8” NPT Female to ½” NPT Male adapter fitted onto the ½” threaded coupling.

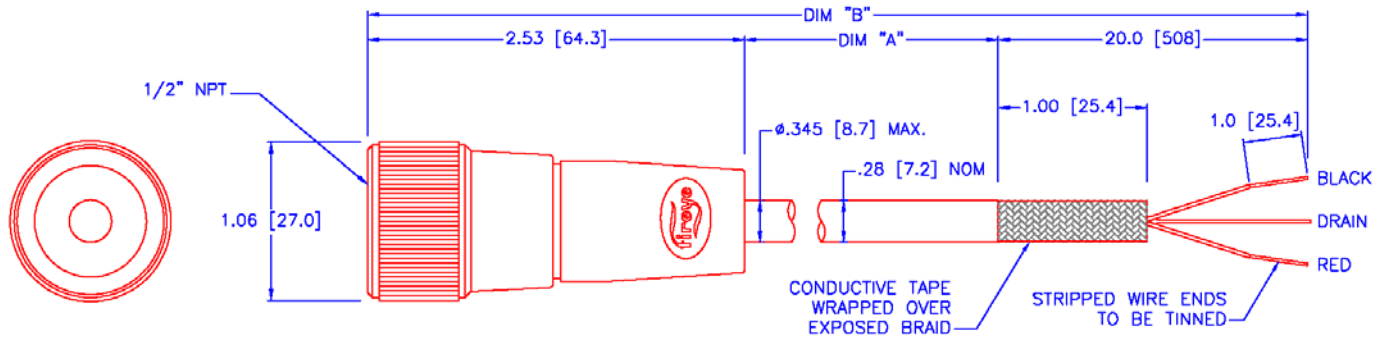
### Several points concerning the new design:

- The scanner part numbers are not being changed.
- The scanner body is molded plastic (Valox) imbedded with the Fireeye logo over a metal casing.
- Temperature rating of the scanner is -40 F (-40 C) C to 200 F (94 C).
- The scanner is rated for NEMA 4X.
- A label with the scanner part number, cable length, Agency Approvals (ULc and FM), and date code is affixed to the scanner cable.
- The scanner is available in lengths of 3 ft (1m), 6 ft (2m), 12 ft (4m), and 50 ft (16m).

## Conduit required:

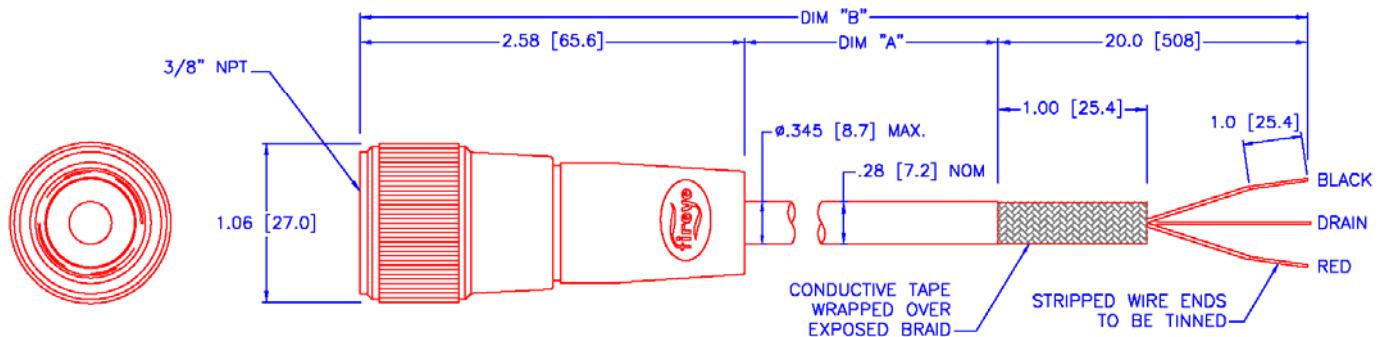
On those applications where conduit is required, Fireye recommends the Thomas and Betts 449-TB (or suitable) fitting which is used to couple 3/8" flexible metal conduit to 1/2" EMT conduit. The set screw on the fitting bites into the plastic on the UV1A / UV2 scanner and seats onto the metal casing below, providing a secure connection.

## Dimensions:



MODEL NO.	DIM "A"	DIM "B"
UV1A3	3FT (1M)	5 FT (1.5M)
UV1A6	6FT (2M)	8 FT (2.4M)
UV1A12	12 FT (4M)	14 FT (4.3M)
UV1A50	50 FT (16M)	52 FT (15.8M)

DIMENSIONS IN TABLE ARE APPROXIMATE



MODEL NO.	DIM "A"	DIM "B"
UV2	3FT (1M)	5 FT (1.5M)
UV2A6	6FT (2M)	8 FT (2.4M)

DIMENSIONS IN TABLE ARE APPROXIMATE