

*keep a **SharpEye™** on your safety*



# The 40/40 Series

## Flame Detectors and Accessories

*The latest SharpEye 40/40 Series Flame Detectors from Spectrex provide the most comprehensive protection against hydrocarbon-based fuel and gas fires, hydroxyl and hydrogen fires, as well as metal and inorganic fires. The detectors provide early warning of fires at long distances with high immunity to false alarms.*

*The latest 40/40 series are the highest performance, most cost-effective flame detectors currently on the market. New features include a stainless steel housing with a heated window, to eliminate condensation and icing; HART capabilities for digital communications; lower power requirements; and a compact, lightweight but highly durable and weather resistant design.*

*The 40/40 flame detector series is highly reliable, with a newly extended 5-year warranty period and compliance with the IEC 61508 Safety Integrity requirements of SIL2.*

*Spectrex, a leader in the flame and gas detection industry for over 15 years, provides products that are fully certified and employed around the world in a wide range of industrial and commercial facilities.*

### 40/40M

#### Multi IR Flame Detector

Detects hydrocarbon and hydrogen flames at long distances and provides the highest immunity to false alarms with its multi spectrum design. The 40/40M can detect a gasoline pan fire at 215 ft (65m), or a hydrogen flame at 100 ft (30m) in less than 5 seconds.

### 40/40I

#### Triple IR (IR3) Flame Detector

Detects hydrocarbon fuel and gas fires at long distances and provides the highest immunity to false alarms with its triple spectrum design. The IR3 can detect a 1ft<sup>2</sup> (0.1m<sup>2</sup>) gasoline pan fire at 215 ft (65m) in less than 5 seconds.

### 40/40L-LB

#### UV/IR Flame Detector

Models 40/40L (& LB) – A dual UV and IR detector, comprising an IR sensor that operates at a wavelength of 2.5-3.0  $\mu$ m and a UV solar blind sensor, the 40/40L detects hydrocarbon-based fuel and gas fires, hydroxyl and hydrogen fires, as well as metal and inorganic fires. The UV sensor has a special logic circuit that prevents false alarms from solar radiation.

### 40/40UFL

#### Ultra Fast UV/IR Flame Detector

The new SharpEye UV-IR High-Speed Optical Flame detector 40/40UFL is designed to meet two major requirements. Fast Response Time (less than 20 msec) and High Reliability (immunity to False Alarm). The 40/40UFL detects hydrocarbon-based fuel and gas fires, hydroxyl and hydrogen fires, as well as metal and inorganic fires.

### 40/40L4-L4B

#### UV/IR Flame Detector

Models 40/40L4 (& L4B) - A dual UV and IR detector, comprising an IR sensor that operates at a wavelength of 4.5  $\mu$ m and a solar blind UV sensor, the 40/40L detects only hydrocarbon-based fuel and gas fires.

### 40/40U-UB

#### UV Flame Detector

Detects hydrocarbon-based fuel and gas fires, invisible hydrogen flames and fires from hydrides, ammonia, silane and other organic materials with its unique UV solar blind sensor. The 40/40UB model includes a Built-in-Test (BIT) feature.

### 40/40R

#### Single IR Flame Detector

Detects hydrocarbon-based fuel and gas fires, comprising an IR sensor working at 4.5  $\mu$ m wavelength for maximum sensitivity and provides immunity to false alarms from IR sources such as sunlight and IR projectors.

### 40/40UFI

#### Ultra Fast IR3 Flame Detector

An Ultra-Fast multi-spectrum IR3 Flame Detector, detects hydrocarbon fuel and gas fires at long distances, and is especially designed to detect an explosive 1 ft (0.3m) diameter gas cloud explosion in max. 50 msec at 66 ft (20m) with the highest immunity to false alarms. The 40/40UFI IR3 can also detect a 1 ft<sup>2</sup> (0.1m<sup>2</sup>) gasoline/n-Heptane pan fire at up to 300 ft (90m).

## 40/40 SERIES ACCESSORIES



### Long Range Flame Simulators

Spectrex Flame Simulators will 'proof' test our flame detectors to verify reliable operation of detector, its outputs and the control system loop without the need for a real flame. No need for expensive scaffolding and other access problems – operates at distances up to 39.3ft/12m from detector when used with collimator attachment.

See *Flame Simulators data sheets* for more details

PN FS-1100 for 40/40I, 40/40UFI  
PN FS-1200 for 40/40U-UB, L-LB, L4-L4B & UFL  
PN FS-1300 for 40/40R  
PN FS-1400 for 40/40M



### Tilt Mount

The Tilt Mount is an adjustable mounting bracket to allow the detector to be oriented towards the intended fire detection area to maximize coverage.

PN 40/40-001



### Duct Mount

The Duct Mount allows flame detection in areas where high temperatures exist or in cases where the detector cannot be installed inside the area. It comprises a special duct arrangement with specific optical window to allow installation in high temperature duct applications. The mount can be used with all Spectrex 40/40 Series flame detectors.

PN 777670



### U-Bolt/Pole Mount

The U-bolt mount is available to facilitate either 2" or 3" pipe mounting.  
Material: Stainless steel

PN 789260-2 - Pipe 2" Version  
PN 789260-1 - Pipe 3" Version



### Cone Viewer

Does the detector cover the area that needs protection? Is it located correctly and does the detector's cone of vision cover the most dangerous spot? The answer - use the Laser Detection Area Coverage Pointer that designates the optical flame detector's area of coverage (cone of vision) on-site at the specific installation. This accessory enables the designer/installer to optimize detector location and its actual detection area coverage.

PN 777166



### Air Shield

The special Air Shield, developed for SharpEye optical flame detectors, allows their installation under tough environmental conditions where they may be exposed to oil vapors, sand, dust and other particulate matter.

PN 777650



### Weather Protector

The Weather Protector is designed to protect the detector from rain and snow and direct extreme temperatures from the sun.

PN 777263 Plastic (ABS conductive), red  
PN 777163 Stainless steel, red epoxy



### Mini Laptop Kit

The mini laptop, pre-loaded with Spectrex software, enables the user to re-configure settings or perform diagnostics on all Spectrex flame and gas detectors. The kit includes cable harness with RS485/USB converter. The mini laptop is programmed with maintenance winhost for all detector types

For more details, refer to manual TM777070.

PN 777820



### USB RS485 Harness Kit

The USB RS485 Harness Kit with RS485/USB converter, used with Spectrex Host software, enables the user to connect to any available PC or laptop to re-configure settings or perform diagnostics on all 40/40 series flame detectors

For more details, refer to manual TM777050.

PN 794079