

# Multi IR 불꽃 감지기

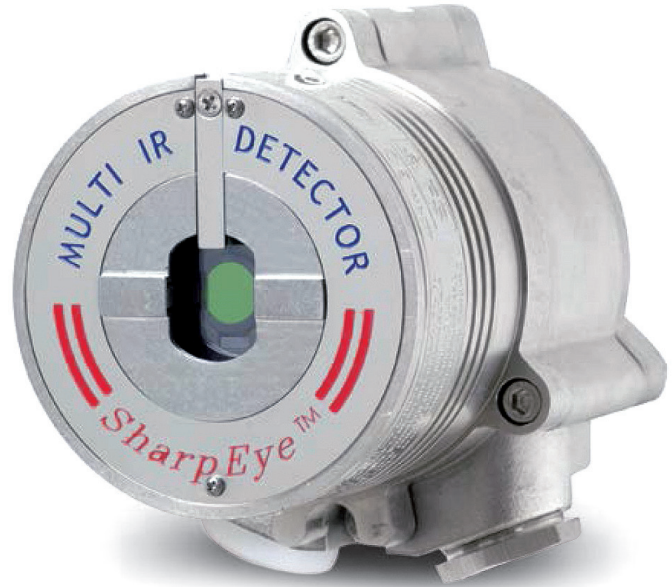
## 40/40M

### SharpEye

새로운 40/40 M 멀티 IR 불꽃 감지기는  
탄화수소와 수소 불꽃탐지를 위해 설계 되었습니다.

새로운 40/40 M 시장에서 가장 내구성이 좋은  
감지기 입니다. 강화유리, HART 통신,  
낮은 전력사용, 컴팩트한 디자인이 특징입니다.

높은 신뢰성으로 40/40시리즈는 보증기간이  
5년으로 늘어났고 SIL2인증을 받았습니다.



### FEATURES & BENEFITS

- 멀티 스펙트럼 설계 - 원거리 감지
- 오작동을 걸러냄
- 감도 선택 - 교차구간이 없음
- 강화유리 - 열악한 기상조건에서도 작동
- 내장된 수동 & 자동 테스트(BIT)
  - 안정적인 작동을 보장하기 위해 수동 & 자동 테스트가 내장됨
- 유연성과 호환성을 최대화 하기 위한 여러 출력 옵션
  - 3개의 릴레이
  - 0-20mA
  - HART 통신
  - RS-485
- 높은 신뢰성 - MTBF - 최소 150,000 시간
- Safety Integrity Level 2 인증 (SIL2 - TUV)
- 5년 사용 보증
- HART 또는 RS-485를 통한 사용자 프로그램작동 가능

### Accessories



**Simulators**  
9m까지 작동



**Tilt Mount**  
Wall Mount bracket



**Duct Mount**  
고온환경에서 사용가능



**U-Bolt/Pole Mount**  
2" ~ 3" 파이프 마운팅



**Laser Pointer**  
실제범위 최적화용



**Air shield**  
오염되기 쉬운 지역사용



**Weather Protector**  
비, 눈, 직사광선에 대한  
보호 커버

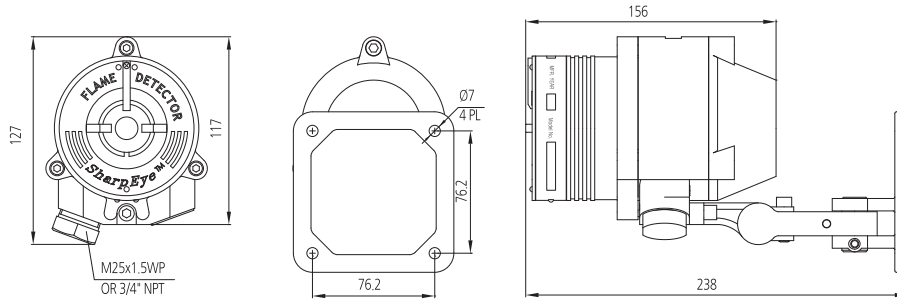


**Mini Laptop Kit**  
감지기 설정 구성  
및 진단 수행



**USB RS485 Harness**  
감지기 진단수행

## Dimension (Unit:mm)



### GENERAL SPECIFICATIONS

Spectral Response	Multi IR Bands					
Detection Range (at highest Sensitivity Setting for 1ft <sup>2</sup> (0.1m <sup>2</sup> ) pan fire)	Fuel	ft / m	Fuel	ft / m	Fuel	ft / m
	n-Heptane	215 / 65	Ethanol 95%	135 / 40	LPG *	100 / 30
	Gasoline	215 / 65	Methanol	115 / 35	Polypropylene Pellets	16 / 5
	Diesel Fuel	150 / 45	IPA (Isopropyl Alcohol)	135 / 40	Ammonia*	40 / 12
	JP5	150 / 45	Hydrogen*	100 / 30	Silane*	16 / 5
	Kerosene	150 / 45	Methane*	100 / 30	Office Paper	33 / 10
	* 20" (0.5m) high, 8" (0.2m) width plume fire					
Response Time	Typically 5 seconds					
Adjustable Time Delay	Up to 30 seconds					
Sensitivity Ranges	4 Sensitive ranges for 1 ft <sup>2</sup> (0.1m <sup>2</sup> ) n-heptane pan fire from 50 ft (15m) to 215 ft (65m)					
Field of View	Horizontal 67°; Vertical 70° for Gasoline Horizontal 80°; Vertical 80° for Hydrogen					
Built-in-Test (BIT)	Automatic (and Manual)					
Temperature Range	Operating:	-67°F to +167°F		(-55°C to +75°C)		
	Option:	-67°F to +185°F		(-55°C to +85°C)		
	Storage:	-67°F to +185°F		(-55°C to +85°C)		
Humidity	Up to 95% non-condensing (withstands up to 100% RH for short periods)					
Heated Optics	To eliminate condensation and icing on the window					

### ELECTRICAL SPECIFICATIONS

Operating Voltage	24 VDC nominal (18-32 VDC)
Power Consumption	Standby: Max. 90mA (110mA with heated window) Alarm: Max. 130mA (160mA with heated window)
Cable Entries	2 x 3/4" - 14NPT conduits or 2 x M25 x 1.5 mm ISO
Wiring	12 - 22AWG (2.5mm <sup>2</sup> - 0.3mm <sup>2</sup> )
Electrical Input Protection	According to MIL-STD-1275B
Electromagnetic Compatibility	EMI/RFI protected to EN61326-3 and EN61000-6-3
Electrical Interface	The detector includes twelve (12) terminals with five (5) wiring options (factory set)

### OUTPUTS

Relays	Alarm, Fault and Auxiliary SPST volt-free contacts rated 2A at 30 VDC
0-20mA (stepped)	Sink (source option) configuration Fault: 0 +1mA Normal: 4mA ±10% Alarm: 20mA ± 5% BIT Fault: 2mA ± 10% Warning: 16mA ± 5% Resistance Loop: 100-600Ω
HART Protocol	Optional HART communications on the 0-20mA analog current (FSK) - used for maintenance, configuration changes and asset management, available in mA source output wiring options
RS-485	RS-485 Modbus compatible communication link that can be used in computer controlled installations

### MECHANICAL SPECIFICATIONS

Materials	Stainless Steel 316L with electro polish finish	
Mounting	Stainless Steel 316L with electro polish finish	
Dimensions	Detector	4" x 4.6" x 6.18" (101.6 x 117 x 157 mm)
Weight	Detector (St.St.)	6.1 lb (2.8 kg) Tilt mount 2.2 lb (1.0 kg)
	Detector, aluminum	2.8 lb (1.3 kg)
Environmental Standards	Meets MIL-STD-810C for Humidity, Salt & Fog, Vibration, Mechanical Shock, High Temp, Low Temp	
Water and Dust	IP66 and IP67 per EN60529, NEMA 250 6P	

### APPROVALS

Hazardous Area	ATEX and IECEx	Ex II 2 GD, Ex de IIC T5 (-55°C to +75°C) Ex tD A21 IP66/X7 T 95°C	Ex de IIC T4 (-55°C to +85°C) Ex tD A21 IP66/X7 T 105°C
	FM/FMC/CSA	Class I Div. 1, Groups B, C & D Class II/III Div. 1, Groups E, F & G	
Performance	EN54-10 (VdS) FM3260		
Reliability	IEC61508 - SIL2 (TUV)		

### ACCESSORIES

Fire Simulator	20/20-313	U-Bolt/Pole Mount	789260-2 (2" pole)	Mini Laptop Kit	777820	Laser Pointer	777166
Tilt Mount	40/40-001		789260-1 (3" pole)	Weather Protector	777163	(Detector area coverage)	
Duct Mount	777670	USB RS485 Harness Kit	794079-5	Air Shield	777161		