

FlameSpec-IR3-H2

Model: FLS-IR3-H2

Triple IR Flame Detector for Energy Transition

Immunity to False Alarm

| False Alarm Source | Modulated | | Unmodulated | |
|--|-----------------------------|----------|-----------------------------|----------|
| | Distance ft. (m) | Response | Distance ft. (m) | Response |
| Sunlight, Direct, Reflected | No response at any distance | | No response at any distance | |
| Sunlight, Direct, Reflected with water droplets on sensors | No response at any distance | | No response at any distance | |
| Incandescent frosted glass light, 300W | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Fluorescent, 70W (3x23.3W) | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Electric arc | 3.0 (1.0) | No Alarm | 3.0 (1.0) | No Alarm |
| Arc welding | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Radiation heater, 1850W | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Radiation heater, 1850W with water droplets on sensors | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Quartz lamp (1000W) shielded | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Quartz lamp (500W) non-shielded | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Mercury vapor lamp 160Wx3 | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Car Exhausts | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Projector led | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Solenoid bell | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Soldering iron | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |
| Electric Drill | 2.0 (0.5) | No Alarm | 2.0 (0.5) | No Alarm |

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| | | |
|------------------------------|--|---|
| FIRE DETECTION | Detection time and distance | 40ms for fast fire burst or explosion 1.5s for 32" (0.8m) hydrogen fire at 0–66 ft. (0–20m) 4s for 32" (0.8m) hydrogen fire at 66–100 ft. (20–30m) |
| | Sensitivity range | 5 sensitivity ranges: Extreme, High, Medium, Low, Very Low |
| | Field of view (IR detection) | 90° Horizontal, 75° Vertical |
| | Time Delay | Configurable 0-30 seconds |
| | Built in Test | Automatic and Manual |
| ELECTRICAL SPECIFICATIONS | Operating Voltage | 24 VDC nominal (18-32 VDC) |
| | Current Consumption | Standby: 120mA 180mA all systems in operation (including window heater) |
| | Electrical Entries | 2x cable and conduit entries 3/4" 14NPT or M25x1.5 |
| | Wiring | 12-20AWG (2.5–0.35mm ²) |
| OUTPUTS | Relays | SPST volt-free contacts rated 2A at 30 VDC 3 relays: Alarm & Auxiliary – normally open; Fault – normally closed |
| | 0-20mA (stepped) current output | 3 wire and 4 wire (isolated) configurations (sink and source) HART® rev 7.0 |
| | Indication | Tri-color LED (Green, Yellow, Red) |
| | Modbus | RTU compatible on RS-485 |
| MECHANICAL SPECIFICATIONS | Size | 5.51 x 3.54 x 3.54" (140x90x90mm) |
| | Weight | Detector (Stainless Steel 316): 6.6 lbs. (3.0 kg) Tilt mount (Stainless Steel 316): 3.3 lbs. (1.5 kg) |
| ENVIRONMENTAL SPECIFICATIONS | Temperature Range | Operating: -67°F to +185°F (-55°C to +85°C) Storage: -67°F to +185°F (-55°C to +85°C) |
| | Humidity | Up to 99% (RH), non-condensing |
| | Ingress Protection | IP66 & 68 (2m, 24hr); NEMA 4X & 6P |
| APPROVALS | ATEX | ATEX: II 2 G D Ex db IIC T5 Gb or Ex db eb IIC T5 Gb and Ex tb IIIC T95°C Db -55°C<Ta<75°C Ex db IIC T4 Gb or Ex db eb IIC T4 Gb and Ex tb IIIC T105°C Db -55°C<Ta<85°C |
| | IECEX, INMETRO & PESO | Ex db IIC T5 Gb -50°C≤Ta≤75°C Ex db IIC T4 Gb -50°C≤Ta≤85°C |
| | FMus & FMc | Class I, Div. 1, Groups B, C & D; T4 Class I, Zone 1, AEx/Ex db IIC T4 Gb T4 -50°C≤Ta≤85°C T5 -50°C≤Ta≤75°C |
| | EAC CU TR | 1Ex d IIC T5 Gb or 1Ex de IIC T5 Gb and Ex tb IIIC T95°C Db -55°C≤Ta≤75°C 1Ex d IIC T4 Gb or 1Ex de IIC T4 Gb and Ex tb IIIC T105°C Db -55°C≤Ta≤85°C |
| | Performance | ANSI FM 3260 |
| | Functional safety | Complies to SIL2, per IEC 61508 |
| ACCESSORIES | Stainless steel weather cover, model FLS-WCO-S01 | |
| | Flame simulator, model FLS-FSIM-IR3-H2-KIT | |
| | 2" & 3" pole mount adapter, model FLS-PMA-S23 | |
| | Airshield for areas with high airborne contamination, model FLS-ASD-S01 | |
| WARRANTY | 5 years | |