HM Series Detectors Data Sheet

Delivering a totally new detector platform,
incorporating an advanced digital protocol

S200A incorporates major hardware and software technology driven developments. An advanced optical chamber design is proven in extensive testing to be more efficient, less liable to false alarm due to dust and insects and less susceptible to fault in high air velocities or back pressure.

Extensive hydrodynamic modelling has confirmed the greater efficiency of the new chamber and housing shape combination. Large-scale integration of the all-new electronics, through the fully automated surface mount PCB assembly, coupled with in-line testing through the manufacturing process, laser PCB cutting along with a completely new compound of plastic offers improved quality and reliability.

All S200EA detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements, minimising end of life disposal costs, and are mechanically and electrically backwards compatible with existing devices.

PRODUCT RANGE

The family consists of 4 detection devices: two heat detectors (58° and a rate of rise), an optical smoke, and a photo-thermal multi-sensor. All devices come with or without electrical short circuit isolation. The family of devices utilise the universal B501AP base making the installation process simple and fast.

Features & Benefits

- Available with or without short circuit isolation
- Isolator per device allows faster, more precise fault finding
- Rotary decade address switches
- Ivory colour to harmonise with the modern built environment

- Worldwide proved reliability
- Easy to maintain (washable filter)
- Enhanced smoke chamber design to reduce false alarms by dust or contamination
- Fast installation with rotatory addressable switches (01-99)
- 2 state LED for 360° indication

- Aesthetic design to harmonise with the modern built environment
- Base complements the detector and is easy to install and wire
- Genuine and fast response
- Advanced protocol and smoothing filter to suppress false alarm

- Analog addressable communication
- Dual integrated LED for 360° visibility
- Conforms to EN54-7
- LPCB approved
- Environment friendly – meets RoHS legislative requirements

SPECIFICATIONS

HM-RHSE / HM-RHSE-I / HM-FHSE / HM-FHSE-I – Thermal Sensors

The HM Series Advanced intelligent thermal sensors are plug-in type fire sensors that use a single thermistor sensing circuit to provide early warning of developing fires, together with addressable communication with the fire panel.

The HM-RHSE / HM-RHSE-I provides fixed 58°C and rate-of-rise (10°C/minute) temperature sensing (Class A1R).

The HM-FHSE / HM-FHSE-I provides fixed 58°C temperature sensing (Class A1S).

These sensors are designed for open area protection and must only be connected to fire panels that use a compatible proprietary communication protocol for monitoring and control. The detectors have two integral red LEDs that provide 360° local visual indication of the device status.

MECHANICAL SPECIFICATION	
HEIGHT	61mm installed in B501AP base
DIAMETER	102mm installed in B501AP base
WEIGHT	88g (inc base)
MAX WIRE GAUGE FOR TERMINALS	2.5mm^2
COLOUR	White
MATERIAL	PC/ABS
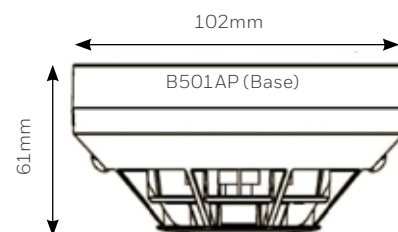
ELECTRICAL SPECIFICATIONS – NON-ISOLATED PRODUCT (HM-RHSE, HM-FHSE)	
OPERATING VOLTAGE RANGE	15 to 32Vdc
MAXIMUM STANDBY CURRENT	260µA at 24Vdc (no communications) 310µA at 24Vdc (LED blink enabled, once every 5s)
LED CURRENT	3.5mA at 24Vdc
REMOTE OUTPUT VOLTAGE	22.5Vdc @ 24Vdc
REMOTE OUTPUT CURRENT	10.8mA @ 24Vdc
ADDITIONAL LOOP RESISTANCE USING THE B501AP	typ 20mohm (max 30 mohm)

ELECTRICAL SPECIFICATIONS – ISOLATOR VERSION (ONLY FOUND IN HM-RHSE-I, HM-FHSE-I)	
OPERATING VOLTAGE RANGE	15 to 28Vdc
MAXIMUM STANDBY CURRENT	160µA at 24Vdc (no communications) 300µA at 24Vdc (LED blink enabled, once every 5s)
ISOLATION CURRENT	15mA at 24Vdc
MAXIMUM CONTINUOUS CURRENT	1A (Switch Closed)
ADDITIONAL LOOP RESISTANCE	typ 80 mohm @24V (max 170mohm @ 15V)

ENVIRONMENTAL SPECIFICATIONS	
TEMPERATURE RANGE	-30°C to +70°C [†]
HUMIDITY	10 to 93% relative humidity (non-condensing)

APPROVALS

HM-RHSE / HM-RHSE-I: EN54-5: 2000 Class A1R (and EN54-17: 2005 for -I)
HM-FHSE / HM-FHSE-I: EN54-5: 2000 Class A1S (and EN54-17: 2005 for -I)
EN54-5 states that Class A1 has a maximum application temperature of 50°C, Class B has a maximum application temperature of 65°C.

Note   † Do not install detectors in locations where normal ambient temperature exceeds 50°C

For more information:

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For further details on these or any other Morley-IAS products please contact your local distributor, Morley-IAS Business Manager or via our contact details found below.

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FIRE SYSTEMS

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