

# **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.



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

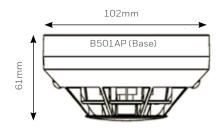
#### **SPECIFICATIONS**

#### HM-PTSE / HM-PTSE-I - Photoelectric Smoke / Thermal Multi-Criteria Fire Detectors

The S200A multi-criteria , photo, thermal detector uses thermal assistance to the core photoelectric smoke detector to give enhanced false alarm immunity and faster response to a wide range of incipient fires. The plug-in unit combines two separate sensing elements that are managed by embedded software to act as a single unit. The HM-PTSE conforms to EN54-7, a 58°C fixed temperature and rate of rise thermal assistance conforming to EN54-5. In areas where the normal daytime activities may potentially create unwanted alarms, the detector can be programmed to operate in a "heat only" mode, automatically reverting to full photo-thermal operation during unoccupied periods.

The sensing elements of the HM-PTSE are panel controllable so the sensitivity thresholds of each element can be changed offering the ability to customise the device for the changing use of the area it is protecting.

MECHANICAL SPECIFICATION		
HEIGHT	61mm installed in B501AP base	
DIAMETER	102mm installed in B501AP base	
WEIGHT	99g (inc base)	
MAX WIRE GAUGE FOR TERMINALS	2.5mm <sup>2</sup>	
COLOUR	White	
MATERIAL	PC/ABS	



	DDUCT (HM-PTSE)

OPERATING VOLTAGE RANGE	15 to 32Vdc
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MAXIMUM STANDBY CURRENT 260 µA at 24Vdc (no communications)

 $310\mu\text{A}$  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-PTSE-I)

OPERATING VOLTAGE RANGE 15 to 28Vdc

MAXIMUM STANDBY CURRENT 200 µA at 24Vdc (no communications)

 $300\mu\text{A}$  at 24Vdc ( LED blink enabled, once every 5s)

**ISOLATION CURRENT** 15mA at 24Vdc

MAXIMUM CONTINUOUS CURRENT 1A (Switch Closed)

 $\textbf{ADDITIONAL LOOP RESISTANCE} \hspace{1.5cm} typ~80~mohm~@24V~(max~170mohm~@~15V)$ 

# **ENVIRONMENTAL SPECIFICATIONS**

TEMPERATURE RANGE -30°C to +70°C +

**HUMIDITY** 10 to 93% relative humidity (non-condensing)

#### **SENSITIVITY SETTINGS**

ALARM LEVEL 1 1%/ft smoke

ALARM LEVEL 2 2%/ft smoke

ALARM LEVEL 3 3%/ft smoke

ALARM LEVEL 4 3%/ft smoke

ALARM LEVEL 5 3%/ft smoke

ALARM LEVEL 6 Class A1R

#### **APPROVALS**

Note

EN54-5:2000+A1:2002, EN54-7:2000+A1:2002+A2:2006, EN54-17:2005, CEA 4021:2003, EN54-29:2015

#### For more information:

www.morley-ias.co.uk www.partnerconnect.honeywell.com

# **Honeywell Security and Fire**

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