Honeywell Air Sampling Devices Data Sheet

Smoke detection with high sensitivity and false alarm immunity



Product Overview

Honeywell Air Sampling Devices (ASDs) are smoke detectors that actively take air samples from the monitored area and analyse them for the presence of smoke particles. They basically consist of a detection unit and the associated pipe system. The low pressure needed for air sampling is produced by a fan and airflow sensor technology ensures functionality by constantly monitoring the pipe system for breakages and obstructions.

Thanks to their outstanding reliability, sensitivity and false alarm immunity, Honeywell air sampling smoke detection systems have been the tried and tested system of choice in a wide variety of applications. Especially in areas with particular detection requirements and difficult environmental conditions, these systems, approved under EN 54-20, have shown impressive technological leadership. Honeywell has demonstrated this through a comprehensive range of project design options for all the new standard classes and set a whole new standard within the industry.

MORLEY IAS
FIRE SYSTEMS
by Honeywell

Features

Honeywell Hi-Spec ASD

Developed to serve a wide range of applications with the highest specifications.

- 3-stage alarm system and a smoke level display in bar graph form
- Optional equipping of the device with a second detector module
- One air sampling device can monitor two separate monitored areas
- Double-knock detection
- EN 54-20 compliant
- Can replace up to 64 point-type smoke detectors
- Fan operates up to 560Pa
- Pipe length of up to 560m can be achieved fulfilling EN 54-20 Class A to C requirements

Honeywell All-Spec ASD

A universal air sampling device for a broad range of applications. A high degree of modularity makes it possible to achieve a cost-effective solution, customised to suit the specific needs of the customer.

- 1 to 3 alarm levels
- Optional equipping of the device with a second detector module
- One air sampling device can monitor two separate monitored areas
- Double-knock detection
- EN54-20 compliant
- Can replace up to 64 point-type smoke detectors
- Fan operates up to 560Pa
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Honeywell Compact ASD

A cost-effective solution for monitoring small to medium-sized spaces and equipment.

- Optional ROOM·IDENT
- Monitor up to 5 rooms/facilities
- Redundant fan
- The detector box option does not have its own fan and can be used in combination with Honeywell ASD systems to localise the sampling hole where the smoke is entering
- As a fixed system FSA is approved by DIBt
- Can be used to replace up to 8 point type smoke detectors
- Up to 50m of pipe length, regardless of whether Class A, B or C is required in accordance with EN 54-20

Applications

Honeywell Hi-Spec ASD

The complete Honeywell All-Spec and Hi-Spec ASDs offer a comprehensive product range along with accessories approved in accordance with EN 54-20. This allows the devices to be used in areas where other smoke detectors and air sampling smoke detection systems have long reached their limits. These include:

- IT areas and clean rooms
- General warehouses
- High bay storage areas
- Production and assembly lines
- Wind farms
- Libraries, museums and archives
- Hospitals, hotel rooms and saunas
- Recycling areas
- Rail vehicles and tunnels
- Cold stores/freezers

Honeywell All-Spec ASD

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Honeywell Compact ASD

The compact Honeywell Compact ASD is ideal for applications where larger air sampling smoke detection systems would not be cost-effective or in situations that require individual room identification.

- Small to medium-sized spaces up to 400 m² (e.g. IT areas, server rooms)
- Equipment (e.g. switch cabinets, telecommunications equipment)
- Up to 5 adjacent rooms with localisation of the source of the fire (e.g. hotel rooms, offices, prison cells)
- Stand-alone areas of application (e.g. wind farms, transformer stations)
- Cold stores/freezers

Advantages

Honeywell Hi-Spec ASD

- Early fire detection thanks to innovative, highly sensitive HPLS light source technology
- High degree of false alarm immunity through LOGIC·SENS fire pattern recognition
- 3 alarm thresholds for a tiered alarm concept
- Smoke level display in bar graph form
- A broad range of accessories, approved to EN 54-20
- High degree of modularity for a customised, cost effective solution
- Reliable project design with just 5 mouse clicks
- Time saving commissioning through Plug & Play
- Double-knock detection to enable separate room and equipment monitoring

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Honeywell Compact ASD

- Early fire detection thanks to innovative, highly sensitive HPLS light source technology
- High degree of false alarm immunity through LOGIC·SENS fire pattern recognition
- Optional individual room detection of the source of the fire with ROOM·IDENT
- 1 to 2 alarm thresholds
- Smoke level display in bar graph form with Compact2
- Time saving commissioning through Plug & Play
- Also available without fan as detector box
- Optional with redundant fan

Electrical

Electrical	Hi-Spec		All-Spec		Compact
Operating Voltage	24 V DC (14 - 30 V DC)		24 V DC (14 - 30 V DC)		24 V DC (16 - 30 V DC)
Max. Quiescent Current (at 24 V DC)	200 (210) mA[1] and [4]	220 (240) mA[1] and [4]	200 mA[4]	230 mA[4]	105 mA[4]
Max Alarm Current (at 24 V DC)[4]	210 (220) mA[1]	240 250 mA[1]	230 mA	290 mA	110-140 mA[1]
Starting Current Limited to	300 (390) mA	320 (400) mA	300mA	330mA	150mA

Mechanical

Mechanical	Hi-Spec		All-Spec		Compact
Dimensions (W x H x D)	200 x 292 x 113mm		200 x 292 x 113mm		140 x 222 x 70mm
Weight	1460g	1560g	1460g	1560g	850 to 895g[3]
Protection Category	IP 20 (Optional IP 52)		IP 20 (Optional IP 52)		up to IP 54
Temperature Range	-20°C to + 60°C		-20°C to + 60°C		-20°C to + 60°C
Cold Storage Option	-40°C to + 60°C		-40°C to + 60°C		-40°C to + 60°C
Humidity (Permanent)	10 % to 95 % relative humidity		10 % to 95 % relative humidity		10 % to 95 % relative humidity

Sensitivity	Hi-Spec	All-Spec	Compact
Sensitivity Detector Module ASD-TT-05 (Sampling holes in accordance with EN54-20: Class A max 2x32, Class B max 2x32, Class C max 2x32)	Info-alarm: 0.17% LT/m[1] Pre-alarm: 0.3% LT/m[1] Main alarm: 0.5% LT/m		
Sensitivity Detector Module ASD-TT-01 (Sampling holes in accordance with EN 54-20: Class A max. 2 x 9, Class B max. 2 x 32, Class C max. 2 x 32	Info-alarm: 0.03% LT/m[1] Pre-alarm: 0.07% LT/m[1] Main alarm: 0.1% LT/m		
Sensitivity Detector Module ASD-TT-001 (Sampling holes in accordance with EN 54-20: Class A max. 2 x 4, Class B max. 2 x 12, Class C max. 2 x 32)	Info-alarm: 0.005% LT/m[1] Pre-alarm: 0.010% LT/m[1] Main alarm: 0.015% LT/m		
Sensitivity Detector Module ASD-TP-05 (Sampling holes in accordance with EN 54-20: Class A max. 2 x 32, Class B max. 2 x 32, Class C max. 2 x 32)		Main alarm: 0.015% LT/m	
Sensitivity Detector Module ASD-TP-01 (Sampling holes in accordance with EN 54-20: Class A max. 2 x 9, Class B max. 2 x 32, Class C max. 2 x 32)		Main alarm: 0.1% LT/m	
Sensitivity Detector Module ASD-TP-001 (Sampling holes in accordance with EN 54-20: Class A max. 2 x 4, Class B max. 2 x 12, Class C max. 2 x 32)		Main alarm: 0.5% LT/m	
Sensitivity Detection Module (Sampling holes in accordance with EN 54-20: Class A max. 2, Class B max. 6, Category C max. 8)			Pre-alarm[1]: 0.25% LT/m Main alarm: 0.50% LT/m



Notes

[1] Depending on type of device
[2] Depending on project design
[3] Depending on device configuration
[4] At standard fan voltage of 6.9 V
[5] Including ROOM·IDENT

Technical	Hi-Spec		All-Spec		Compact
No. of Detector Modules	1	2	1	2	1 or 2[5]
Max Number of Sampling Holes	32	64	32	64	8
Max Pipe Length (with max number of sampling holes)	300m	560m	300m	560m	50m
Localisation Using ROOM·IDENT					Monitoring of up to 5 rooms with localisation of the source of the fire[3]
Monitored Area per Sampling Hole	Corresponds to one point-type detector in accordance with VDE 0833-2				
Monitoring of Pipe Systems for Breakage and Obstruction	Optional adjustment for individual hole monitoring [2]				
Double-knock Detection	Possible using detector box	Yes (Separate room and equipment protection)	Possible using detector box	Yes (Separate room and equipment protection)	Possible using detector box
Alarms (potential free change-over contacts)	Up to 3 alarms per detector module (info-alarm, pre-alarm and main alarm)		3 alarms per detector module (info-alarm, pre-alarm and main alarm)		
Alarm Notification					1-2 (Pre and main alarm)[3]
Volt Free Contacts, Internal (External Optional)	3		3		2 (5)
Fault Alarms	Common alarm (1 volt-free contact per detector module, NC or NO)		Common Alarm (1 potential free contact per detector module, NC or NO)		Cumulative report (Potential free contact, either via NC or NO)
Alarm and Fault Relay Power Rating	1 A, 30 V DC, max. 24 W		1 A, 30 V DC, max. 24 W		1 A, 30 V DC, max. 24 W
Clamped Connections	Max. 1.5 mm^2		Max. 1.5mm^2		Max 2.5mm^2
Displays on the Device:					
Pre-Alarm	(Types TP-4, TP-5) 1 red alarm indicator per detector module[1]		1 red alarm indicator per detector module		1 red alarm display for each[3]
Main Alarm	(Types TP-1/a, TP-3, TP-4, TP-5) 1 red alarm indicator per detector module		1 red alarm indicator per detector module		1 red alarm display for each
Info Alarm	(Type TP-5) 1 red alarm indicator per detector module		1 red alarm indicator per detector module		
Smoke Level	10-step bar graph display				10-step bar graph display[3]
Fault	Yellow collective fault		Yellow collective fault		Yellow common fault
Operation	Green operation display		Green operation display		Green operation display
Event Log	Built-in, additional external data storage possible		Built-in, additional external data storage possible		Built-in
Connection of External Alarm Notifications	Parallel display optional		Parallel display optional		Parallel displays and ROOM·IDENT indicators optional
Redundant Fan					Built in[3]
Approved in Accordance with EN 54-20 Classes A, B, C:					
VdS-No.	G 202064		G 202064		G 206004
BPRI-No.	0786-CPD-20685		0786-CPD-20685		0786-CPD-20322

Approved EN54-4 Power Supply Units

This new range of power supplies has been specifi cally designed for Fire System Installations and features high effi ciency switch mode operation, intelligent battery charging and monitoring with remote fault signalling.

Fully compliant with EN54-4:1997 + A1:2002 & A2:2006. VdS certifi cate No: G209142

Features

Full Rated Current to Load + Additional current for battery charging

- Electronic Overload Protection

- LED Indication
  - Mains Status
  - Output Fault
  - Battery Fault
  - Charger Fault

- Volt Free Fault Output - EPS
  - Mains Fail

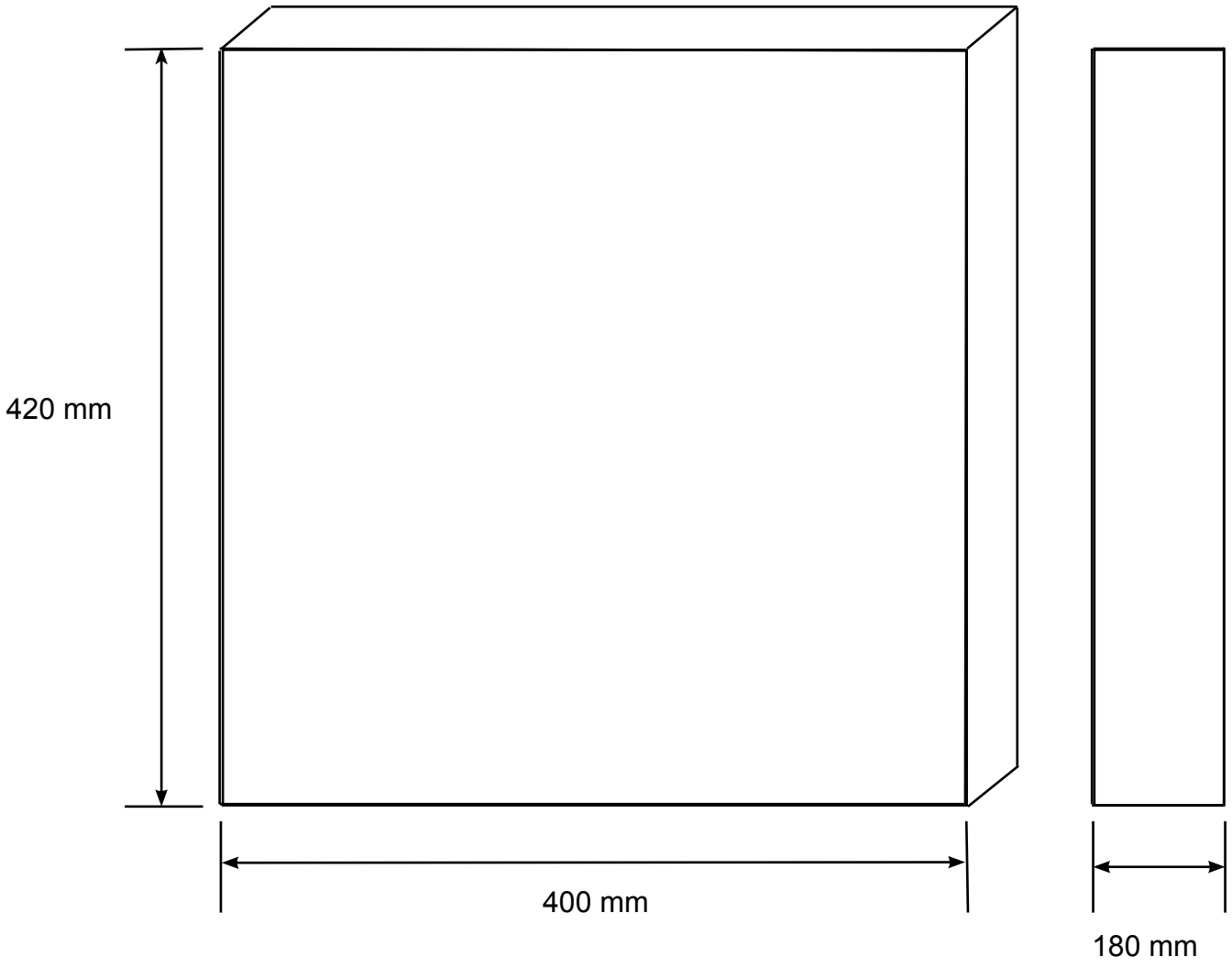
- Volt Free Fault Output – PSU Fault
  - Battery Fault
  - Charger Fault
  - Loss of Output
- Mains Transient Protection

- 2A & 5A models can house and charge 2x 18Ah batteries

- 5A model can charge up to 2 x 38Ah Batteries housed in separate Battery Box, complete with leads, available on request.

Technical

Height	420 mm
Width	400 mm
Depth	180 mm
Output (mains on)	26.0-28.0V dc nominal
Load Output	2.0, 5.0 Amp
Max Battery Supply (Batteries not supplied) 2A, 5A 5A	 2x17Ah in own enclosure Up to 2x38Ah in separate Battery Box
Mains Supply	93V ac to 264V ac @50/60Hz
Environment	-10C to 40C @95%RH
Enclosure	
All Models	420h x 400w x 80d hinge lid
Battery Box	420h x 420w x 180d hinge lid



Part Numbers

Panels

ASD-CM	Honeywell Compact ASD (Including Detector)	0.5% obscuration
ASD-CM2	Honeywell Compact2 ASD (Including 2 Detectors and ROOM·IDENT)	
ALL-SPEC1	Honeywell ALL-SPEC1 ASD	
ALL-SPEC2	Honeywell ALL-SPEC2 ASD	
ASD-TP-01	Smoke Detectors for Honeywell ALL-SPEC ASD	0.1% obscuration
ASD-TP-05	Smoke Detectors for Honeywell ALL-SPEC ASD	0.5% obscuration
ASD-TP-001	Smoke Detectors for Honeywell ALL-SPEC ASD	0.015% obscuration
HI-SPEC1	Honeywell HI-SPEC1 ASD	
HI-SPEC2	Honeywell HI-SPEC2 ASD	
ASD-TT-01	Smoke Detectors for Honeywell Hi-SPEC ASD	0.1% obscuration
ASD-TT-05	Smoke Detectors for Honeywell Hi-SPEC ASD	0.5% obscuration
ASD-TT-001	Smoke Detectors for Honeywell Hi-SPEC2 ASD	0.015% obscuration











A silent and freezer version is also available. Please contact your local business manager for further information.

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. Morley-IAS by Honeywell - Providing a control panel solution, for fire industry professionals, committed to supporting our device partners.

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