Advanced

Axis EN

Axis EN Intelligent Optical Smoke Detector

The Axis-OPX analogue Optical Smoke Detector is a point detection device that continuously monitors the air in the protected area to provide the earliest warning of a fire condition.

The enhanced design of the smoke inlet and optical chamber guarantees a very high resistance to the entry of dust, ensuring a higher level of false alarm rejection without compromising sensing performance.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-7:2018 - Smoke Detectors - Point smoke detectors
- EN54-17:2005 - Short circuit isolators
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Multiple fully approved sensitivity settings
- Bi-directional isolator to protect against cable faults
- Utilises Axis EN protocol with high noise rejection
- Dual bi-colour LEDs providing 360° cone of visibility
- Dust Restrict Chamber (DRC) technology offering advanced immunity to airborne contaminants
- Open style mounting base offers easy wiring and low pressure locking
- Addressing using the Device Programming Tool or Auto addressing capability via the fire control panel
- Magnet test capability

Specification

Loop Voltage(*)	18-40 V_{dc}
Average Standby Current	55 µA @ 24VDC
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	Max 95% RH
Dimensions H x D	49 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130 g
Colour	Custom white. Closest RAL is RAL9016.

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-OPX	Intelligent Optical Smoke Detector
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Intelligent Sounder Beacon Base
Axis-WP	Silcon Base Gasket

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Advanced

Axis EN

Axis EN Intelligent Optical Smoke Detector without isolator

The Axis-OP analogue Optical Smoke Detector is a point detection device that continuously monitors the air in the protected area to provide the earliest warning of a fire condition.

The enhanced design of the smoke inlet and optical chamber guarantees a very high resistance to the entry of dust, ensuring a higher level of false alarm rejection without compromising sensing performance.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-7:2018 - Smoke detectors - Point smoke detectors
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Multiple fully approved sensitivity settings
- Utilises Axis EN protocol with high noise rejection
- Dual single-colour LEDs providing 360° cone of visibility
- Dust Restrict Chamber (DRC) technology offering advanced immunity to airborne contaminants
- Open style mounting base offers easy wiring and low pressure locking
- Addressing using the Device Programming Tool

Specification

Loop Voltage(*)	18-40 V_{dc}
Average Standby Current	55 µA @ 24V DC
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	Max 95% RH
Dimensions H x D	49 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130 g
Colour	Custom white. Closest RAL is RAL 9016

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-OP	Intelligent Optical Smoke Detector without isolator
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Slave Sounder Beacon Base
Axis-WP	Silicon Base Gasket

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Advanced

Axis EN

Axis EN Intelligent Multicriteria Detector

The Axis-OHX intelligent Multicriteria Detector is a point detection device that continuously samples both the air and the temperature variation in the protected area to provide the earliest warning of a fire condition.

Special algorithms utilise information from both the smoke and heat sensing elements to ensure high level of false alarm rejection without compromising genuine alarm sensing performance.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-5:2017 +A1:2018
- EN54-7:2018
- EN54-17:2005
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Nine modes of operation
- Bi-directional isolator to protect against cable faults
- Utilises Axis EN protocol with high noise rejection
- Dual bi-colour LEDs providing 360° cone of visibility
- Dust Restrict Chamber (DRC) technology offering advanced immunity to airborne contaminants
- Open style mounting base offers easy wiring and low pressure locking
- Addressing and sensitivity settings using the Device Programming Tool or Auto addressing capability via the fire control panel
- Magnet test capability

Specification

Loop Voltage(*)	18-40 V_{dc}
Average Standby Current	85 µA @ 24V_{dc}
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-10°C / +55°C
Humidity (non condensing)	95% RH
Dimensions H x D	58 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130 g
Colour	Custom white. Closest RAL is RAL 9016

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-OHX	Intelligent Multicriteria Detector
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Intelligent Sounder Beacon Base
Axis-WP	Silcon Base Gasket

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Axis EN Intelligent Multicriteria Detector without isolator

The Axis-OH intelligent Multicriteria Detector is a point detection device that continuously samples both the air and the temperature variation in the protected area to provide the earliest warning of a fire condition.

Special algorithms utilise information from both the smoke and heat sensing elements to ensure high level of false alarm rejection without compromising genuine alarm sensing performance.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-5:2017 +A1:2018
- EN54-7:2018
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Nine modes of operation
- Utilises Axis EN protocol with high noise rejection
- Dual single-colour LEDs providing 360° cone of visibility
- Dust Restrict Chamber (DRC) technology offering advanced immunity to airborne contaminants
- Open style mounting base offers easy wiring and low pressure locking
- Addressing using the Device Programming Tool

Standards & Approvals

- EN 54-5: + A2: Heat Detectors
- EN 54-7: Smoke Detectors
- CEA 4021: Multisensor Detectors

Specification

Loop Voltage(*)	18-40 V_{dc}
Average Standby Current	85 µA @ 24V_{dc}
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-10°C / +55°C
Humidity (non condensing)	95% RH
Dimensions H x D	58 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130 g
Colour	Custom white. Closest RAL is RAL 9016

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-OH	Intelligent Multicriteria Detector
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Intelligent Sounder Beacon Base
Axis-WP	Silcon Base Gasket

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Axis EN Intelligent Heat Detector

The Axis-HTX intelligent Heat Detector is a point detection device that continuously samples for temperature variation in the protected area to provide the earliest warning of a fire condition in areas where traditional smoke detection products are not suitable.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-5:2017 +A1:2018
- EN54-17:2005
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Two thermal sensitivity levels: Rate of Rise (A1R) and Class BS
- Bi-directional isolator to protect against cable faults
- Utilises Axis EN protocol with high noise rejection
- Dual bi-colour LEDs providing 360° cone of visibility
- Open style mounting base offers easy wiring and low pressure locking
- Addressing and sensitivity settings using the Device Programming Tool or Auto addressing capability via the fire control panel
- Magnet test capability

Specification

Loop Voltage(*)	18V - 40V
Average Standby Current	45 µA @ 24VDC
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Dimensions H x D	60 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130g
Colour	Custom white. Closest RAL is RAL9016

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-HTX	Intelligent Heat Detector
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Intelligent Sounder Beacon Base
Axis-WP	Silcon Base Gasket

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Advanced

Axis EN

Axis EN Intelligent Heat Detector without isolator

The Axis-HT intelligent Heat Detector is a point detection device that continuously samples for temperature variation in the protected area to provide the earliest warning of a fire condition in areas where traditional smoke detection products are not suitable.

This detector is characterised by an aesthetically pleasing low profile and is specifically designed for Axis EN control panels.



Standards and Approvals

- EN54-5:2017 +A1:2018
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Two thermal sensitivity levels: Rate of Rise (A1R) and Class BS
- Utilises Axis EN protocol with high noise rejection
- Dual single-colour LEDs providing 360° cone of visibility
- Open style mounting base offers easy wiring and low pressure locking
- Addressing and sensitivity settings using the Device Programming Tool

Specification

Loop Voltage(*)	18-40 V_{dc}
Average Standby Current	45µA @ 24VDC
Remote Output Max Current	20 mA
Max number of loop addresses	240
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Dimensions H x D	60 x 100 mm
IP Rating	IP40 (IP42 with silicon base gasket)
Weight (Standard Base included)	130 g
Colour	Custom white. Closest RAL is RAL 9016

(*) Product operates down to 15 V, but without LED indication.

Order Codes and Options

Axis-HT	Intelligent Heat Detector
Axis-MB	Base
Axis-SAMB	Slave Sounder Base
Axis-SVAMB	Slave Sounder Beacon Base
Axis-SMB	Intelligent Sounder Base
Axis-SVMB	Intelligent Sounder Beacon Base
Axis-WP	Silcon Base Gasket

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Axis EN Mounting Base

This standard intelligent detector low profile mounting base has been designed for use with any of the Axis intelligent detector range.

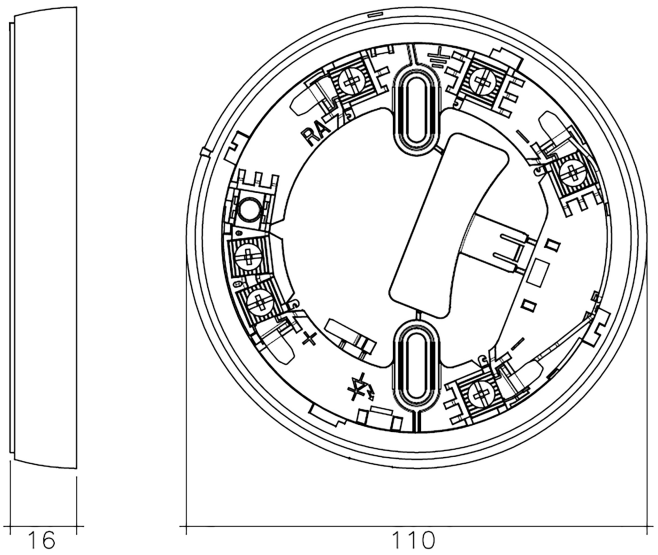
The base's layout allows plenty of space for cable access and has multiple mounting-hole positions for use with a variety of back boxes. The unit has terminations for loop wiring, remote indicator connection and termination of shield cabling. When no device is fitted into the base, an automatic spring connection maintains loop continuity ready for loop cable testing.

Once the device is refitted the spring is displaced, allowing the loop isolators to operate.



Features

- High reliability
- Device locking capability
- Easy central cable entry
- Integral device identification tab
- Remote indicator connections
- Built-in continuity spring



Specification

Dimensions (W x D)	110 x 16 mm
Operating temperature range (no icing)	-10°C to +55°C
Maximum humidity (non condensing)	95% RH
Weight	50 g

Order Codes and Options

Axis-MB	Axis Mounting Base

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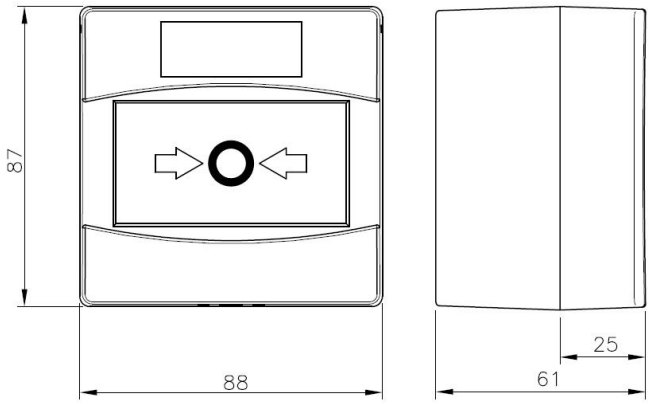
Axis EN Manual Call Point

The Axis EN Manual Call Point is compatible with all fire control panels utilising a fully digital Axis EN protocol.

The call point is smooth and quick to install thanks to the easy wiring design and the front operating element that snaps into place requiring no additional tools.

The call point benefits from improved levels of visibility thanks to a reflective polyester flag at the bottom of the operating face and a brightly illuminated LED ring in the centre of the active area which allows the alarm condition to be viewed over a wide angle of 170 degrees. The alarm flag indicator can be easily reset using the call point key provided, making the call point ready for immediate re-use.





Features

- Fully compatible with the Axis EN range
- Digital communications protocol
- Built-in short circuit isolator
- High visibility of the alarm condition through LED indication
- Resettable operating element
- Waterproof variant available
- Optional protective cover
- Yellow variant available (please note yellow variant is not EN54-11 compliant)
- 3 years standard product warranty

Standards and approvals

- EN54-11 manual call points
- EN54-17 short circuit isolators
- DoP: ACP

Specification

Loop voltage range	18 to 40 Vdc
Average standby current	35 µA @24 Vdc
LED Current Consumption	6mA @24 Vdc
Dimensions (H x W x D)	87 mm x 88 mm x 61 mm
Weight	160 g
Temperature range	-10°C to +55°C
Max tolerated humidity (non condensing)	93% RH
IP rating	42

Order Codes and Options

Axis-CP	Axis EN Intelligent Manual Call Point (RED)
Axis-CP/Y	Axis EN Intelligent Manual Call Point (Yellow)
Axis-CPCI	Transparent Cover for Axis-CP (no text)
Axis-CPKEY	Spare Reset Key for Axis EN Call Point
Axis-CPFMP	Wall Flush Mount Plate with external Frame (RED) for Axis-CP

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Axis EN Waterproof Manual Call Point

The Axis EN Waterproof Manual Call Point has been designed to withstand difficult environmental conditions such as rain, high humidity or dust.

It combines the features of the standard call point with a rugged weather-sealed moulded enclosure, providing optimum performance even in harsh conditions (IP67 sealed). It is compatible with all fire control panels utilising the Axis EN fully digital communication protocol. The innovative light pipe design allows the alarm condition to be viewed over a wide angle (170 degrees).

The extended housing with symmetrical fixings on the front face of the unit contributes to its physical protection and reliable operation. The rear surface mount box is designed for a simple installation, providing a selection of securing positions together with a choice of cable entries.



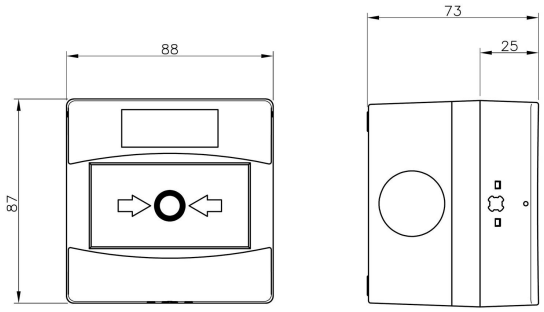
Features

- Waterproof operation
- Fully compatible with the Axis EN range
- Digital communications protocol
- Built-in short circuit isolator
- High visibility of the alarm condition through LED indication
- Resettable operating element
- Optional protective cover
- 3 years standard product warranty

Standards and approvals

- EN54-11: Manual call points
- EN54-17: Short circuit isolators
- DoP: AWCP

Dimensions



Specification

Loop voltage range	18 to 40 Vdc
Average standby current	35µA @ 24 Vdc
Dimensions of device (H x W x D)	87 mm x 88 mm x 73 mm
Weight	230 g
Temperature range	-10°C to +55°C
IP Rating	67
Max tolerated humidity (non-condensing)	95% RH

Order Codes and Options

Axis-WCP	Axis EN Waterproof Call Point
Axis-CPCI	Transparent Cover for Axis-CP (no text)
Axis-CPKEY	Spare Reset Key for Axis EN Call Point

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Axis EN

Weatherproof Callpoint Housing

The Axis EN Weatherproof Call Point Housing is a tough protective cover that can be installed with all of the wireless or wired call points from the Axis EN product range.

The hinged polycarbonate housing upgrades any Axis EN call point to a weather-proof rated device, and has been designed and engineered to provide outstanding protection from environmental conditions, vandalism, accidental damage or misuse.

This tough yet aesthetically pleasing cover can be used in a wide variety of applications including off-shore projects, the food and beverage industry, swimming pools and leisure centres, and underground installations. It is also suitable for retrofits and is available with an optional battery powered 90dB tamper alarm.



Features

- Easy and fast installation
- Optional 90 dB tamper alarm
- Breakseal to increase visible deterrent from misuse
- Spacers for surface and flush installations
- Reduces unwanted alarms
- Provides environmental and mechanical protection
- Simple retro-fit to existing installations
- Suitable for all Axis EN call points
- Weatherproof to IP65

Standards and approvals

- EN 60529:1992+A2:2013: IPX5 Water Ingress

Specification

Tamper alarm level	90 dB
Housing material	Polycarbonate
Tamper alarm battery life	3 years
Weight	426 g
Dimensions	190 x 119 x 80 mm

Order Codes and Options

WHCP-BBR	Weatherproof call point housing
RP-RD2-01	Resettable Manual Callpoint
STI-RP-K	Reset Key

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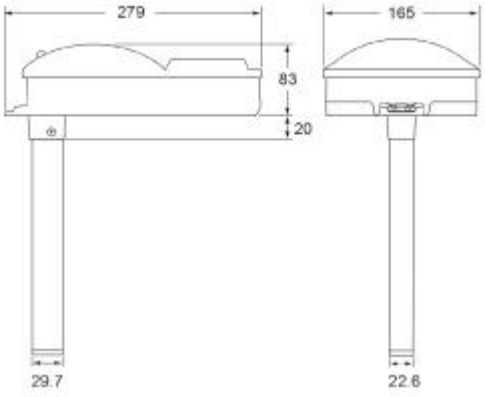
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Axis EN Duct Detector

The Axis EN Duct Detector (Axis-DDH/OPX) is designed for monitoring of airflow in heating and ventilation ducts for fire combustion products.

The Duct Detector is fitted with an smoke detector and must be linked to an AxisEN control panel and a suitable sampling tube. Axis-DDH/OPX has been designed to allow optimum airflow through the detector and it is recommended for installations in ducts with low airflow and an air speed between 0.5 m/s and 20 m/s.





Features

- Easy to install
- Single tube air sampling system
- Simple servicing and maintenance
- Installer friendly cabling
- Sampling tube with innovative design
- Easy mounting of sampling tube
- Test hole positioned on the cover
- Pre-installed detector - Axis-OPX
- Sampling tube supplied in three lengths, 0.6m, 1.5m and 2.8m
- If the ventilation duct is wider than 0.6m the sampling tube should penetrate the whole duct.

Specification

Airflow Speeds	0.5 m/s to 20 m/s
Dimensions	279 mm X 165 mm X 83 mm (plus 20mm pipe entry)
Standby Current	500uA @ 24 Vdc
Weight	660g (without the detector installed)
Operating Temperature	-10ºC to +55ºC
Max Humidity (non condensing)	95% RH

Order Codes and Options

Axis-DDH/OPX	Duct Smoke Detector
DDH-STO.6	Air Sampling Tube 0.6m
DDH-ST1.5	Air Sampling Tube 1.5m
DDH-ST2.8	Air Sampling Tube 2.8m
20-DDH-BR-ADV	Mounting bracket (for insulated/circular ducts)

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Axis EN

Fireray 5000 Beam Detector

The FIRERAY 5000 motorised reflective, auto aligning infrared optical beam smoke detector can be installed with up to two detector heads per system, thus saving on installation time and costs. In addition, each system controller houses two pairs of fire and fault relays, one per detector. This innovative system has been designed from the ground up to include pioneering technology that fully addresses the needs of the installer and user, both now and in the future.

With its industry leading optics, the 5000 is ideally suited for the protection of large areas where the use of traditional detection technologies would prove to be too difficult and/or costly to install.

The 5000 combines an infrared transmitter and receiver in the same discrete unit and operates by projecting a well-defined beam to a reflective prism, which returns the beam to the receiver for analysis. Smoke in the beam path causes a drop.



Approvals

- Approved to EN54-12 and UL268

Features

- Allows for 2 Detectors per System Controller
- Each Detector configurable from 8m to 100m
- Separate Fire and Fault relays per Detector
- Building Movement and Contamination Compensation
- Building Movement and Contamination
- 20mm Cable Gland Knockouts on System Controller
- Integral LASER alignment
- Low Level System Controller

Specification

Parameter	Min.	Typ.	Max.	Unit
Operating Voltage (to System Controller)	14	-	36	VDC
Operating Current (constant) - with 1 detector	5	5.5	6	mA
Operating Current (constant) - with 2 detectors	7.5	8	8.5	mA
Operating Current (constant) - alignment modes, with 1 or 2 detectors	35	36	37	mA
Response Threshold/ Sensitivity (Default 35%)	0.45 10	- -	3.98 60	dB %
Delay to Alarm – user settable (Default 10 sec)	2	-	30	sec
Delay to Fault – user settable (Default 10 sec)	2	-	30	sec
Operating distance (separation) *	8	-	100	m
Maximum angular alignment of detector	-	-	+/-3.5	Deg
Optical wavelength		850		nm
Fault level/ Rapid obscuration (2 sec)	-	-	87	%
Operating temperature	-10	-	+55	Deg C

Storage temperature	-40	-	+85	Deg C
Relative humidity (non condensing)	-	-	93	%
IP rating		54		-
Contact Voltage - Fire & Fault relays (VFCO)	0.1	-	36	VDC
Contact Current - Fire & Fault relays (VFCO)	0.1	-	100	mA
Cable length - System Controller to Detector (2 core)	-	-	100	m
Cable gauge	24	-	14	AWG
	0.5	-	1.6	mm
Housing flammability rating	UL94V0			
CPD Reference	0832-CPD-0565			
UL File	S3417			

Dimensions and Weight	Width(mm)	Height (mm)	Depth (mm)	Weight (kg)
System Controller, including base:	202	230	87	1.0
Detector, including ‘easy fit’ base:	134	131	134	0.5
Reflector:	100	100	10	0.1

Operation

Getting the system operational is simplified by a number of groundbreaking features that combine to make the 5000 the quickest and easiest detector of its type to install.Each detector takes under 5 minutes to fully align. A full range of installation accessories are available including the newAdjustment Bracket,which allows a greater degree of flexibility during installation.

Once the detector heads are connected,using the First Fix system,an integral LASER can be activated.This allows the reflective prism to be positioned quickly and with confidence. Once the LASER has been used to coarsely align the beam, Auto- Align takes over and automatically steers the beam into the optimum position.During alignment the system automatically switches to high current mode and drops back to low current mode when in normal operation,however,alignment is still possible in low current mode.

Mounting Instructions

Please refer to our User Guide (UG) for mounting and wiring instructions.The installation of the infrared optical beam smoke detector should be undertaken in accordance with recognised national or international standards and codes of practice.

Specifications and wiring information are provided for information only and are believed to be accurate. Advanced assumes no responsibility for their use. Data and design are subject to change without notice. Installation and wiring instructions are shipped with the products and should always be used for actual installation. For more information,contact your Sales Representative.

Order Codes and Options

08-5000-101	FIRERAY 5000 System (50m)
08-5000-102	FIRERAY 5000 System (100m)
08-5000-002	FIRERAY 5000 Single Detector pack (50m)
08-5000-039	FIRERAY 5000 Single Detector pack (100m)
08-5000-005	FIRERAY 5000 Prism Wall Bracket (for detector head or prism plate)
08-5000-008	FIRERAY 5000 Prism Plate for single prism (not included)

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Advanced

Axis EN

Fireray IR³ Flame Sensor

The sensor responds to low-frequency (1 to 15 Hz) flickering IR radiation emitted from flames during combustion.

IR flame flicker techniques enable the sensor to operate through a layer of oil, dust, water vapour, or ice.

Most IR flame sensors respond to 4.3µm light, emitted by hydrocarbon flames. By responding to 1.0 to 2.7µm light emissions from fires almost all flickering flames can be detected. Gas fires not visible to the naked eye e.g. hydrogen may also be detected.

The triple IR photoelectric detectors (IR³), responding to neighbouring IR wavelengths, enable it to discriminate between flames and spurious sources of IR radiation.

The combination of filters and signal processing allows the sensor to be used with a very low risk of false alarms in difficult situations characterised by factors such as flickering sunlight.

The sensor responds to varying sizes of flame at given distances. The further away the flame is from the sensor the larger the fire has to be, with detection beyond 50m becoming unpredictable. An n-heptane flame with a base area of 0.1m² will be detected on the sensor centre line at 25m, with the sensitivity set high for class 1 performance.

If the sensitivity switch were set to low, for class 3 performance, the same 0.1m² flame would be detected at 12m.



Features

- Class 1 Sensitivity to EN54-10 Detects 0.1m² fire @ 25m
- Excellent Optical Interference Immunity
- Selectable Output Options Conventional 2 wire 4-20mA Latching or Non-latching Relay Contacts; Fire/Fault, Pre-alarm
- Selectable Response Speed
- Optical Self Test
- Low Power Consumption
- LPCB & CPD Approved to EN54-10

Specification

Housing Material:	Die Cast Zinc Alloy (ZA12)
Housing Colour:	Blue
Dimensions (W, H, D)	108mm x 74mm x 82mm
Weight:	2kg
Cable Gland Entries:	2 x 20mm
Supply Voltage:	14 to 30Vdc
Supply Current:	See DIL switch settings
Power Up Time:	2 seconds max.
Test Signal Voltage:	14 to 30Vdc
Relay Contact Ratings: Current Voltage Resistive Loads Only Power	 1.0Amp. Max. 50Vdc. Max. 30W Max.
Range: - Class 1 (Sensitivity Setting - Class 3 see EN54-10)	0.1m² n-heptane at 25m 0.1m² n-heptane at 12m
Field of View:	90° min. Cone
Operating Wavelength Band: IR	 0.75 to 2.7µm
Sensitivity: (See note 2)	High = Class 1 Low = Class 3
Operating Temperature:	- 10°C to +55°C
Storage Temperature:	- 20°C to +65°C
Relative Humidity:	95% Non condensing
IP Rating:	IP65
EMC Immunity / Emissions:	EN61000-6-1, EN61000-6-2 EN61000-6-3, EN61000-6-4 EN 50130-4, EN 55022
Approval:	EN54-10 729a/01
CPD Certificate No:	0832-CPD-0595

Order Codes and Options

08-016589:	IR³ FLAME SENSOR
08-007127:	STAINLESS STEEL ADJUSTABLE MOUNT
08-012545:	STAINLESS STEEL WEATHER SHIELD

Electrical Connections

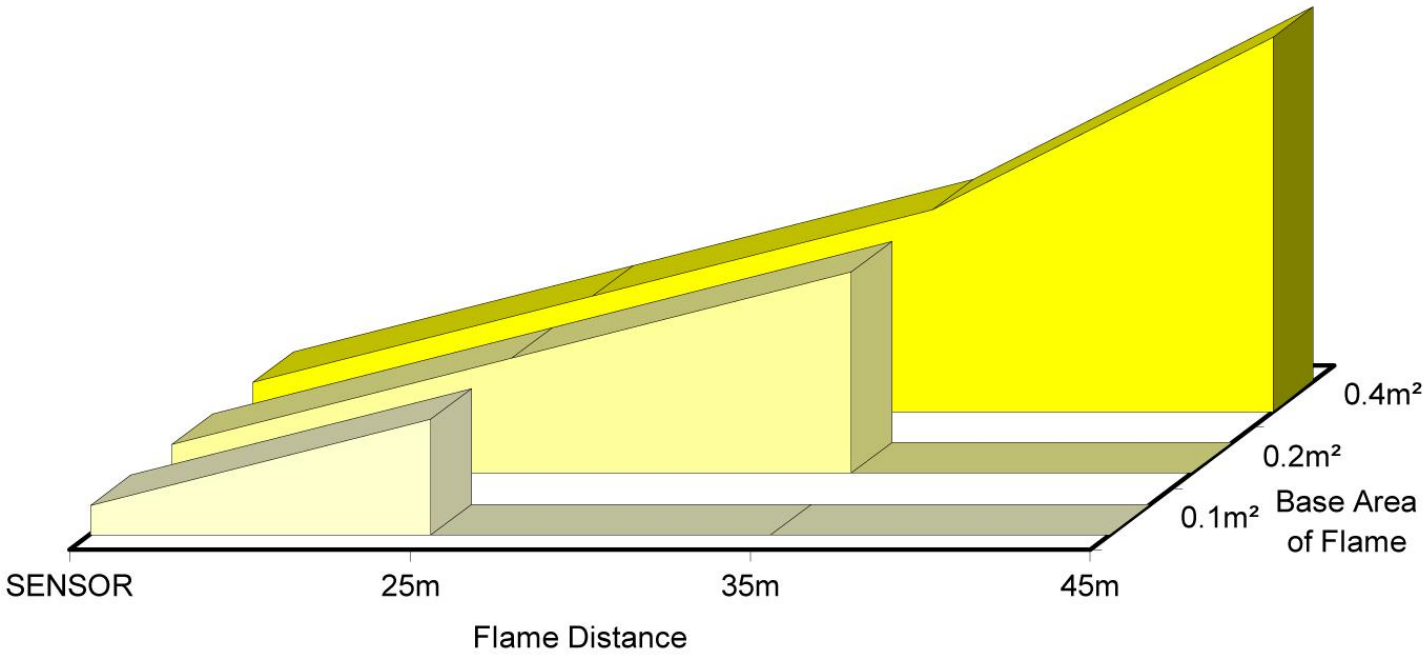
The sensor can be connected to a two-wire circuit supplying 14V to 30V dc. The sensor is connected to the supply via terminals 1(+IN) and 2(-IN) under the front terminal cover. Connections to the sensor are polarity sensitive.

A remote sensor optical test input is available on terminals 3(+R) for +IN and 4(-R) 0V. When a 14V to 30V dc supply is applied to this input IR test sources activate within the sensor and a flame-detected state will be outputted. See Fig. 1.

Flame Detection Characteristics

The sensor responds to varying sizes of flame at given distances. The further away the flame is from the sensor the larger the fire has to be, with detection beyond 50m becoming unpredictable. An n-heptane flame with a base area of 0.1m² will be detected on the sensor centre line at 25m, with the sensitivity set high for class 1 performance.

If the sensitivity switch were set to low, for class 3 performance, the same 0.1m² flame would be detected at 12m.



To meet the requirements of EN54:10 clause 5.1.2, all testing has been performed at the highest sensitivity (class1) setting.
The polar diagram shows that the sensor sensitivity is at its greatest along the central axis. The variation in relative range against viewing angle is show as a percentage of peak performance. The diagram is a section through the sensors conical field of view.

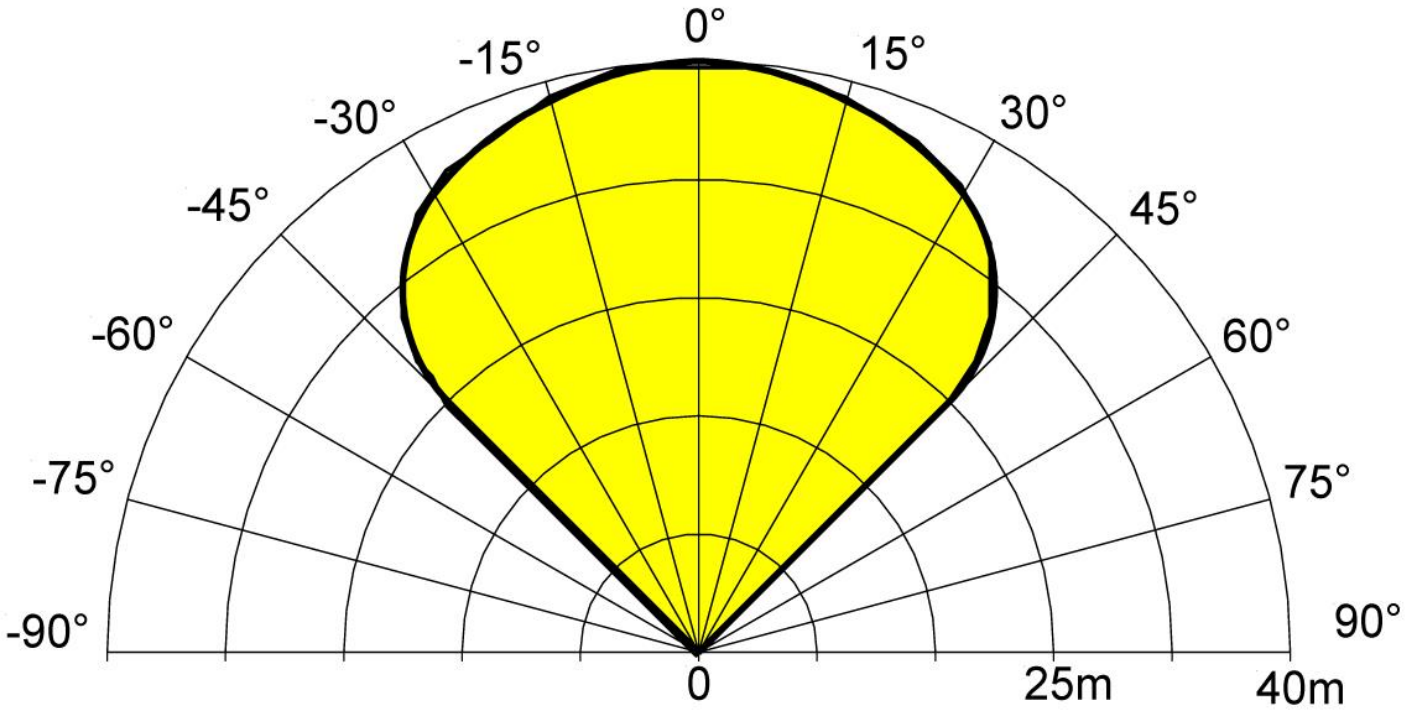


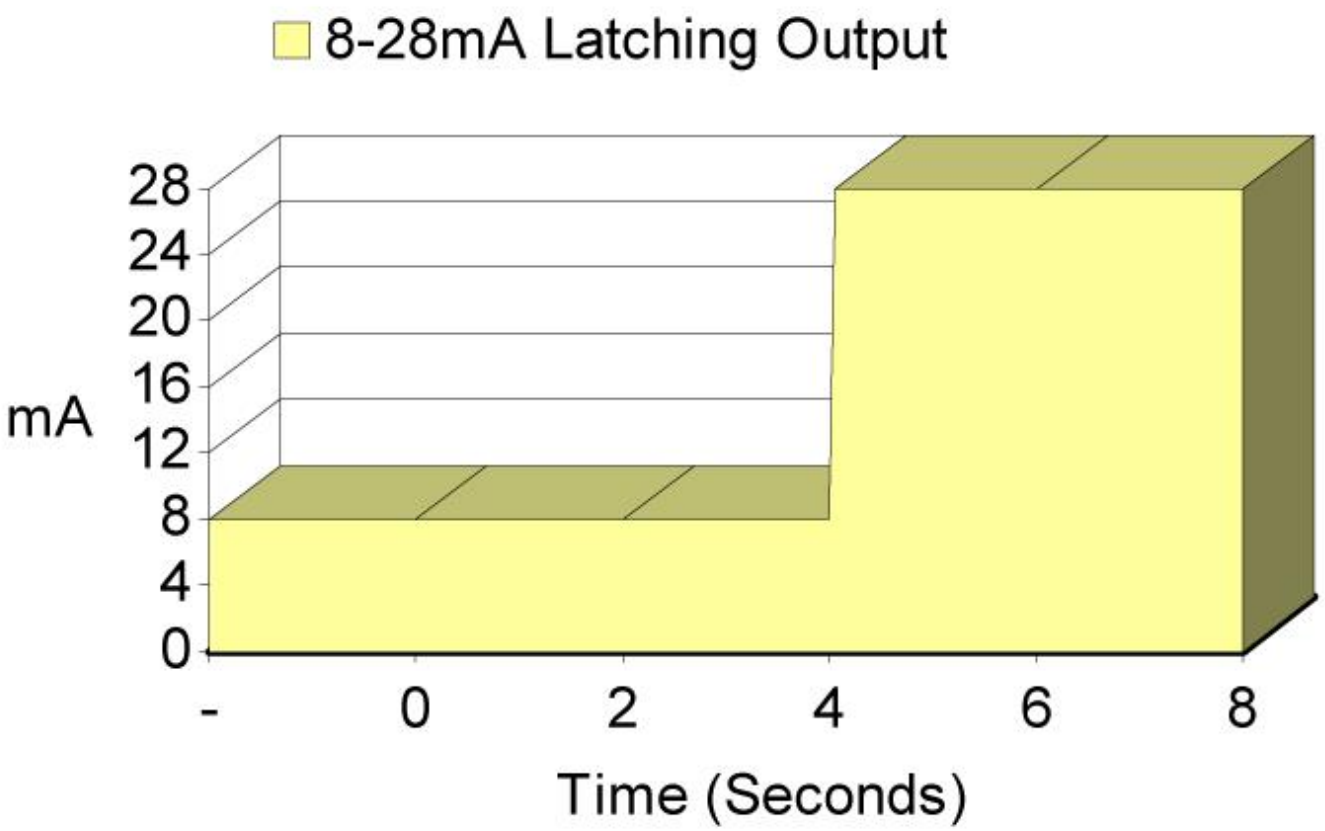
Fig. 3 Relative range as a function of viewing angle - IR³ Flame Sensor

Alarm Current Output Values

When the sensor detects a flame the sensor supply current value (4-20mA or 8-28mA) will increase.

The sensor is shipped with the internal DIL switch (5) set to give a latching alarm current. Normally the current required by the sensor is 4mA or 8mA at 24Vdc with no flame in view. When a flame is in view, the supply current value will increase to 20mA or 28mA, the fire relay RL1 will energise and red fire LED will illuminate.

The supply to the sensor has to be broken in order to reset the sensor. Values below 3.0mA are an indication of a fault conditions.

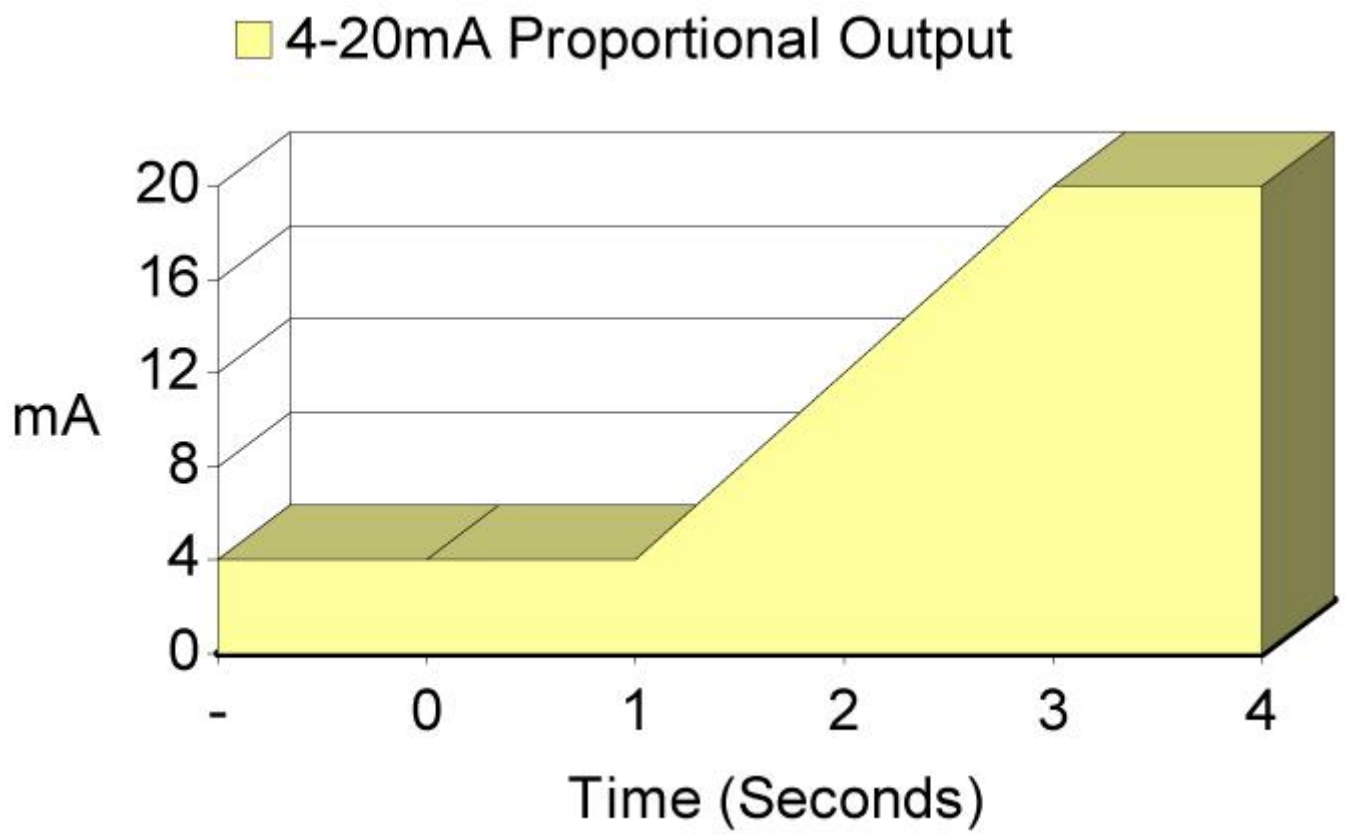


Proportional Output Vlaues **(Non-Latching)**

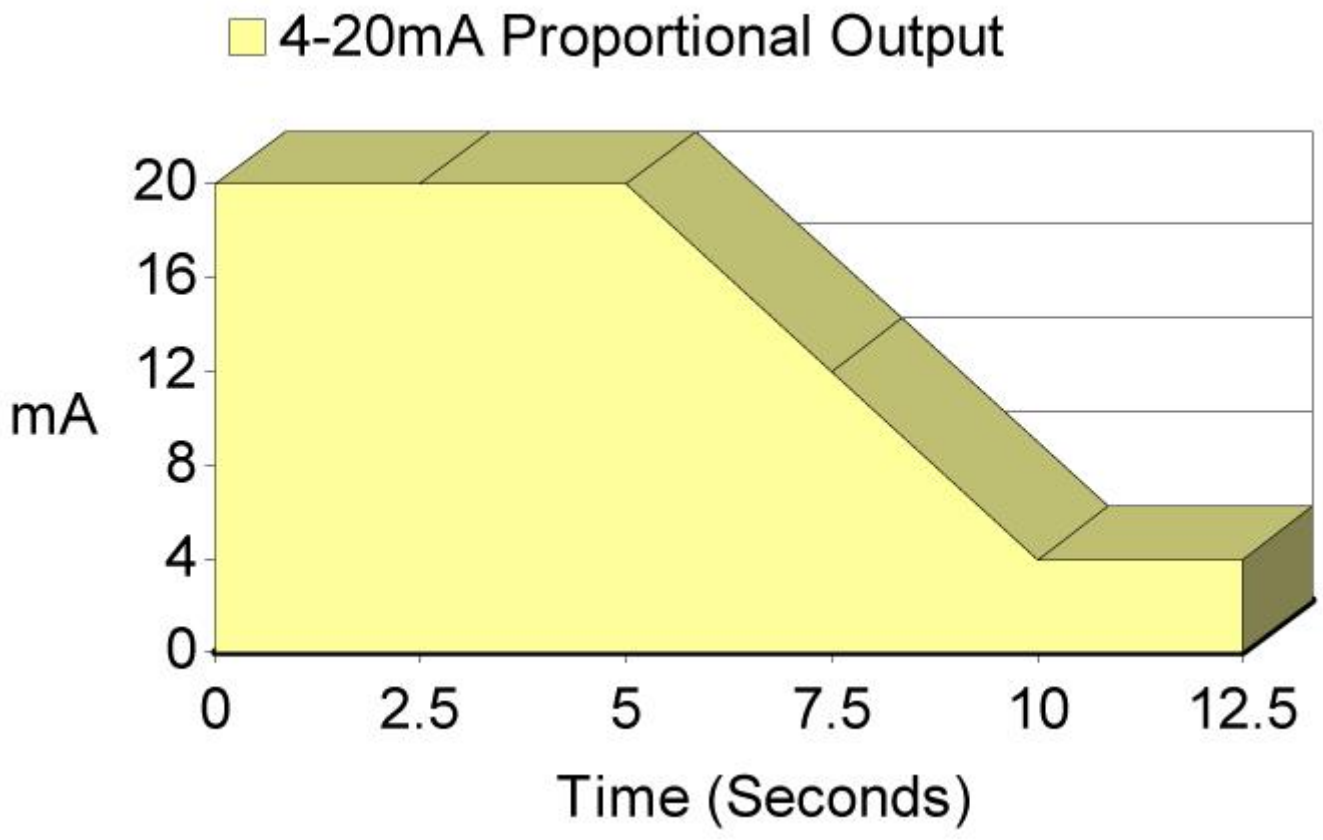
When the sensor sees any flame flicker the proportional values of (4-20mA or 8-20mA) will increase.

The sensor is set to give a proportional value of 4mA or 8mA with no flame in view. The value increments when flame flicker pulses are seen. With an output value approaching 20mA the fire LED will illuminate.

Values below 3.0mA are an indication of a fault conditions.



Once illuminated the red Fire LED and output value are held for 5 seconds after the last flame has been seen, after which the output value decrements back to 4 or 8mA.



Proportional output values between 4 or 8mA and 20mA can be used to provide an early warning of fire. These values hold only for 3 seconds from the last flame sighting.

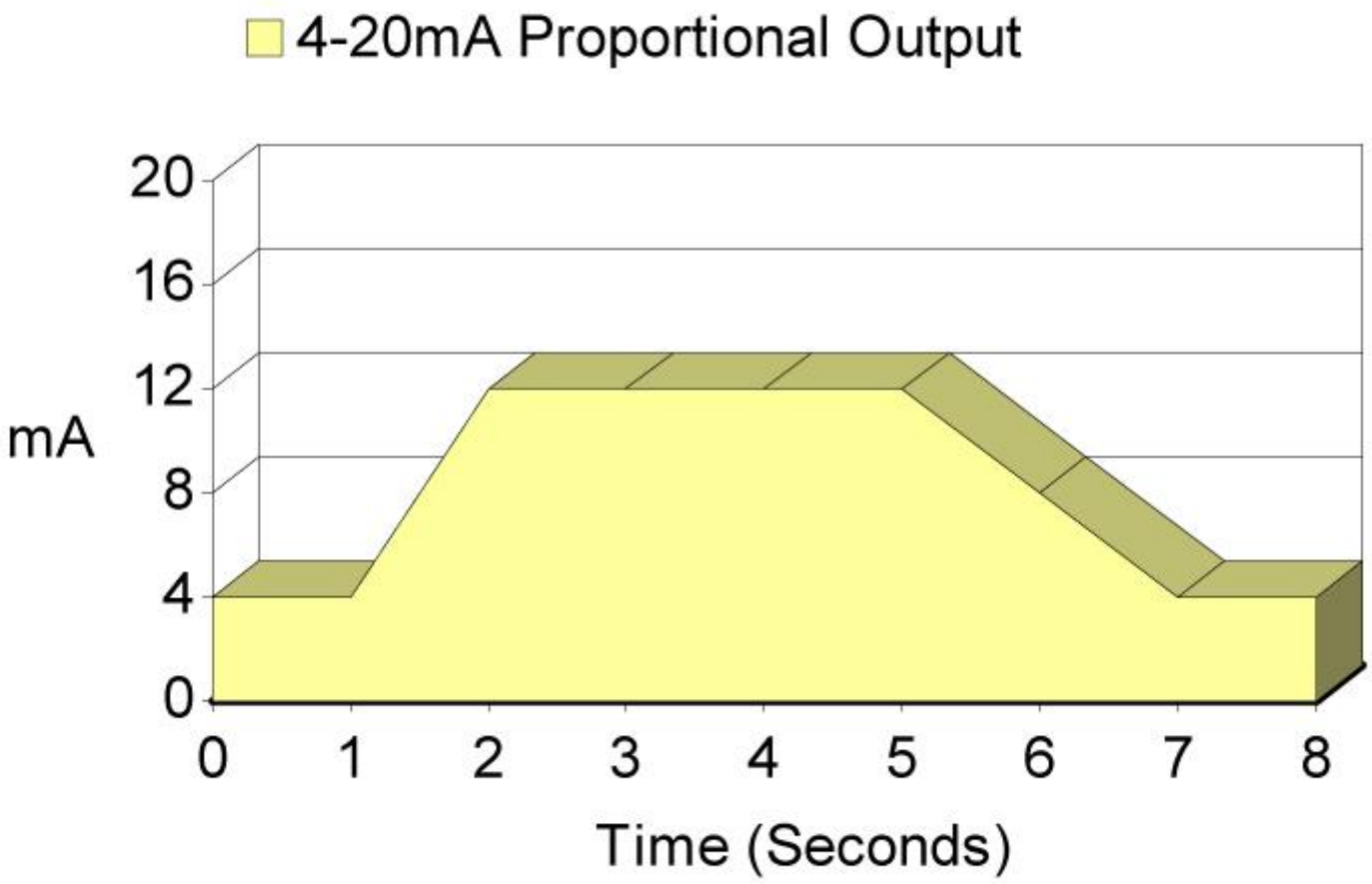


Fig. 7 Typical Response to Burst of Flame - IR³ Flame Sensor

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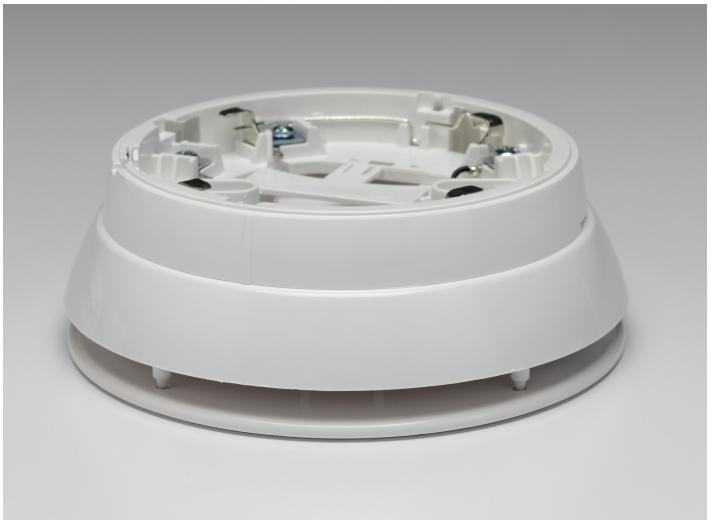
Intelligent Sounder Base

The intelligent sounder base is a low profile base sounder which is designed around a fully digital protocol and has a 240 device loop capacity. The acoustic output is selected from the control panel and the sounder activates its acoustic output following the triggering of an alarm condition on the host detector.

Once installed onto a compatible loop the device is fully addressable and benefits from an extensive range of intelligent functionality, including sounder synchronisation.

The unit's integral detector base has easy access for loop cabling and allows for the connection of both the sounder and associated detectors via a single set of cable terminations. The sounder base is EN54-23 compliant.

This sounder base is compatible with Axis-OP, Axis-OH, Axis-HT, Axis-OPX, Axis-OHX and Axis-HTX.



Features

- 32 programmable tones
- Compatible with standard remote activation
- Easy installation and cabling
- Low profile design
- Low current consumption
- Fully intelligent

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by IMQ and certified by the UAE Civil Defence

Specification

Voltage range	From 16 to 40 Vdc (typical 24 Vdc)
Max current load @ 40 Vdc applied, high volume selected	2.5 mA
Max current load 24V applied, high volume selected	3.5 mA
Max current load 16V applied, high volume selected	4 mA
Acoustic output frequency range	From 440 to 2900 Hz
Maximum acoustic intensity	92.6 dB(A)
Ambient temperature range	From -10°C to +55°C
Maximum tolerated humidity	95% RH (without condensation)
IP	21C
Weight	200 g

Order Codes and Options

Axis-S2MB	Intelligent Sounder Base (Plus)

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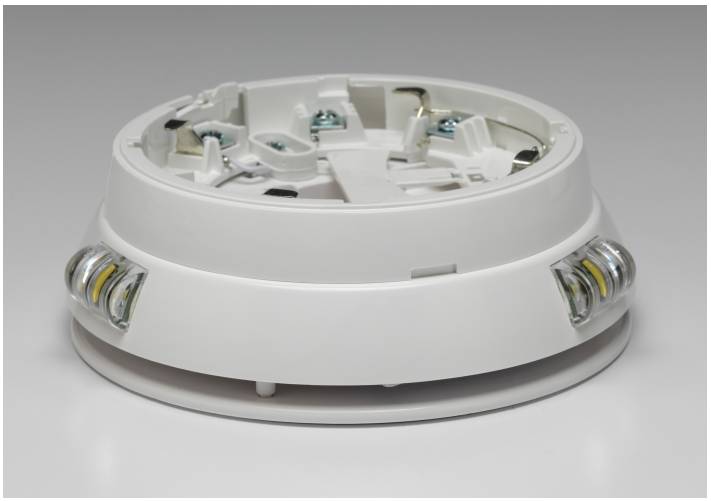
Axis EN

Intelligent Sounder Beacon Base

The Intelligent Sounder Beacon Base is a low profile base sounder with a combined 360° visual indicator. By utilising a fully digital communication protocol, reliable and fast operation is achieved even when employing the impressive 240 device loop capacity.

Once installed onto a compatible loop, the device is fully addressable and benefits from an extensive range of intelligent functionality, including sounder synchronisation. The unit's integral detector base has easy access for loop cabling and allows for the connection of both the sounder and associated detector via a single set of cable terminations. In conjunction with the acoustic signal, the sounder also emits a white optical alarm signal.

This sounder beacon base is compatible with Axis-OP, Axis-OH, Axis-HT, Axis-OPX, Axis-OHX and Axis-HTX detectors.



Features

- 32 programmable tones
- Compatible with standard remote activation
- Easy installation and cabling
- Low profile design
- Low current consumption
- Fully intelligent
- Built-in loop isolators
- 360 degree visibility of VAD when activated
- Synchronised sounder
- Adjustable volume output
- Auto-addressable via compatible panels
- Programmable via device programming tool

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- EN54-23: 2010
- Approved by IMQ and certified by the UAE Civil Defence

Specification

Voltage range	From 16 to 40 Vdc (typically 24 Vdc)
Max load current @ 40 Vdc applied, high volume selected	13 mA
Max load current @ 24 Vdc applied, high volume selected	21 mA
Max load current @ 16 Vdc applied, high volume selected	32 mA
Acoustic output frequency range	From 440 Hz - 2900 Hz
Maximum acoustic intensity	92.6 dB(A)
VAD's signal frequency	0.5 Hz
VAD typical flash coverage set to high power	C 3 - 14.2 and O 4.6 - 14.2
VAD typical flash coverage set to low power	C 3 - 9.2

VAD's signal colour	White
Operating temperature range	-10°C to +55°C
IP	21C
Dimensions (W x D)	141.4 mm x 66 mm
Weight	210 g
Maximum humidity (non condensing)	95% RH
Maximum number of loop addresses	240

Order Codes and Options

Axis-SV2MB	Intelligent Sounder Beacon Base (Plus)

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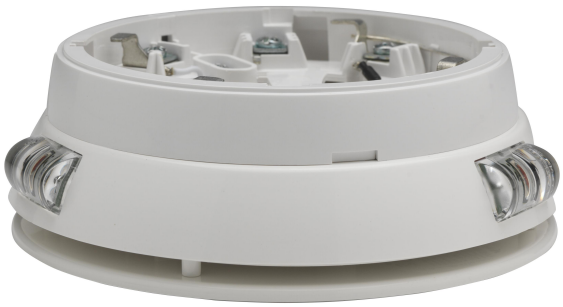
Axis EN

Intelligent Sounder Beacon Base (Red Flash)

The Intelligent Sounder Beacon Base (Red Flash) is a low profile base sounder with a combined 360° visual indicator. By utilising a fully digital communication protocol, reliable and fast operation is achieved even when employing the impressive 240 device loop capacity.

Once installed onto a compatible loop, the device is fully addressable and benefits from an extensive range of intelligent functionality, including sounder synchronisation. The unit's integral detector base has easy access for loop cabling and allows for the connection of both the sounder and associated detector via a single set of cable terminations. In conjunction with the acoustic signal, the sounder also emits a red optical alarm signal.

This sounder beacon base is compatible with Axis-OP, Axis-OH, Axis-HT, Axis-OPX, Axis-OHX and Axis-HTX detectors.



Features

- 32 programmable tones
- Compatible with standard remote activation
- Easy installation and cabling
- Low profile design
- Low current consumption
- Fully intelligent

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- EN54-23:2010
- Approved by IMQ and certified by the UAE Civil Defence

Specification

Voltage range	From 16 to 40 Vdc (typically 24 Vdc)
Max load current @ 40 Vdc applied, high volume selected	13 mA
Max load current @ 24 Vdc applied, high volume selected	21 mA
Max load current @ 16 Vdc applied, high volume selected	32 mA
Acoustic output frequency range	From 440 Hz - 2900 Hz
Maximum acoustic intensity	92.6 dB(A)
VAD's signal frequency	0.5 Hz
VAD typical flash coverage set to high power	C 3 - 10
VAD typical flash coverage set to low power	C 1.7 - 6.0
VAD's signal colour	Red
Operating temperature range	-10°C to +55°C
IP	21C

Dimensions (W x D)	141.4 mm x 66 mm
Weight	210 g
Maximum humidity (non condensing)	95% RH
Maximum number of loop addresses	240

Order Codes and Options

Axis-SV2MBRF	Intelligent Sounder Beacon Base (Plus) Red Flash

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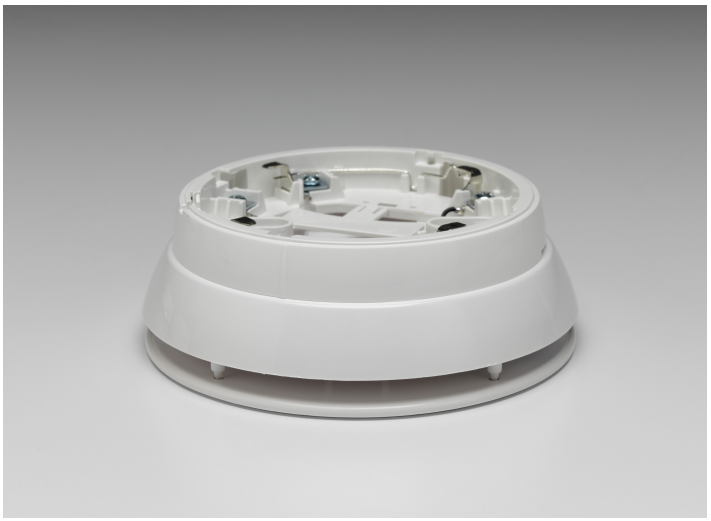
Slave Sounder Base

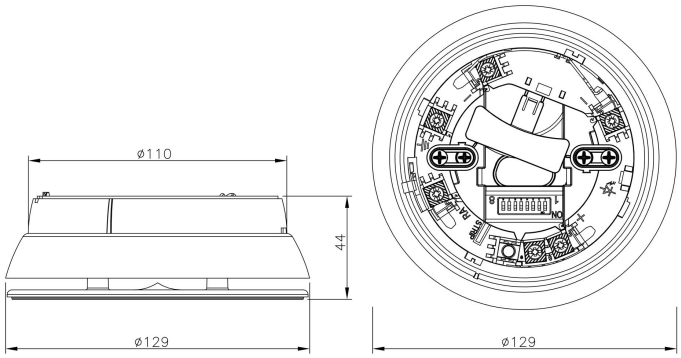
The slave sounder base plus is a low profile base sounder which activates its acoustic output following the triggering of an alarm condition on the host detector. The acoustic output is selected through the dip-switch.

The sounder base is designed around a fully digital protocol and has a 240 device loop capacity. When used in conjunction with an associated intelligent detector the unit can be controlled via the cause and effect programming of an Axis EN compatible control panel.

The unit has integral DIP switches, allowing independent adjustment of both tone and volume settings. The unit's integral detector base has easy access for loop cabling and allows for the connection of both the sounder and associated detectors via a single set of cable terminations.

This sounder base is compatible with Axis-OP, Axis-OH, Axis-HT, Axis-OPX, Axis-OHX and Axis-HTX devices.





Features

- 32 programmable tones
- one and volume set via DIP switch
- Synchronised sounder
- Adjustable volume output
- Includes device identification tab
- Easy central cable entry
- Low profile design
- Ceiling mounting bracket includes sound diffuser cone, loop cables passage, pre-cut holes for screwing the bracket to the ceiling and fixing pins

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by IMQ and certified by the UAE Civil Defence

Specification

Voltage range	From 16 to 40 Vdc (typical 24 Vdc)
Max current load @ 40 Vdc applied, high volume selected	2.5 mA
Max current load @ 24 Vdc applied, high volume selected	3.5 mA
Max current load @ 16 Vdc applied, high volume selected	4 mA
Acoustic output frequency range	From 440 to 2900 Hz
Maximum acoustic intensity	92.6 dB(A)
Ambient temperature range	From -10°C to +55°C
Maximum tolerated humidity	95% RH (without condensation)
IP	21C
Weight	200 g

Order Codes and Options

Axis-S2AMB	Slave Sounder Base
Axis-OP	Intelligent Optical Smoke Detector (without isolator)
Axis-OH	Intelligent Multicriteria Detector (without isolator)
Axis-HT	Intelligent Heat Detector (without isolator)
Axis-OPX	Intelligent Optical Smoke Detector
Axis-OHX	Intelligent Multicriteria Detector
Axis-HTX	Intelligent Heat Detector

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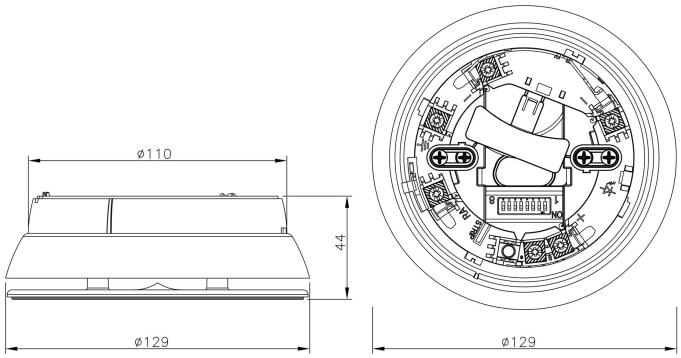
Slave Sounder Beacon Base

The Slave Sounder Beacon Base is a low profile base sounder with a combined 360° visual indicator. When used in conjunction with an associated intelligent detector, the unit can be controlled via the cause and effect programming of a compatible control panel utilising the Axis EN digital protocol.

The unit has integral DIP switches, allowing the independent adjustment of both sounder volume and tone settings. The unit's integral detector base has easy access for loop cabling and allows for the connection of both the sounder and associated detector via a single set of cable terminations.

This sounder beacon base is compatible with Axis-OP, Axis-OH, Axis-HT, Axis-OPX, Axis-OHX and Axis-HTX detectors.





Features

- 32 programmable tones
- Low current, high output sounder
- Tone and volume set via DIP switch
- 360 degree visibility of VID when activated
- Adjustable volume output
- Includes device identification tab
- Easy central cable entry

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- EN54-23:2010
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Specification

Voltage range	From 15 to 32 Vdc (typically 24 Vdc)
Standby current	70 µA @ 24 Vdc
Current consumption (activated - dual tone, beacon on)	5 - 12mA @24 Vdc
Max load current @ 40 Vdc applied, high volume selected	13 mA
Max load current @ 24 Vdc applied, high volume selected	21 mA
Max load current @ 16 Vdc applied, high volume selected	32 mA
Acoustic output frequency range	From 440 Hz - 2900 Hz
Maximum acoustic intensity	94 dB(A)
VAD's signal frequency	0.5 Hz
VAD typical flash coverage set to high power	C 3 - 14.2 and O 4.6 - 14.2

VAD typical flash coverage set to low power	C 3 - 9.2
VAD's signal colour	White
Operating temperature range	-10°C to +55°C
IP	21C
Dimensions (W x D)	141.4 mm x 66 mm
Weight	220 g
Maximum humidity (non condensing)	95% RH
Maximum number of loop addresses	240

Order Codes and Options

Axis-SV2AMB	Slave Sounder Beacon Base

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Intelligent Wall Sounder Interface module

The Intelligent Wall Sounder Interface Module is designed to allow the use of the Axis-CWS conventional sounders and Axis-CWSV conventional sounder beacon on an Axis EN intelligent loop.

The Axis-WSM module is compatible with intelligent control panels and systems based on the Axis EN protocol. Easy to install, it incorporates built-in short circuit loop isolation.

Once installed onto an Axis EN compatible intelligent loop, the device is fully addressable and benefits from an extensive range of intelligent control and monitoring functionality.



Features

- Flexible modular design
- Easy to install
- Manual and auto addressing options
- Built-in short circuit isolators
- Intelligent two-stage alarm capability
- Optional microphone self-test facility
- Addressing using the Device Programming Tool or Auto addressing capability via the fire control panel
- Fits Axis EN modular wall sounders and sounder beacons

Standards & Approvals

- EN54-17:2005 Short Circuit Isolators
- EN54-18:2005 Input / Output devices

Specifications

Power Supply voltage range	18 Vdc - 40 Vdc
Activated Circuit Load	(High Vol inc. Sounder) 5-8 mA at 24 Vdc
	(High Vol inc. Sounder Beacon) 11-25 mA at 24 Vdc
Operating Temperature Range	-25C to +70C
Weight Including Back Box	52 g
Max Tolerated humidity	95% RH (Non-condensing)
IP Rating	IP65

Order Codes and Options

Axis-WSM	Intelligent Wall Sounder Interface Module
Axis-CWS or Axis-CWS/W	Conventional Wall Sounder - Red or White
Axis-CWSV or Axis-CWSV/W	Conventional Wall Sounder Beacon - Red or White

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Advanced

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Single Monitored Input Module

The Axis single input modules are loop powered, designed around a fully digital protocol and allow monitoring of fire alarm and auxiliary devices

The input channel is monitored and will detect Normal / Short / Alarm and Open conditions.

The unit provides fast alarm and fault signalling, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit is supplied fixed to a plate which is suitable for wall mounting with a choice of standard 25mm or deep 47mm mounting boxes available.



Features

- Provides high reliability and error detection
- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
End-of-Line Resistor	(Reol): 27Kohm
Alarm resistor	(Rw): 10Kohm
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	200
IP Rating	21C

Order Codes and Options

20-VMI100-ADV:	AV Monitored Single Input Module
20-MB100-ADV:	Mounting box 25 mm
20-DMB100-ADV:	Mounting box 47 mm

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Single Monitored Output Module

The Axis single output modules are loop powered, designed around a fully digital protocol and provides control by closing contacts of auxiliary devices such as fire shutters.

The output channel is monitored and will detect Open and Short circuit conditions.

The unit provides a fast and secure response, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit is supplied fixed to a plate which is suitable for wall mounting with a choice of standard 25mm or deep 47mm mounting boxes available.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54- 17
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Relay Switching Characteristic	I=2A V=30Vdc
End-of-line resistor	(Reol): 27Kohm
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	200
IP Rating	21C

Order Codes and Options

20-VMC100-ADV:	AV Monitored Output Module

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Axis EN

Single Relay Output Module

The Axis single channel output modules are loop powered, designed around a fully digital protocol and provides form C changeover contacts for control of auxiliary devices such as fire shutters.

The output channel is a normally de-energised relay switched on by a command from the control panel.

The unit provides a fast and secure response, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit is supplied fixed to a plate which is suitable for wall mounting with a choice of standard 25 mm or deep 47 mm mounting boxes available.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54-17
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red/green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6 mA @24 Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Relay Switching Characteristic	I=2 A V=30 Vdc
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	200
IP Rating	21

Order Codes and Options

20-VMC120-ADV:	Wall Mounting Single Relay Output Module

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Single Monitored Input / Output Module

The Axis single input and output modules are loop powered and designed around a fully digital protocol. Each module allows monitoring of fire alarm and auxiliary devices and provides control by closing contacts of auxiliary devices such as fire shutters.

The input channel is monitored and will detect Normal / Short / Alarm and Open conditions. The output channel is also monitored and will detect Open and Short circuit conditions.

The unit provides fast alarm and fault signalling, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit is supplied fixed to a plate which is suitable for wall mounting with a choice of standard 25mm or deep 47mm mounting boxes available.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Relay Switching Characteristic	I=2A V=30Vdc
End-of-line resistor	(Reol): 27Kohm
Alarm resistor	(Rw): 10Kohm
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	200
IP Rating	21C

Order Codes and Options

20-VMIC100-ADV:	Wall Mounting Single Input & Single Supervised Output Module

Advanced, The Bridges, Balliol Business Park, Newcastle upon Tyne, NE12 8EW, UK T: +44 (0)345 894 7000 E: enquiries@advancedco.com
W: www.advancedco.com

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.

Advanced

Axis EN

Single Monitored Input / Relay Output Module

The Axis single input and relay output modules are loop powered and designed around a fully digital protocol. Each module allows monitoring of fire alarm and auxiliary devices and provides form C changeover contacts for control of auxiliary devices such as fire shutters.

The input channel is monitored and will detect Normal / Short / Alarm and Open conditions. The output channel is a normally de-energised relay switched on by a command from the control panel.

The unit provides fast alarm and fault signalling, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit is supplied fixed to a plate which is suitable for wall mounting with a choice of standard 25 mm or deep 47 mm mounting boxes available.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer
- Digital checking of double address
- Line quality information
- Bicolour (red/green) LED driven by the control panel

Specification

Power Supply	15-40 Vdc
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6 mA @24 Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Nominal Relay Switching current	I=2 A V=30 Vdc
End-of-line resistor	(Reol): 27 kohm
Alarm resistor	(Rw): 10 kohm
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	200
IP Rating	21

Order Codes and Options

20-VMIC120-ADV:	Wall Mounting Single Input and Single Relay Output Module

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Advanced

Axis EN

Multi Monitored Input / Relay Output Modules

The multi-channel Module series is a family of microprocessor controlled interface devices permitting the monitoring and control of auxiliary equipment.

The modules are a loop powered device, designed around our fully digital AV protocol.

The 20-VMIC404-ADV provides 4 single channel monitored input contacts and 4 volt free ‘form C’ changeover contacts for monitoring and control of auxiliary devices such as fire curtains/shutters.

The 20-VMIC422-ADV provides 4 single channel monitored input contacts, 2 supervised output contacts and 2 volt free ‘form C’ changeover contacts.

The 20-VMIC602-ADV provides 6 single channel monitored input contacts and 2 volt free ‘form C’ changeover contacts.

The modules provide a fast and secure response, and incorporates a bidirectional short circuit isolator. Connections are made using fixed terminal blocks which will accept conductors up to 2.5 mm^2. All units are supplied in an IP65 Rated enclosure.

These features not only aid commissioning and cut down on expensive ancillary hardware but also allow the system to be easily configured to provide additional inputs & outputs for the more complex cause and effect configurations.







Features

- Each input/output individually programmable
- Optional fail-safe setup
- Loop driven
- IP65 rated enclosure

Standards and Approvals

- EN54-17:2005
- EN54-18:2005
- Approved by IMQ

Specification

Power Supply	18V to 40 Vdc
Average Current Consumption	I=500 µA
Monitored Input (Rsw)	10 kΩ
Monitored Input/Output (Reol)	27 kΩ
Supervised Output	24 Vdc, 30 Vdc
Form C Relay	2A, 30V AC/DC
Humidity (non condensing)	85% RH
Operating Temperature Range	-30°C to +70°C
Dimensions (H x W x D)	210 x 170 x 65 mm
Weight	470 g
IP Rating	65

Order Codes and Options

20-VMIC404-ADV:	4 single channel monitored input contacts and 4 volt free ‘form C’ changeover contacts
20-VMIC422-ADV:	4 single channel monitored input contacts, 2 supervised output contacts and 2 volt free ‘form C’ changeover contacts
20-VMIC602-ADV:	6 single channel monitored input contacts and 2 volt free ‘form C’ changeover contacts

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Advanced

Axis EN

Conventional Zone Module

TheAxis conventional zone monitor allows a zone of conventional detectors to be interfaced to an Axis intelligent loop. The zone can be powered from the analogue loop or from an external power supply - selection is made by two jumper switches.

The current limitation of the zone circuit is programmable and adjustable by the control panel. The unit is able to identify all conditions on the conventional zone such as normal, open circuit, short circuit and alarm. In addition it monitors the power supply of the detection line - external or loop.

The unit provides fast and secure signalling, and incorporates a bidirectional short circuit isolator. A single changeover relay output is provided which can be switched on by a command from the control panel. This can be used for example, to provide a reset to certain conventional devices.

The communication loop is fully isolated from the zone circuit and external power supply.

The module is designed to be compatible with the majority of well known European conventional detectors.



Standards and Approvals

- EN54-17:2005
- EN54-18:2005
- Approved by IMQ

Features

- Provides high reliability and error detection
- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Adjustable current limit and reset pulse duration via the control panel
- Digital checking of double address
- Programmable relay output
- Line quality information

Specification

Power Supply	20-40 V
Average Current Consumption	I=120 uA
Standby Current	500uA
Power Up Time	2 sec
Operating Temperature Range	-10°C / +55°C
Humidity (non condensing)	85% RH
Zone End of line device	Capacitor (Ceol): 4.7uF - 50v
Conventional Zone Current Threshold	6 to 20mA (Alarm Threshold 2.5 to 15mA)
Relay Nominal Switching Current	I=2A V=30Vdc (0.5A - 125VAC)
Dimensions H x W x D mm	93 x 130 x 58
Weight grams	190
IP Rating	IP54

Order Codes and Options

20-VMCZ100-ADV:	Conventional Zone Module

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Axis EN

Mini Monitored Single Input Module

The Axis single input modules are loop powered, designed around a fully digital protocol and allow monitoring of fire alarm and auxiliary devices

The input channel is monitored and will detect Normal / Short / Alarm and Open conditions.

The unit provides fast alarm and fault signalling, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit can be mounted within an electrical box or enclosure.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Provides high reliability and error detection
- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
End-of-Line Resistor	(Reol): 27Kohm
Alarm resistor	(Rw): 10Kohm
Dimensions H x W x D mm	52 x 75 2 28 without brackets
Weight grams	180
IP Rating	21C

Order Codes and Options

20-VMMI100-ADV:	AV Mini Monitored Single Input Module

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Axis EN

Mini Monitored Single Output Module

The Axis single output modules are loop powered, designed around a fully digital protocol and provides control by closing contacts of auxiliary devices such as fire shutters.

The output channel is monitored and will detect Open and Short circuit conditions.

The unit provides a fast and secure response, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit can be mounted within an electrical box or enclosure.



Standards and Approvals

- EN54-17:2005
- Approved by BSI and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54-17
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Relay Switching Characteristic	I=2A V=30Vdc
End-of-line resistor	(Reol): 27Kohm
Dimensions H x W x D mm	85 x 85 x 30
Weight grams	180
IP Rating	21C

Order Codes and Options

20-VMMC100-ADV:	AV Mini Monitored Output Module

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Axis EN

Mini Single Relay Output Module

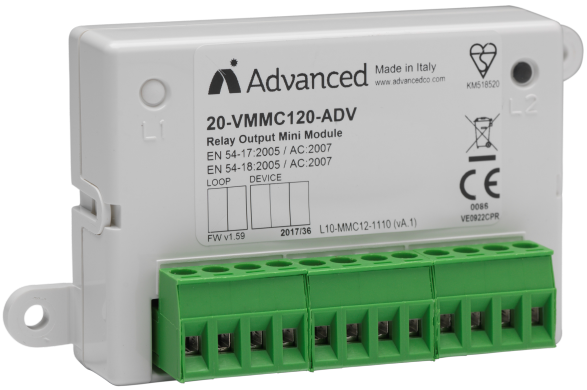
The Axis single channel output modules are loop powered, designed around a fully digital protocol and provides form C changeover contacts for control of auxiliary devices such as fire shutters.

The output channel is a normally de-energised relay switched on by a command from the control panel.

The unit provides a fast and secure response, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit can be mounted within an electrical box or enclosure.



Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Features

- Short circuit isolators in each device to the requirements of EN54-17
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Auto addressing capability (Control panel feature)
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Nominal Relay Switching current	I=2A V=30Vdc
Dimensions H x W x D mm	52 x 75 x 28 without brackets
Weight grams	180
IP Rating	21C

Order Codes and Options

20-VMMC120-ADV:	Mini Single Relay Output Module

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Axis EN

Mini Monitored Single Input / Relay Output Module

The Axis single input and relay output modules are loop powered and designed around a fully digital protocol. Each module allows monitoring of fire alarm and auxiliary devices and provides form C changeover contacts for control of auxiliary devices such as fire shutters.

The input channel is monitored and will detect Normal / Short / Alarm and Open conditions. The output channel is a normally de-energised relay switched on by a command from the control panel.

The unit provides fast alarm and fault signalling, and incorporates a bidirectional short circuit isolator.

Connections are made using plug-in terminal blocks which will accept conductors up to 2.5mm².

The unit can be mounted within an electrical box or enclosure.



Features

- Short circuit isolators in each device to the requirements of EN54-17
- Large capacity, up to 240 devices per loop
- Auto addressing capability (by the control panel) or manually using a hand held programmer.
- Digital checking of double address
- Line quality information
- Bicolour (red green) LED driven by the control panel

Standards and Approvals

- EN54-3:2001 +A1:2002 +A2:2006
- Approved by BRE/LPCB and certified by the UAE Civil Defence

Specification

Power Supply	15-40 V
Average Current Consumption	I=120 uA
LED Current Consumption	Iled=6mA @24Vdc
Operating Temperature Range	-30°C / +70°C
Humidity (non condensing)	95% RH
Nominal Relay Switching current	I=2A V=30Vdc
End-of-line resistor	(Reol): 27Kohm
Alarm resistor	(Rw): 10Kohm
Dimensions H x W x D mm	52 x 75 x 28 w/o brackets
Weight grams	180
IP Rating	21C

Order Codes and Options

20-VMMIC120-ADV:	Mini Single Input and Single Relay Output Module

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Axis EN

Programming Unit

Device for the manual addressing of Axis intelligent products - detectors, modules, call points and sounders.

Powered by a 9V battery 6LR61 (not supplied).

Provides indication of device parameters including contamination level of the optical detector chamber, analogue values, production date and others.



Features

- Menu driven hand held programming tool for AV devices.
- Detectors are directly mounted on the 20-VPU1000-ADV for manual addressing.
- Modules, call point and sounders are addressed via a plug in cable.

Specification

Power Supply	9v battery 6LR61
Humidity (non condensing)	95% RH
Operating Temperature Range	-30°C / +70°C
Weight grams	200

Order Codes and Options

20-VPU1000-ADV:	AV Programming Unit

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Advanced

Axis EN

Deep Base Housing

The UA-BCW-H65 deep base housing has been specially designed to assist the installer when mounting point detection devices into difficult and harsh environments.

Its integrated device cowl diverts excess water away from the detection device allowing the device to be mounted onto surfaces where higher than normal levels of condensation or moisture are present.

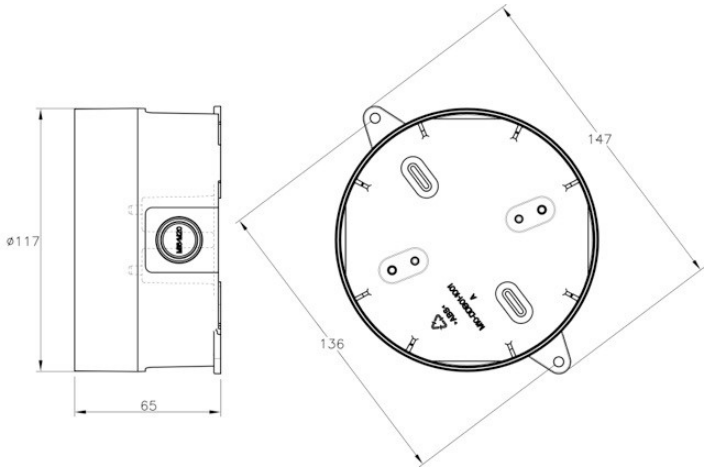
The unit has pre-formed conduit entry knockouts on four sides, allowing for simple and professional surface installation.

The unit is compatible with the entire Axis EN wired and wireless point detection range.



Features

- M16 and M20 pre-cut conduit and gland entry points to sides and base
- External removable fixing lugs allow base to be mounted while maintaining the maximum protection from water ingress
- Base design compatible with all Axis EN wired and wireless detectors
- Deep design directs condensation droplets from ceiling away from the detectors and provides additional protection against water and air movement
- Full screw-kit provided



Specification

Compatibility	All detectors in the current Axis EN wired and wireless range
Dimensions	117 mm x 65 mm
Weight	87 g
Temperature range (no icing)	-10°C to +55°C
Maximum humidity (non condensing)	95% RH
Conduit entry size	4 no. x 16 mm - 20 mm

Order Codes and Options

UA-BCW-H65:	Conduit Base Housing

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