

BDH110, BDH160

Optical beam linear smoke detectors

The devices of the BDH series (BDH110 and BDH160) are optical linear smoke detectors equipped with transreflective technology and a motorized head capable of automatically aligning the trajectory of the detection beam and of continually adjusting its position regardless of movements inside the building where they are installed.

Smoke contamination is detected by the analysis of the IR return beam from the reflector implemented by the transreflective technology of the device, which via an infrared transceiver is capable of signaling fire outbreaks.

The BDH110 and BDH160 models come with a control unit for the configuration and management of the various device features, including automatic and manual alignment of the detection beam, device maintenance and diagnostics, the possibility to adjust the sensitivity of the detector and to carry out tests to validate the correct signalling of the fire alarm both to the device and to the fire control panel.

The standard version of the device has a coverage range of 7 to 70 meters thanks to a supplied reflector; for large buildings it is possible to extend coverage to up to 160 meters by means of extension kits (medium and long range).



MAIN FEATURES

- Detector with integrated TX and RX and reflector
- Motorized for self-alignment
- Connectable to Inim Loop via EU311 module
- Powered independently or from Loop
- Max. 20 detectors powered by a single Loop (to be verified with Loop calculation software)
- Controller for management and maintenance operations (for BDH110 and BDH160 models)

OPERATIVE STATUSES

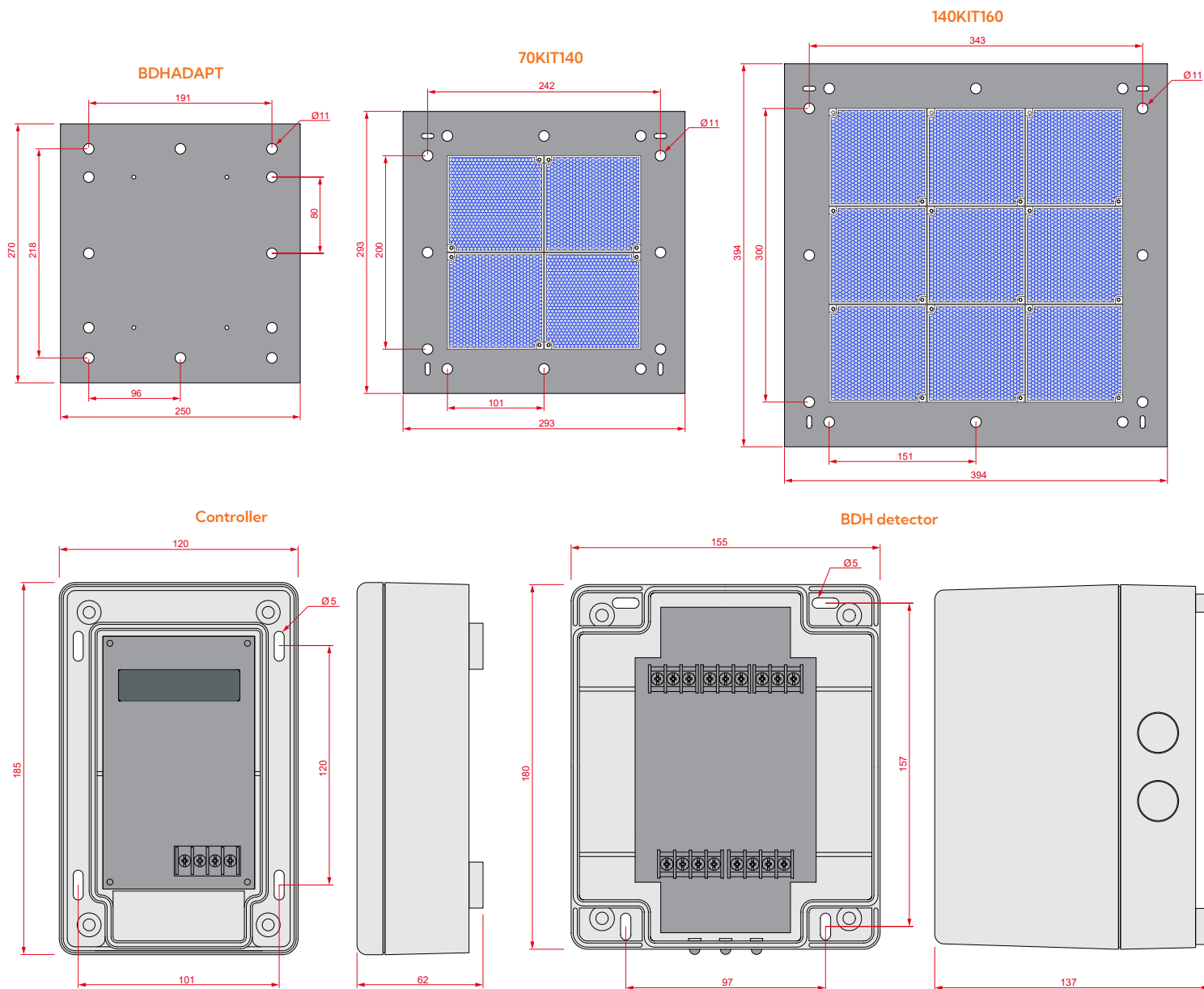
Normal conditions	The obscuration level is higher than the alarm sensitivity threshold Flashing green LED on transceiver ON/OFF programmable
Alarm	The obscuration drops below the predefined sensitivity level for a time that can be adjusted from 2 to 30 seconds in steps of 1 second (default setting: 10 seconds)
Alarm indications	Flashing on red LED Alarm relay switching contact (2A @ 30 Vdc)
Alarm sensitivity levels	From 25% (1.25dB) to 50% (3dB) in 1% (0.05dB) steps (default setting: 35% (1.87dB))
Fault	Obscuration drops below the fault sensitivity level within 1 second Power off or supply voltage < 9 Vdc Commissioning mode, Pre-Alignment, Auto Alignment The transceiver switches off during maintenance operations Time to Fault adjustable between 2 and 60 seconds in 1 second steps (default settings: 10 seconds)
Fault indications	Flashing on yellow LED, 1 second Switching fault relay contact (2A @ 30 Vdc)
Fault sensitivity level	≤4%

TECHNICAL SPECIFICATIONS

	BDH110	BDH160
Power supply voltage	12–30Vdc normal	
Power supply current		
during operating mode (in all operating modes)	3.5mA	
during fast alignment	17mA	
Operating temperature	from –10°C to +55°C	
Humidity	from 10 to 95%, RH without condensation	
Protection grade	IP65	
Optical wavelength	870nm	
Dimensions (HxWxD)		
Transceiver	180 x 155 x 137 mm	
Control unit	185 x 120 x 62 mm	
Weight		
Transceiver	1.1 Kg	
Control unit	0.55 Kg	

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DIMENSIONS



ORDER CODES

BDH110	Self-aligning optical linear smoke detector from 5 to 70 meters
BDH160	Self-aligning optical linear smoke detector from 5 to 70 meters
BDHADAPT	Mounting plate for beam head or single reflector
70KIT140	Mid-range reflector extension kit (70 to 140 meters)
140KIT160	Long-range reflector extension kit (140 to 160 meters)
FB-BRACKET	Swivel plate for prism reflector
FOGKIT	Anti-fogging kit for optical linear beam smoke detectors from BDH series
FOGREF	Reflector for FOGKIT anti-fogging kit for BDH series optical linear beam smoke detectors