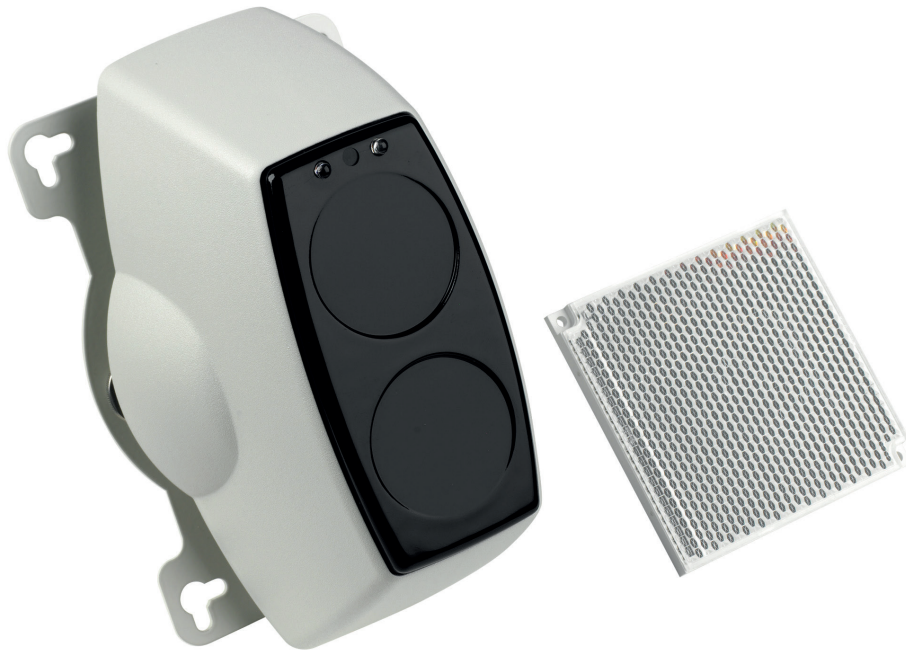


MBD50R, MBD100R - Conventional reflective beam detectors



Two versions of the conventional zone powered reflective beam detectors are available in this range, the MBD50R with a range of up to 50 metres and the MBD100R with a range of 50 to 100 meters.

Both the MBD50R and the MBD100R are compatible with the Eaton range of conventional fire systems.

These conventional zone powered reflective beam detectors are extremely simple to install, they require no separate power supply, operate on a reflective principle and have a simple set up mode to enable easy and quick alignment during installation.

These units are designed to replace individual point detectors in large open areas such as warehouses.

Fire and fault conditions are signalled to panel using standard zone wiring so no additional interconnection is required.

Features and benefits

- Zone connected
- Simple two wire connection
- Reflective beam detection
- No power supply required
- Two ranges available:
 - up to 50m
 - 50m to 100m
- Quick and simple to setup
- Saves on both time and installation costs
- Single device to install instead of numerous point detectors
- Single point of maintenance
- Wall mounted for ease of maintenance, especially in warehouses with racking

Specifier's guide

4.3 Accessories

Technical specification

Code	MBD50R	MBD100R
Description	Reflective beam detector	Reflective beam detector
Standards	EN54 Pt12 2002	EN54 Pt12 2002
Specification		
Operating voltage	18V dc to 30V dc	18V dc to 30V dc
Quiescent current	< 5mA (no LED's illuminated)	< 5mA (no LED's illuminated)
Alarm current	< 9mA	< 9mA
Alignment current	< 18mA	< 18mA
Power up time	20 seconds (approx)	20 seconds (approx)
Operating range	5 to 50 metres	50 to 100 metres
Tolerance to beam misalignment at 35%	Detector ± 0.8°, Prism ± 5.0°	Detector ± 0.8°, Prism ± 5.0°
Fire alarm thresholds	2.50dB (25%) 3.74dB (35%) 6.02dB (50%)	2.50dB (25%) 3.74dB (35%) 6.02dB (50%)
Optical wavelength	880nm	880nm
Environmental		
Operating temperature	-10°C to +55°C	-10°C to +55°C
Humidity (non condensing)	0 to 93% RH	0 to 93% RH
Physical		
Construction	PC/ABS	PC/ABS
Colour	White	White
Dimensions (H x W x D)	210mm 130mm x 120mm	210mm 130mm x 120mm
Weight	0.8kg	0.8kg
Ingress protection	IP40	IP40
Compatibility		
Suitable for use with	Eaton conventional fire systems	Eaton conventional fire systems

Installation

1. Must be fixed to solid structure.
2. Recommended mounting height is 0.3 to 0.6 metres below the ceiling.
3. Cables can be terminated into separate termination box (not supplied) or use purpose designed mounting bracket (MRBFP) ordered separately.
4. Mounting bracket has facilities for glanding of incoming cables plus simple fixing of beam detector.
5. Test filter is supplied with detector to simulate required smoke obscuration level and confirm correct operation.

System functionality

Beam detectors have 3 modes:

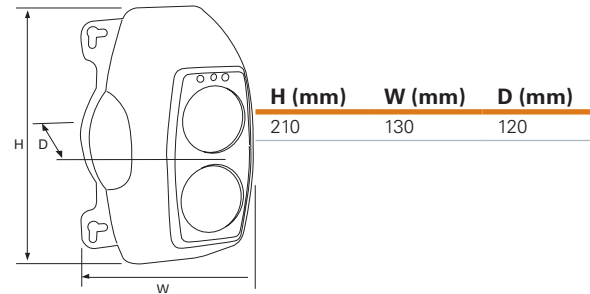
- Prism targeting mode - Designed to provide simple initial alignment of beam and reflector assembly.
- Alignment mode - Enables accurate fine tuning of beam alignment without the need for additional calibration equipment or a second operator.
- Normal running mode

User interface

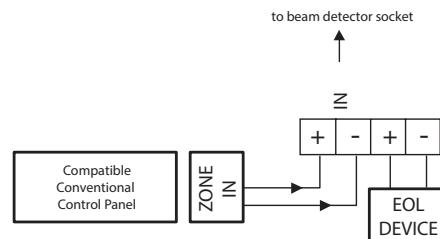
Beam detector status LEDs:

- Red LED constantly illuminated indicates fire condition.
- Flashing amber LED indicates fault condition.

Dimensions



Standard connections



WARNING:

Do NOT use high voltage testers if ANY equipment is connected to the system.

Note: 1 beam per zone

Catalogue numbers

Description	Code
Reflective beam detector (50m range)	MBD50R
Reflective beam detector (50-100m range)	MBD100R
Mounting bracket	MRBFP