

Self-Aligning Beam Detector 8-50 m

Instruction Sheet

R10022GB0



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1 Self-Aligning Beam Detector overview

The high-performance Auto-Aligning Beam Detector comprises of a ground level controller, detector head with auto-aligning feature, integral laser for rapid initial alignment and single prism. An additional detector head can be added to the controller.

The Auto-Aligning Beam Detector is a compact detector for detecting smoke in large open areas such as warehouses, theatres, churches and sports centers.

It comprises of a ground level Controller, a Detector Head with an operating range of 8m-50m and a single prism.

One controller can operate up to a maximum of two separate detector heads.

1.1 Brand Features

Auto-compensates for building movement and contamination Integral laser and auto-align enable quicker installation Low-level system controller with LCD display and user-friendly interface.

1.2 Function

A built-in laser provides rapid initial alignment and thereafter the detector head will continuously automatically align and compensate for any building movement. The status of each detector can be monitored through the controller which is sited at ground level to avoid the need for expensive lifting gear.

The detector head operates both as a transmitter and a receiver. A well-defined IR beam is projected to a prism mounted on the opposite wall, which is reflected back to the receiver. In the event of smoke partially obscuring the light an imbalance between the transmitted and received light will occur.

Distances from 18 to 50m can be protected with one prism. To protect distances from 50m to 100m, four prisms are required. In distances from 8 to 18 m short range mask on a single prism (see installation guide) is required.

1.3 Features

- Ground level Controller avoids expensive lifting gear
- Automatic compensation for building movement
- Laser assisted alignment for quick installation
- Up to 2 detectors per Controller
- Each detector adjusts from 8m to 100m
- EN54:12 approved

1.4 Electrical considerations

The Auto-Aligning Beam Detector requires a 14 to 28V DC power supply. It can be interfaced onto the Esmi Sense FDP and FX 3NET system using addressable input modules. See connection drawings on page 2.

Power to the detector can be supplied using an EN54 approved power supply or Esmi Sense FPD/ FX 3NET control panel - please refer to the Quick Start Guide supplied with the product for details.

1.5 Further information

The Auto-Aligning beam detector must be installed in accordance with the Quick Start Guide supplied with the product. This guide contains more information on the following topics:

- System design
- Installing beam detectors
- Targeting, aligning and commissioning the Auto-Aligning Beam Detector
- Troubleshooting

1.6 LED fault indication

A fault is indicated by the amber LED flashing every 10 seconds. If the drift compensation function has reached its limit the amber LED flashes once every 10 seconds and an error code is displayed on the ground level Controller. The detector will continue to function but maintenance procedures should be carried out at the earliest opportunity.

2 Connection to addressable loop

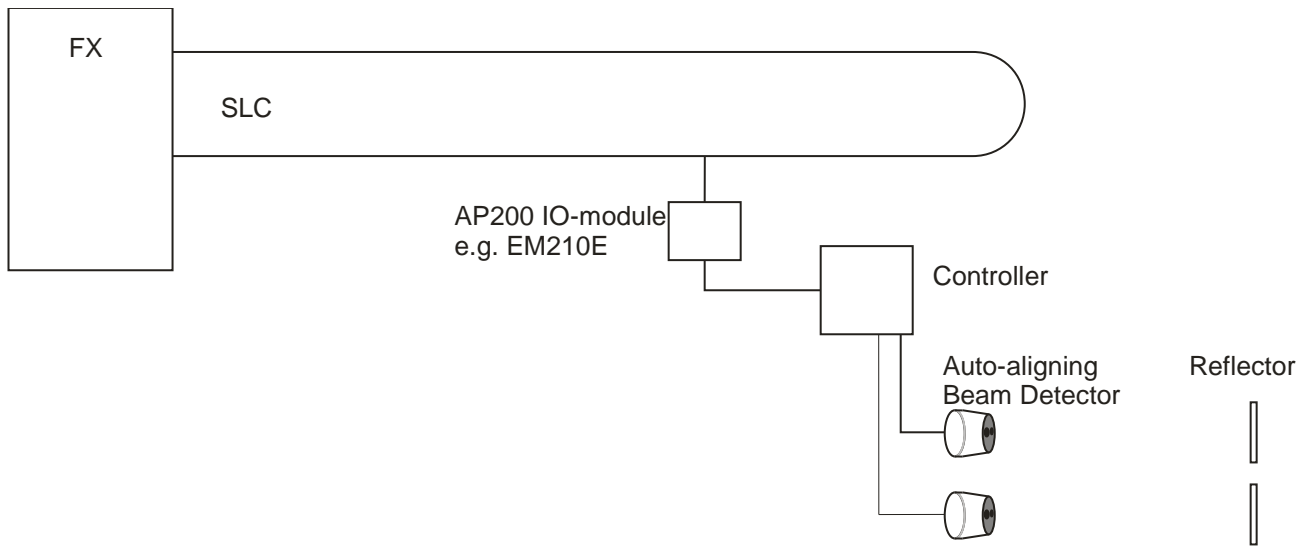


Figure 1 Connection of Auto-aligning Beam Detector to FX-SLC addressable loop.

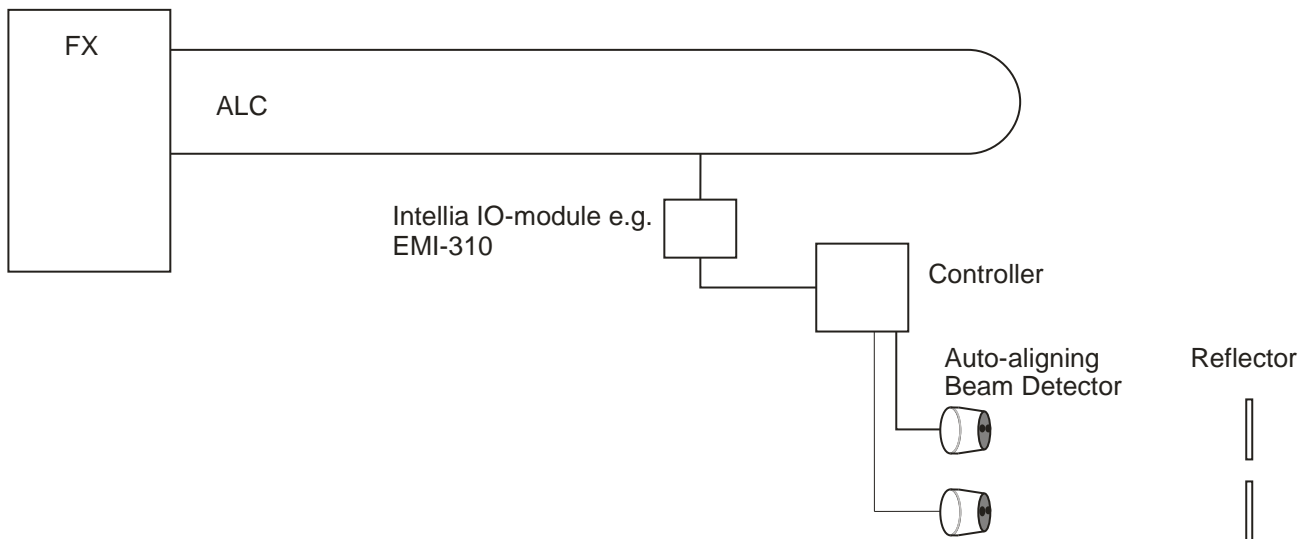
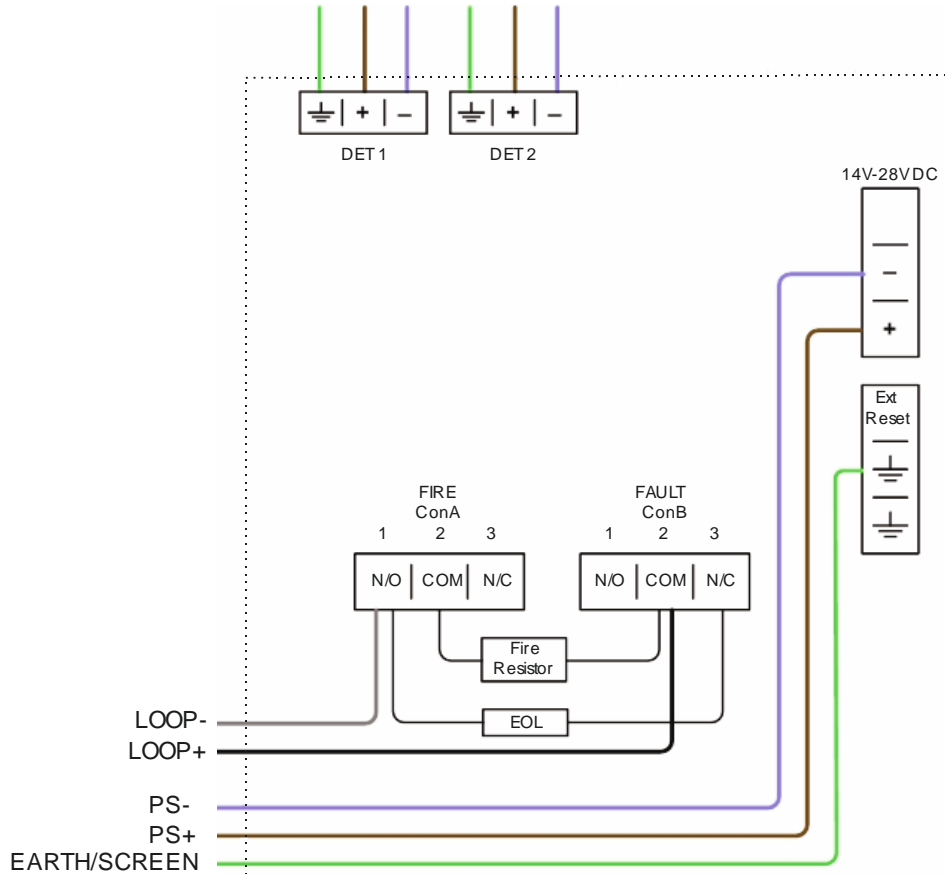


Figure 2 Connection of Auto-aligning Beam Detector to FX-ALC addressable loop.

2.1 Wiring diagram

Wiring diagram in Controller unit



3 Accessories



Figure 6 Universal Bracket (for use with detector head and prism mounting plates)



Figure 5 Surface Mounting Plate for prisms



Figure 4 Prism Mounting Plate (4 prisms 50-100m)



Figure 3 Prism Mounting Plate (1 prism 18-50m)

3.1 Dimensions

Product	Dimensions w*h*d	Weight
Controller with base	202*230*81mm	1000g
Detector with base	135*135*135mm	500g
Universal bracket	135*135*71mm	200g
Reflector	100*100*10mm	100g

3.2 Product codes

Type	Description	Code
29600-525	Additional Detector Head 8-50m	FFS0672 5274

Type	Description	Code
29600-524	Auto-Aligning Beam Detector 5-80m	FFS0672 5273
29600-526	Extension Kit 100m	FFS0672 5275
29600-527	Universal Bracket (for use with detector head and prism mounting plates)	FFS0672 5276
29600-528	Surface Mounting Plate for prisms	FFS0672 5277
29600-529	Prism Mounting Plate (4 prisms 50-100m)	FFS0672 5278
29600-530	Prism Mounting Plate (1 prism 18-50m)	FFS0672 5279