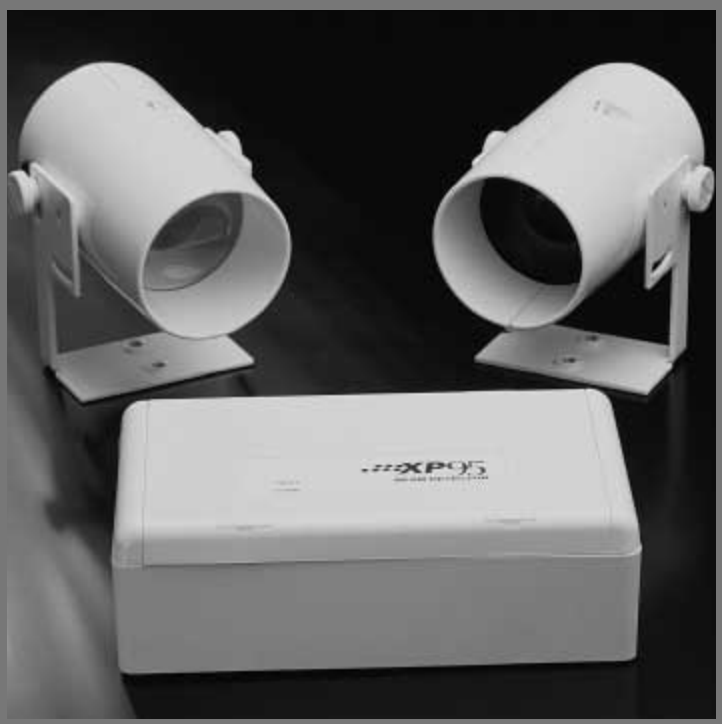
XP95 BEAM DETECTOR



- *Loop-powered*
- *Compatible with XP95 and Discovery*
- *Four selectable alarm levels*
- *Drift compensation*
- *Remote interface*
- *Simple wiring*
- *Simple alignment*

Loop-powered Beam Detector

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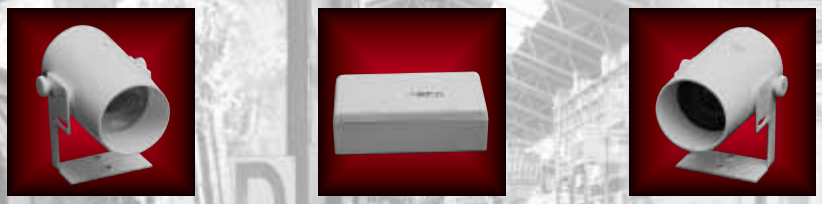

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XP95 Loop-powered Beam Detector

The XP95 beam detector has been designed to protect large open spaces such as atria, museums, churches, warehouses and factories. It is made up of three main parts: the transmitter, which projects a beam of infra-red light, the receiver, which registers the light and produces an electrical signal, and the interface, which processes the signal and generates alarm or fault signals.

The transmitter and receiver are designed to be fitted on opposite walls approximately 30cm to 60cm below the ceiling. They can protect areas up to 100m long and 15m wide, a total of 1500m^2. If it is difficult to fit the transmitter and the receiver to opposite walls, they may be fitted in retro mode, ie, adjacent to each other on the same wall. A reflector needs to be fitted to the opposite wall to reflect the beam from the transmitter to the receiver.

The interface contains the electronic circuitry needed to control the beam detector and communicate with the control panel via the XP95 or Discovery loop.

In clear air the receiver registers all the light sent by the transmitter. If smoke from an incipient fire is present, it rises and obscures the light to a certain extent. The decrease in the amount of light registered by the receiver causes the beam detector to change to the alarm state.

The detector compensates for signal drift and, if the limit of compensation has been reached, a fault signal is generated; the detector may optionally be set to return a fault if the beam is totally and suddenly obscured.

Loop-powered

The XP95 beam detector has been developed from designs that have been well proven in countless fire protection systems. A major advance has, however, been made, in that the XP95 beam detector is Loop-powered and needs no separate 24V supply. This not only eliminates the need for additional equipment - it also saves both cost and time in installation.

Compatibility

The beam detector operates as a conventional detector, in that it changes to the alarm state at a pre-set level of smoke obscuration, but is able to communicate with the control panel and return information when interrogated. The interface will operate on both the XP95 and the Discovery protocols.

Selectable Alarm Levels

The XP95 beam detector is set on commissioning to one of four levels of obscuration, determined with reference to the environment in which it is installed. The levels are 25%, 35%, 50% and 65%, where 25% is the most sensitive and 65% the least sensitive level. A DIL switch on the interface is used to set the obscuration level.

Drift Compensation

It is possible that the amount of light registered by the receiver is decreased by factors other than incipient fires. The most obvious cause of such a change is contamination of the lens of the receiver. In order to minimise the risk of unwanted alarms, the XP95 beam detector checks its status at regular intervals and compensates for positive drift of signal. The analogue value sent to the control panel is pre-set and cannot be further compensated by the panel.

Remote Interface

The optical and electronic elements of the XP95 beam detector are separate from one another, with the majority of the electronics being housed in the interface. The advantage of this is that the interface may be installed in an accessible position. If it is required to service the electronics of the beam detector, this can be done without the need for access equipment.

Simple Wiring

The transmitter and the interface of the XP95 beam detector can be wired to the nearest point of the loop. No extra wiring is necessary for any purpose.

Simple Alignment

During commissioning it is necessary to align the transmitter and receiver so that the beam is correctly projected at the receiver. By its nature the beam is invisible to the human eye, so that alignment has traditionally been a complex procedure. The XP95 beam detector makes alignment simple - a high-brightness LED behind the receiver lens flashes while the transmitter is being aligned. Once alignment is correct, the LED stops flashing.

XP95 Optical Beam Detector ***Part no. 55000-265***

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