3000-115

End-to-End Beam Smoke Detector 5 - 100m, Flame Proof

The 3000-115 is ideally suited for the protection of large areas, with potentially explosive atmospheres, against smoking fires. 3000-115 comprises of an infrared transmitter and a receiver, both of which are ATEX-certified for use in Group 2 hazardous areas.There is a separate, safe area, wall-mounted remote/low level control unit to allow adjustment and testing from a convenient non-hazardous location.

The product is designed for large enclosures within oil rigs, refineries, ordnance stores and similar premises. It provides an early warning of smoldering or strongly smoke-generative fires, which may not be picked up by flame detectors installed in many hazardous areas.The end-to-end beam smoke detector, together with a battery backed power supply, can be connected to a zone of a conventional fire alarm control panel or interfaced to an analogue-addressable system via an addressable input module or a zone monitor module.

Operation

The Transmitter head emits a narrow beam of infra-red light to an associated Receiver head. Once smoke crosses through and thus obscures the IR beam path, the signal strength at the Receiver drops below a preset level which in turn results in an alarm condition.
The 3000-115 has been designed so that it can be installed by a single Engineer, with its laser assisted alignment method combined with easy to use alignment LEDs offering visual feedback. Integrated laser alignment aid can be activated at the Controller.

It also has a feature which allows for the Transmitter to be powered from the Controller by wiring directly, thus reducing the number of power supplies required.

The low level Controller incorporates a LCD display, which offers a full icon-based, easy-to-use interface unit. This Controller enables ease of commissioning, testing and maintenance of the beam detection system. During commissioning the detector's fire sensitivity thresholds can be selected, along with the user variable time to fire and time to fault settings.

Standard Features

- Seperate transmitter and receiver unit certified to Exd
- Allows for 2 Detectors per System Controller (Additional Detector Set: 3000-026)
- Separate fire and fault relays per detector
- Range 5 to 100m, configurable per set of detectors
- Integral laser alignment in receiver
- Low current consumption
- 2-wire interface between controller and receiver
- Remote/low level controller with LCD display (safe area)
- Programmable sensitivity and fire/fault delay
- Contamination compensation for dust and building movement
- Transmitter can be powered from controller
- ATEX, IECEx, EN54:12, VdS Approved
- Light cancellation technology

3000-115

End-to-End Beam Smoke Detector 5 - 100m, Flame Proof

Specifications

Operating Voltage	12 - 36 VDC +/-10%
Operating Current	
Controller	14mA (constant) (with 1 or 2 receivers)
Transmitter	8mA (per transmitter)
Environmental	
Operating Temperature	-20 to 55 °C (non-condensing)
Relative Humidity	93% (non-condensing)
Power Down Reset Time	>20 seconds
Fire and Fault Relay Contacts	2A @ 30Vdc resistive
Optical Wavelength	850nm
Size	
Control Unit	124 x 203 x 73.5 mm
Transmitter/Receiver	172 x 149 x 190 mm (incl. bracket)
Weight	
Control unit	0.6 Kg
Transmitter/Receiver	3.7 Kg (incl. bracket)
IP Rating	
Controller	IP 50
Transmitter/Receiver	IP 66
Housing Material	
Controller	UL94 V2 PC
Transmitter/Receiver	Aluminium Alloy LM25, red
Bracket	Steel, red
LED Indications	
Controller	Red = Fire; Amber = Fault; Green = System OK
Receiver	Alignment LEDs for single person alignment
Parts List	Transmitter (clear lens), receiver (dark lens), controller, fixing kit, two brackets
Alarm & Operation Thresholds	
Delay to Alarm/Fault	Min: 2sec; Typ: 10sec; Max: 30sec (selectable in 1sec steps)
Laser Time-out	Min: 1min; Typ: 5min; Max: 59min (selectable in 1min steps)
Response Sensitivity/ Threshold	Min: 25%; Typ: 35%; Max: 60% (selectable in 1% steps)
Certifications	
EN54:12 and ATEX	Ex II 2GD
	Ex db op is IIC T6 Gb
	Ex tb IIIC T85C Db

Ordering Information

Part No.	Description
3000-115	End-to-End Beam Smoke Detector 5 - 100m, Flame Proof
3000-026	Additional Detector Set For End-to-End Beam Smoke Detector 5-100m, Flame Proof

United Technologies
Climate | Controls | Security