

DESCRIPTION

The new series of analogue sensors of the FG901 DETECTOR range constantly monitor the fire alarm condition. The advanced design of the optical chamber ensures excellent resistance to dust entry, which means that the sensor's performance is not compromised. Each sensor is equipped with drift compensation, it communicates its parameters to the control unit such as operating conditions, smoke darkening levels, dirt levels and temperature levels. Each sensor can be addressed manually, by programmer or by fire detection control unit with protocol or with auto addressing by fire detection control unit with protocol.

FEATURES

- Applus approved in compliance with EN54-7 EN54-5 and EN54-17 standards
- Communication protocol
- Isolator integrated in each device
- Manual addressing via the programmer
- Auto addressing for devices on loops even with "T" connections
- Auto mapping function
- Reading of the voltage value at the terminals of the devices addressed
- Log of the total number of fire alarms
- Log of the 5 minutes preceding the fire alarm
- 2 TX channels and one RX channel
- 240 devices per loop
- Integrated hardware and diagnostic software with drift compensation
- Three-colour LED (red / green / yellow) controlled by the control unit visible at 360°
- Sensor Base Optional Remote LED mount
- Independent remote output
- FG901SHD Certificate n°1922-CPR-1121
- FG901SD1 Certificate n°1922-CPR-1122
- FG901HD1 Certificate n°1922-CPR-1123

GUARANTEED COMMUNICATION

The FG901 DETECTOR range modules are equipped with an integrated short-circuit isolator. This means that in the event of a failure on a loop or on a single device, communication with the devices themselves is not interrupted. Thus greater system reliability is guaranteed.

Model	Description
FG901SHD_AP	Optical and thermal sensor with digital communication protocol
FG901SD1_AP	Optical with digital communication protocol
FG901HD1_AP	Thermal with digital communication protocol



FG901SHD_AP



FG901SD1_AP



FG901HD1_AP

DRIFT COMPENSATION

The sophisticated drift compensation algorithm allows the sensor to compensate for the darkening due to the entry of dust and other contaminated substances into the optical chamber entrance. This technology maintains the detection threshold range uniform at the sensitivity established without any change in the detection threshold.

APPROVAL AND COMPLIANCE

The entire FG901 DETECTOR sensor range is Applus certified according to the EN54 standard parts 7.5 and 17.

CONSTRUCTION

The FG901 DETECTOR range has been designed to be simply disassembled to allow normal maintenance operations.

The external plastics are made of white ABS VO with a glossy finish, while the optical chamber is made of black POM and is equipped with protection against the intrusion of dust or small insects.

TECHNICAL SPECIFICATION

Device	FG901SHD_AP	FG901SD1_AP	FG901HD1_AP
Type:	Thermal and Optic	Optic	Thermovelocimetric optic
Certification body :	Applus	Applus	Applus
Certification :	EN54-5,EN54-7,EN54-17	EN54-5,EN54-17	EN54-7,EN54-17
Loop :	Up to 240 addresses available along 2Km cable *	Up to 240 addresses available along 2Km cable *	Up to 240 addresses available along 2Km cable *
Supply voltage :	27V	27V	27V
Stand by consumption :	90uA@27V	90uA@27V	90uA@27V
LED current consumption :	15ma	15ma	15ma
Operation temperature :	-30°C/+70°C	-30°C/+70°C	-30°C/+70°C
Humidity :	95% RH (without condensation)	95% RH (without condensation)	95% RH (without condensation)
Height with standard base :	48mm	48mm	48mm
Diameter :	92mm	92mm	92mm
Weight :	120g	120g	120g

CONSTRUCTION

The FG901 DETECTOR range offers OPTICAL, THERMAL OPTIC, THERMAL detection. OPTICAL, The optical smoke detection exploits the TIDALL effect, in the optical chamber there are two transmitters and a receiver not aligned with each other. The smoke creates a slight diffraction of the brightness inside the chamber that, if detected, generates an alarm.

THERMOVELOCIMETRIC OPTICAL, two thermistors have been introduced that measure temperature in degrees, offer optical and thermo-speed detection, a sophisticated algorithm uses both detection technologies to guarantee a high level of reliability and immunity to false alarms in Multisensor operation mode, the fire alarm intervenes through an algorithm that analyses the optical threshold in relation to the temperature increase (prEn54 29).

The sensor can also be programmed in AND mode, i.e. it is alarmed when both sections (optical and thermal) give The sensor can also be programmed in OR mode, i.e. it is alarmed when at least one section (optical or thermal) gives THERMAL the detection is carried out in two programmable ways: thermal at fixed temperature or thermovelocimetric.

SIMPLIFIED INSTALLATION

The installation of the sensor is very simple, the programming of the addresses takes place via the ONEPROGRAMMER programmer or through auto addressing, no DIP switches or rotary switches are used. Auto addressing for devices on loops also operates with "T" connections. In addition, the bases are equipped with an identification label and a short circuit spring which ensures continuity of the loop when the sensor is removed. The sensor also offers the possibility to be locked once inserted into the base to avoid unwanted disassembly.



Side View



Top View