



# DOD-220A

# DOD-220A-I

## Addressable Optical Smoke Detector

### Description

The new 200 series of addressable detectors has been developed using the most innovative technical advances. Its completely new design makes the 200 series one of the most elegant on the market, ideal for facilities in which the balance between functionality and aesthetics is necessary.

DETNOV's 200 range of analogue detectors is made up of 4 detector types, all of them available with and without isolator. They are a 58°C rise-of-rate detector, a 78°C heat detector, an optical detector and an optical-heat detector. All of them are compatible with DETNOV's CAD-150 family of analogue control panels.

The 200 series of analogue detectors' addresses are assigned through the PGD-200 programmer (Isolator version support auto addressing). The use of this tool saves double address mistakes, because the programmer automatically handles the address to be assigned.

Connections between the analogue system's detectors and modules must be made with a 2 x 1.5 mm<sup>2</sup> twisted and shielded cable with a maximum length of 2 Km (changing the section of the cable, number of element and using calculation software loop can reach up to 3500m). To meet the EN-54 requirements, the wiring must be done in a closed loop. Precise short-circuit isolators must be installed to facilitate the location of possible faults. The loop accepts up to 250 elements.

The DOD-220A smoke detector is based in an optical dark chamber, which, thanks to its design, avoids unwanted air flows and facilitates the guidance of the smoke to the optical sensor. The detection principle is based on the Tyndall effect; the detector goes into alarm status due to the scattered light caused by the smoke particles being received by the optical sensor. The camera is protected to avoid the entrance of dirt and insects. This detector also incorporates compensation algorithms which avoid false alarms due to the dirtiness of the optical chamber, postponing equipment maintenance.

The 200 series detectors require the Z-200 base in order to connect. This connection base includes a blocking option which avoids it being tampered with. A tool is needed to remove the detector from the base.

Detectors in this series have non-polarity technology, facilitating system wiring and saving a huge amount of time in commissioning the system.

The protected area is 60 m<sup>2</sup> and the maximum installation height is 12 meters.

### Features

- Elegant design and low profile
- Dirtiness compensation
- Dirtiness and insect protection
- Two-wire connection without polarity
- DTD-220A-I with isolator
- Remote indicator port
- Compatible with DETNOV's analogue fire control panel
- EN54-7 and EN54-17 approved
- Addresses from 1 to 250 in the loop

## Applications

DOD-220A smoke detectors are suitable for those areas in a fire detection system in which a fire will cause more heat than smoke, or in which the daily activity temperature is usually very high.

## Technical features

<b>Detector</b>	
Loop features:	
Operating voltage:	From 22 to 38VDC
Quiescent current consumption:	< 300 $\mu$ A
Alarm current consumption:	< 11 mA
<b>Connections</b>	
	2 x 1.5 mm <sup>2</sup> twisted and shielded cable to a Z-200 base
<b>Environment</b>	
Operating temperature:	From -10°C to +70°C
Relative humidity:	95% without condensation
IP index:	IP20
<b>Technical features</b>	
Head (height x $\varnothing$ ):	42 mm x 100 mm
Base (height x $\varnothing$ ):	5 mm x 100 mm
Material:	ABS
<b>Approvals</b>	
	DOD-220A Certification EN54-7
	DOD-220A-I Certification EN54-7 and EN54-17
	DOD-220A Certificate number: 0370-CPR-0881
	DOD-220A-I Certificate number: 0370-CPR-1859

## Dimensions

