TFDA-S2

Configurable optical smoke detector

ADDRESSABLE

Configurable optical smoke detector, can be used with analogue addressed or conventional control panels.
Optical smoke detection technology Tyndall effect. The detector integrates an NFC transceiver with which, by means of a smartphone and Tecnofire ID App, it is possible to configure the device and view: identification data, the alarm counter, the graph of the last alarm detected and the data required to manage the detector review service. Maximum analysis precision of smoke captured.
Control and dynamic compensation of optical chamber sensitivity, automatic management of maintenance threshold.
Programmable functions: 3 sensitivity levels, formula association and management criteria for TFBASE-SIREN or TFRIP-SMART.
Detector functional states can be used as operands in conditioning formulas controlled by the control panel.
RSC® management: programming, remote management and control. Double line isolator. Universal base mounting TFBASE01.
Protection rating IP22. ABS casing. Available colours white or black. Dimensions with mounting base (D x H) 100 x 52mm.
EN 54-7:2018 - EN 54-17:2005. Certification: 0051-CPR-3134.

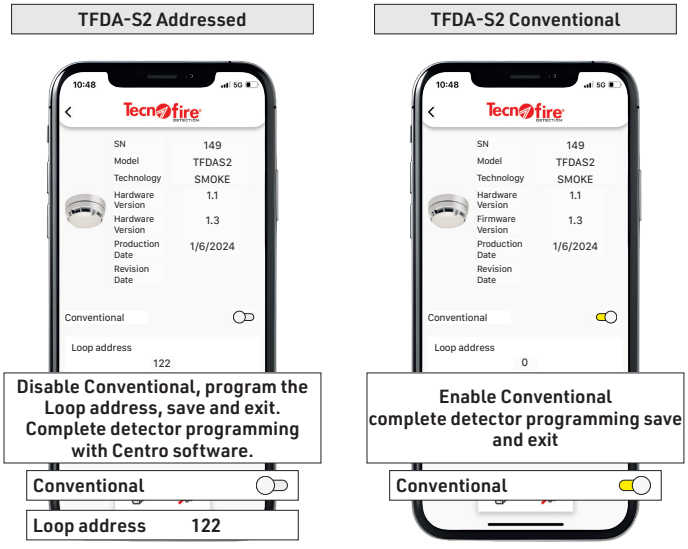
MODEL			RSC	NFC	EN 54-7 54-17	SMOKE	ID	OPERAND AND OPERATOR FORMULA	ABS BOX
Name	Item no.								
TFDA-S2	TF3TFDAS2	White colour							
	TF3TFDAS2BK	Black colour							

OBLIGATIONS AND NOTICES

The TFDA-S2 detector can be used with Tecnofire analogue addressable control panels and conventional control panels of any brand (subject to verification of compatibility of standby and alarm thresholds). In the planning and installation phases, the regulations in force must be observed and applied.

DETECTOR CONFIGURATION

The TFDA-S2 detector is configured with a smartphone equipped with NFC technology and the Tecnofire ID App.
The configuration determines the type of detector: Addressed or Conventional. The App can only perform all NFC tag reading and writing operations if the detector is not powered.

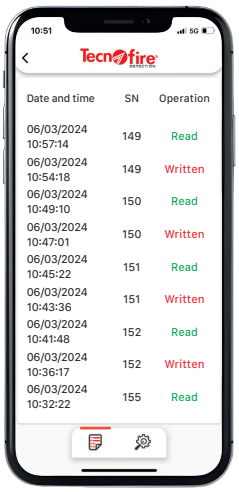


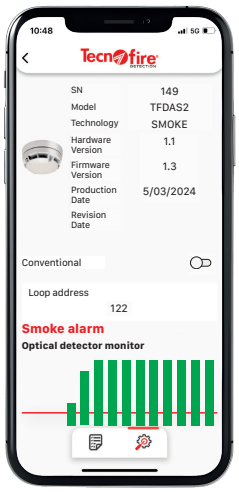
ADDRESSABLE

TFDA-S2 ADDRESSED

FUNCTIONS OF THE TECNOFIRE ID APP

The address of the detector can only be programmed with the Tecnofire ID App, the programming of the detector must be completed with the software programming Centro.
The App allows you to view all read and write operations performed on the detectors, the consultation of the list facilitates the tracking of the already assigned addresses. The detector stores a graph that depicts with a series of vertical bars, the trend of the last alarm event detected.
The alarm counter stores the number of events detected.
The alarm graph and counter can be viewed by reading the detector memory with the Tecnofire ID App.





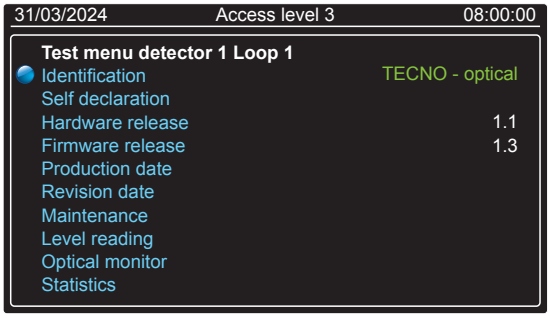
DIAGNOSTIC FUNCTIONS

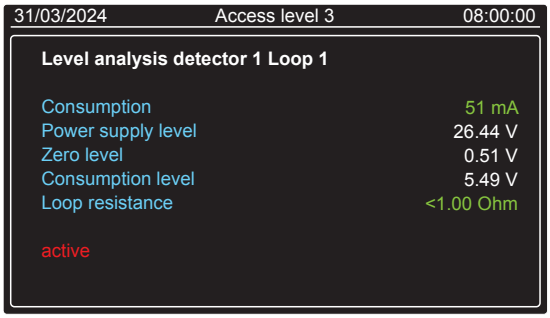
Tecnofire control units manage a set of specialised test and diagnostic functions for each type of detector.
The functions available for the detector TFDA-S2 are shown in the following table.

DIAGNOSTIC FUNCTIONS DETECTOR TECNO - optical	
Identification	Turns on the device's LEDs for its identification
Self declaration	Self-declaration of the detector type
Hardware release	Self-declaration of the hardware version
Firmware release	Self-declaration of the firmware version
Production date	Indicates the date of manufacture of the detector
Revision date	Indicates the revision date of the detector
Maintenance	Displays the percentage of chamber saturation
Level reading	Detection of electrical operating values
Optical monitor	View the optical detection graph
Statistics	Statistical values concerning communication
Activation	Activates the base sounder or Smart Repeater

Consumption
Power supply level
Zero level
Consumption level
Loop resistance

Strings sent
Errors
Percentage of success
Percentage of error
Latency

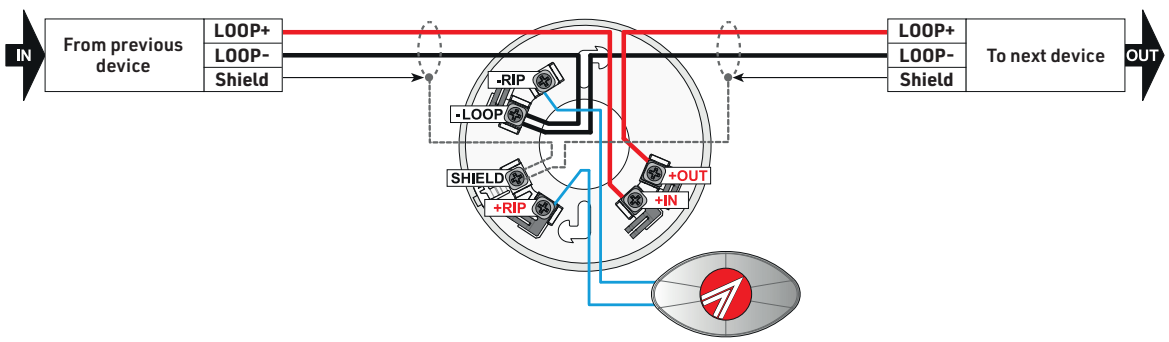




LOOP ISOLATOR

The detector is equipped with a line separator with double isolator. In the event of a short circuit in the Loop line, the separator intervenes by isolating the line section affected by the fault, ensuring the correct operation of the devices connected upstream and downstream. The intervention of the line separator preserves the regular operation of the loop and generates the fault signal "Separator open".

CONNECTION TO THE LOOP

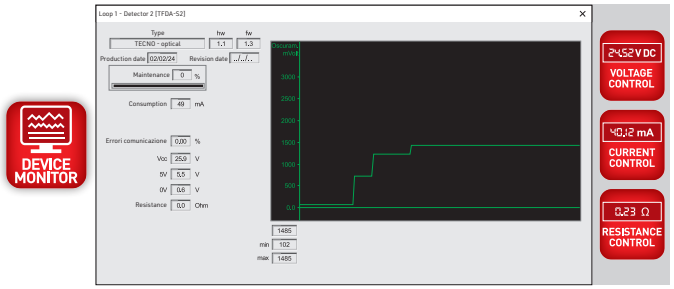


RSC® ANALYSIS FUNCTIONS

The Centro software is equipped with analysis tools with which it is possible to monitor the functioning of the detector.

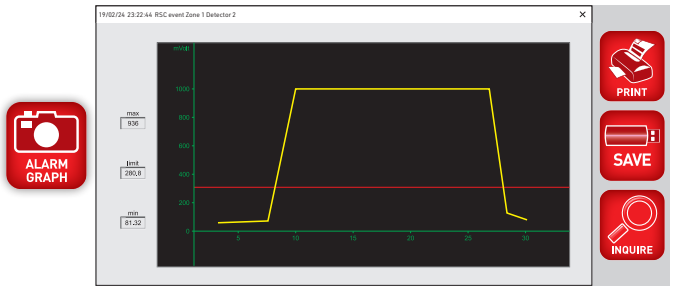
DEVICE MONITOR

The device monitor function panel displays:
- The data identifying the detector
- The maintenance threshold of the optical chamber
- The detector consumption
- The percentage of communication errors with the control panel
- The electrical reference values of the Loop interface
- The obscuration values detected by the optical camera
- The graph with the dynamic trend of the detected signal.



ALARM GRAPH

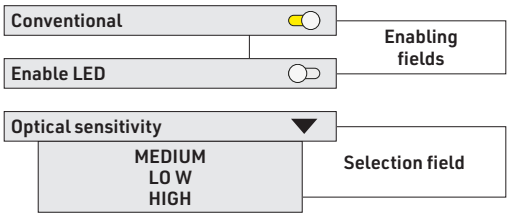
The alarm detected by the optical smoke detector is digitised in graphic form and stored in the event log of the control unit.
The alarm trace photo displays, the signal trend and the reference, minimum and maximum values of the detected alarm.
The analysis of the alarm trace photo allows the alarm event to be verified and investigated with objective tools.
The photos downloaded and archived by the Centro software can be saved to document the detected event.



TFDA-S2 CONVENTIONAL

FUNCTIONS OF THE TECNOFIRE ID APP

The conventional detector can only be programmed with the App.
The App identifies the detector model and displays the corresponding programming fields. The TFDA-S2 detector has three enabling and one selection field.
The detector stores a graph depicting, with a series of vertical bars, the trend of the last alarm event detected (optical detector only).
The alarm counter stores the number of detected events.
The graph and alarm counter can be viewed by reading the detector memory with the Tecnofire ID app.



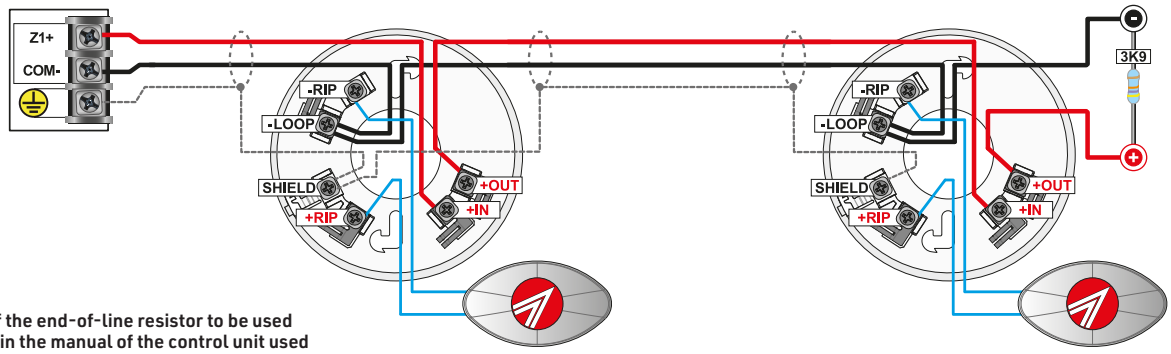
NCF-Detectors

Scan the QRCode to view the programming video tutorial.

SHORT-CIRCUIT ISOLATOR

The detector is equipped with a line separator with double isolator. In the event of a short circuit in the line, the separator intervenes by isolating the detector and generating the line fault.

CONNECTION TO THE CONVENTIONAL ZONE



The value of the end-of-line resistor to be used is indicated in the manual of the control unit used

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Accessories

	**TFRIP-R**	Optical repeater, red LED. 360° visibility. Surface mounting. ABS casing. IP22. White colour. Dimensions (L x H x D) 78 x 45 x 25mm.	**Item no. TF3TFRIPR**
	**TFRIP-SMART**	Smart optical repeater, red LED. 360° visibility. Formula-managed signaling. 3 wire connection to detector. ABS casing. IP22. Colour white. Dimensions (W x H x D) 78 x 45 x 25mm.	**Item no. TF3TFRIPSMART**
	**TFBOX-B**	Junction box for fixing a detector base. Fittings for 20mm tubes. ABS casing. White colour. Dimensions (D x H) 101 x 38mm.	**Item no. TF6TFBOXB**
	**TFBOX-SB / TFBOX-SBWP**	Junction box for mounting base TFBASE01. Plugs for PG9 pipe couplings.	**Item no. TF5TFBOXSB (IP44)** **Item no. TF5TFBOXSBWP (IP65)**
	**TFBASE01 / TFBASE01-BK**	Mounting base. Material ABS V0. Dimensions (D x H) 100 x 19mm.	**Item no. TF6TFBASE01N (white)** **Item no. TF6TFBASE01BKN (black)**
	**TFBASE-SIREN**	Mounting base for addressable detectors, with integrated acoustic alarm device. Polycarbonate casing. White colour. Dimensions (D x H) 108 x 52mm.	**Item no. TF6TFSOUNDERN**
	**TFDA-REMOVAL**	Tool for removing Tecnofire detectors. Articulated head to facilitate the removal and fitting of the detector. Standard telescopic pole coupling.	**Item no. TF3TFDAREMOVAL**
	**TFRIP-R INC**	Optical repeater, red LED. 360° visibility. Flush mounting. Protection rating IP67.	**Item no. TF3TFRIPRINC**

TFDA-S2 addressed - Technical and functional specifications

General information	Configurable optical smoke detector	**TFDA-S2**
	Detector configuration	**Addressable or conventional**
Management App	iPhone - Android	**Tecnofire ID**
	NFC Protocol	**Encrypted**
	Programming	**Reading / Writing**
	Logged data	**Optical alarm graph** **Alarm counter** **Detector ID** **Revision management**
Programmable functions	Polling frequency	**Programmable**
	Polling signaling Led	**Excludable**
	Sensibility	**3 levels**
	Formula association	**Programmable**
	Operating criterion	**Programmable**
Loop interface	Addressing	**Software**
	Communication protocol	***FIRE-SPEED***
	Loop isolator	**Double insulator**

Electrical specifications	Nominal voltage	**24V DC**
	Operating voltage	**18V...30V DC**
	Consumption	**400µA @ 24V DC**
	Consumption in alarm	**5mA @ 24V DC**
	Repeater output	**9,4V DC 3mA**
Physical specifications	Operating temperature	**-10°C...+55°C**
	Relative humidity (non-condensing)	**10%...93%**
	Protection class	**IP22 (EN 60529)**
	Casing	**ABS**
	Dimensions (H x D)	**100 x 52mm**
	Weight	**100g**
Conformity	Standards	**EN 54-7:2018** **EN 54-17:2005**
	System Compatibility	**EN 54-13:2020**
	Certification number	**0051-CPR-3134**
	Year of CE marking	**23**
	Number of declaration of performance	**052_TFDA-S2**
	Notified body	**IMQ**

N.B. Declarations of conformity and performance are available on www.tecnofiredetection.com

CE 0051 IMQ

Tecnoalarm ISO 9001 CERTIFIED

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