TFT-7

Repeater Panel

TFT-7		RSC	7" COLORS DISPLAY	TOUCH SCREEN	VOICE SYNTHESIS	FLASH MEMORY	USB PORT	ABS V0 BOX

Repeater panel for control and management. The panel is provided with multi-function user interface consisting of: 7" touch screen TFT display, speech synthesis with customizable multilanguage vocabulary, audible signal device, contextual, vocal, and graphic Help function callable by the user.
Multilingual management: the keyboard provides textual and speech synthesis information in two languages.
The TFT-7 panel allows to decentralize and extend up to 16 points the management and control of the System.
Integrated flash memory for customization of the graphical interface and vocabularies, manageable from a personal computer as an external disk, via USB interface. With the software licence ABIL-TFTS, the panel TFT-7 can become a synoptic panel TFT-7S. RS485 bus connection. Surface-mount, recessed, or on table stand. Refined design, ultra-thin line. ABS V0 enclosure. Degree of protection IP40.
Dimensions (L x H x P) 225 x 157 x 35mm. Red cover (interchangeable).

Item no. TF2TFT7-UK

OBLIGATIONS AND NOTICES

The repeater panel TFT-7 can be used only if connected to an expansion serial bus of the Tecnofire control units models: TFA1-298, TFA2-596, TFA4-1192.
During design and installation, it is necessary to observe and apply the applicable regulations.

OVERVIEW

The repeater panels allow to expand and decentralize the management and system information stations.
The panels belong to the category "Expansion Devices"; the stations can manage up to 16 expansion devices.
The repeater panels can be connected to the control unit via either Master or Slave Bus, in either open loop or closed loop mode. The system buses are supervised: in closed loop mode, the control unit is able to detect and report the connection failure, maintaining the normal operation of the network.

ADDRESSING

The ID of the Panel can be set in digital mode via the specific menu. The numeric range of the allowed addresses for the expansion devices is 01 to 16.
The address set must be enabled by the relevant menu available on control unit.

Dispositivi di espansione - Expansions - Extensions - Expansores
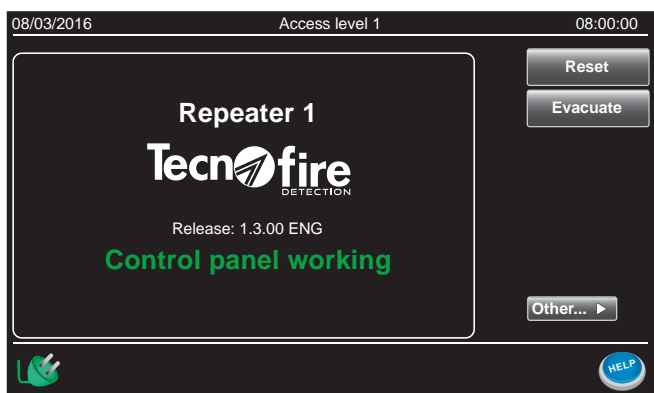
FUNCTION KEYS

The user interacts with the repeater through the touch screen. The display shows the function keys based on the functional context. The function of the keys that from time to time become available is described in the table.

RESET	Restores the idle state of the firefighting system	FLOOR PLANS	Displays key maps only available on model TFT-7S
EVACUATE	Starts the ¨Evacuation¨ procedure	ESC	Function exit key or proposed view
ACK	Acknowledges the following signals: Warning, Alarm, Technical Alarm and Fault	OK	Function acceptance key or proposed view
MONITORED	Enables and/or disables the Manned operation mode	BACK	Deletes the last item entered to correct typing errors
STOP/RESET SIR.	Mutes the alarm signals ¨General Siren¨	▲ ▼	List scrolling pointer keys
Other... ▶	Displays the numeric keypad to type the access codes	⏫ ⏬	Fast scrolling pointer keys
HELP	HELP, displays the context-sensitive help information.	ITA	Second language selection (visible only if managed)

NOTIFICATION ICONS

The TFT-7 repeater panel reports the functional states of the system through the display of graphic icons that depict the functional states of the system. The display shows the icons in a specific area on the bottom left. The icons dynamically depict the functional states of the system, at their onset, and then disappear when the normal operating conditions are restored.
The function of the icons that each time become viewable is described in the table.

	Signalling state Mains power OK		Signalling state Excluded device		Signalling state Detection devices communication fault
	Signalling state Mains power KO		Signalling state System fault		Signalling state Detectors maintenance request
	Signalling state System generic fault		Signalling state System event		Signalling state Delays reset
	Signalling state Technological alarm in progress		Signalling state Battery charge fault		Signalling state Phone notification in progress or occurred
	Signalling state Fire warning in progress		Signalling state Battery low		Signalling state Manned system
	Signalling state Fire alarm in progress		Signalling state Battery fault		Signalling state Communication fault
	Signalling state Alarm of device under test		Signalling state Zone under test		Signalling state Leakage to ground
	Signalling state Sirens disablede				

Tecnofire DETECTION

Repeater Panel

REPEATER PANEL FUNCTIONS

Via the repeater panel, you can perform the system management functions shown in the table.

Repeater panel functions	Enables/disables the "Monitored System" mode
	Enables the "Evacuation" alarm mode
	Acknowledges the alarm signals
	Mutes and resets the sirens
	Resets the fire system

DIAGNOSTIC FUNCTIONS

The control unit manages a set of specific diagnostic functions for the expansion devices.
The diagnostic functions that are available for the repeater panel allow to:
- Identify the equipment and versions of the resources.
- Read the statistics from the communication monitor
- Monitor the value of the power voltage.

08/03/2016	Access level 3	08:00:00

Menu Test Repeater 1
Versions
Statistics
Power monitor
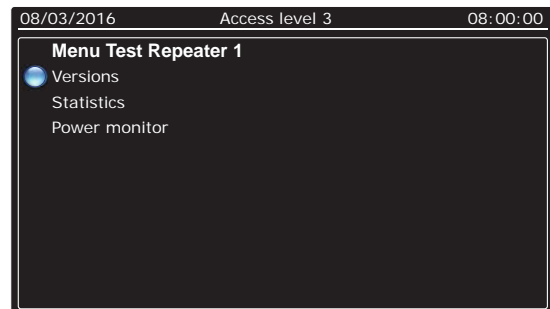
Repeater test	
Versions	Resource equipment and version
Statistics	Communication monitor statistics
Power monitor	Power supply voltage monitor

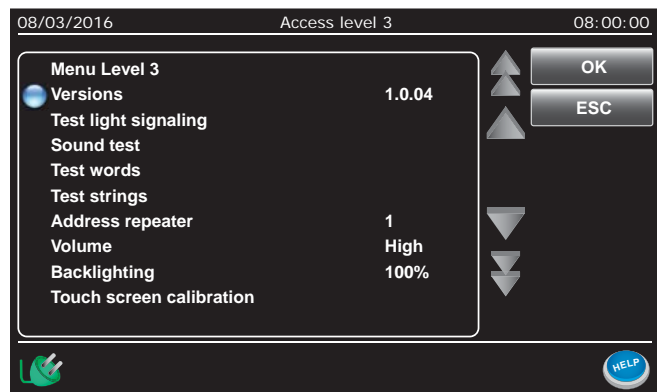| Versions	
Firmware	Device firmware version
Strings	Set of writings used
Font	Font type
Alternative font	Alternative font type
Vocabulary	Vocabulary version
Alternative vocabulary	Alternative vocabulary version
Serial number	Serial number of the device
Options	Enabling string

Statistics	
Strings sent	Communication frames counter
Errors	Faulty frames counter
Percentage of success	Percent value
Percentage of errors	Percent value

Power supply monitor	
Supply voltage	Detects the voltage value

LOCAL SETTING MENU

The operation of the repeater panel TFT-7 can be set via the local setting menu, which enables to set and/or change its operating parameters. Only users provided with Level 3 password can access the menu.

08/03/2016	Access level 3	08:00:00

Menu Level 3
Versions 1.0.04
Test light signaling
Sound test
Test words
Test strings
Address repeater 1
Volume High
Backlighting 100%
Touch screen calibration

OK   ESC   HELP

Menu	Function
Versions	Information on the equipment of the device
Luminous signal test	Luminous effectiveness of the signals
Sound test	Efficiency of the speakers in siren mode
Words test	Efficiency of the speakers in voice mode
Writing test	Display/listening of vocabulary resources
Repeater address	Device address settings
Volume	Speaker volume adjustment
Backlighting	Display backlighting adjustment
Touch screen calibration	Touch screen display calibration

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NOTIFICATION SCREENS

When the control unit gets an alarm notification, the repeater panel enables the speaker and displays in intermittent mode text and icons identifying the category of the alarm: ALARM, PREALARM, TECHNICAL ALARM or FAILURE.
The screen is completed with all relevant information to identify the source of the alarm.
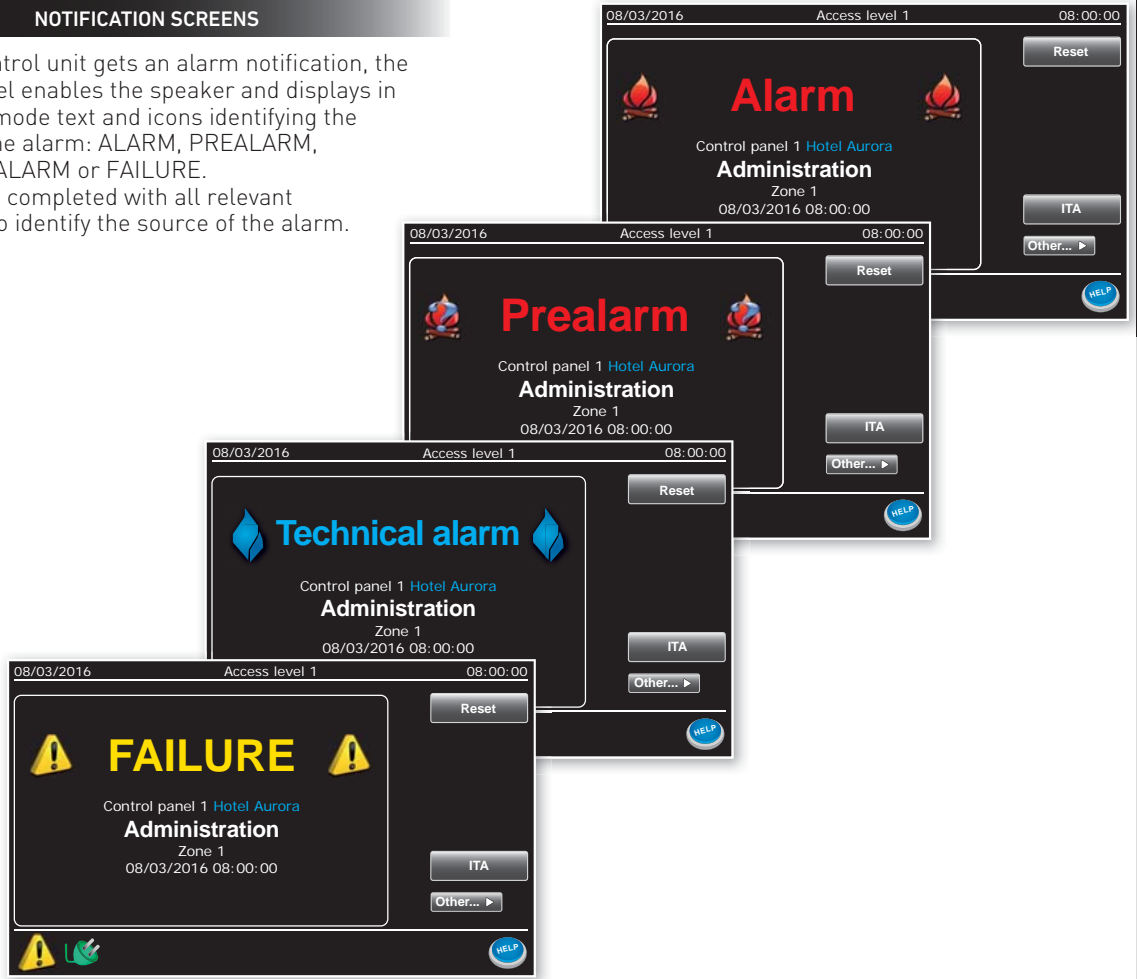
NOTIFICATION MODES

Alarm notification is divided into several phases. When the control unit receives an alarm, the repeater panel enables the speaker in siren mode and displays the (flashing) message indicating the type of event. The operator acknowledges the event by pressing the "Mute" button. The muting causes the disabling of the speaker and the display of the detailed list of the events contained within the folder of the acknowledged event, by selecting an event and pressing the "Mute" button, the voice synthesis that enunciates the selected event is activated. In the case of an alarm and if the zone has an associated alarm plan, by pressing again the "Mute" button, a window appears that contains the text of the alarm plan that is associated with the Zone.
In the lower area, the display shows the 6 folders in which the events are stored according to their category. The folders remain visible up the next reset of the control unit. The reset erases all the events contained in the folders and resets the counters.


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Repeater Panel

EVENT LOG FOLDERS

The acknowledged events are stored in the relevant folders, The folders are automatically displayed whenever an event is stored. A counter displays the number of events stored in the folder.
The visibility of folders, counters and their contents are erased on system reset. The events are stored in the "Event history" of the control unit.

Specializzazioni delle cartelle archivio			
Alarm 0000	Fire alarm events listed by Zone	Failure 0000	Zone and system fault events
Preal. 0000	Fire warning events listed by Zone	Excl. 0000	Lists the out of service devices
Tech.Al 0000	Technological alarm events listed by Zone	Test 0000	Recorded alarm events from devices under test

Notes: 1) The folders can contain up to a maximum of 9999 events.
2) The contents of the folders is deleted and the counters are reset each time you run a reset of the control unit.
3) We remind that the events remain stored in the "Event History" of the control unit.

TERMINAL BOX AND DIP-SWITCHES
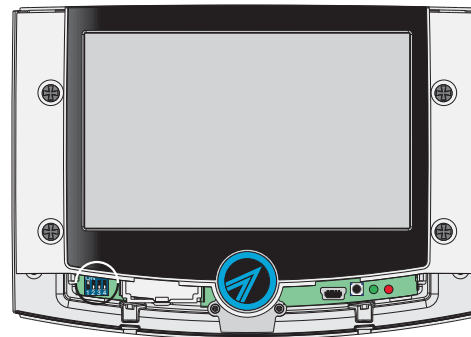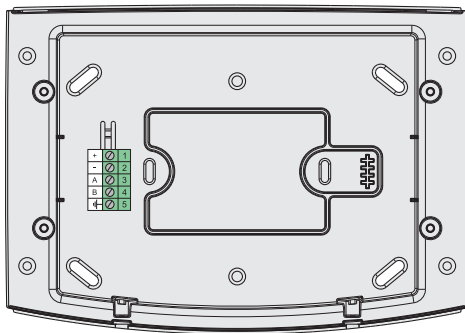
1	+24V DC	Serial line power supply positive	
2	-	Serial line power supply negative	
3	A	Serial line channel A	
4	B	Serial line channel B	
5	⏚	Shield anchor	

1	ON	Terminated bus line	
	OFF	Non-terminated bus line	
2	ON	Reserved use, leave in OFF position	
	OFF		
3	ON	BOOT function enabling	
	OFF	Normal operation	
4	ON	CLR function enabling	
	OFF	Normal operation	

CONNECTION TO THE SERIAL LINE

The connection of the expansion devices is carried out on either the Master Bus or the Slave Bus of the control unit. The connection can be realized in open loop or closed loop. The connection line is balanced, the setting of the balance is performed in the control unit by means of the jumpers and on the repeater panels via the dip 1 (see connection modes diagrams).
For the connection of the devices on the Bus lines RS485 (Master Bus and Slave Bus) it is essential to use: twisted multipole signal and power supply shielded cable with flexible wires. The maximum length allowed for Bus lines of the system is 1000 mt. You can achieve greater distances using a fibre optic connection instead of an electric cable. For reasons of electrical safety and to improve the immunity to electrical interference, the shielding of the cables must be connected in order not to stop their path and must be connected to the ground terminal only inside the fire detection control unit.

Bus extension / cable specifications		
Max. extension 1000 m	Minimum section	Electrical resistance
Power supply wires	2 x 1.5mm²	<13.3 Ohm x Km
Signal wires	2 x 1mm²	<19.5 Ohm x Km

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OPEN LOOP CONNECTION

The diagram shows the connection of the repeater panels to the control unit, in open-loop mode.
In particular the locations of the jumpers of the control unit and of the dips 1 of the repeaters, used for Bus RS485 termination/line balancing are highlighted.
With this connection set up, the jumpers JP8, JP10 and JP11 of the system must be closed.
The dip switch 1 of the last repeater panel connected on the line must be set to ON, the dip switch 1 of any other panels must be set to OFF.
The shield of the connection cable must be connected to the ground just inside the cabinet of the control unit, the continuity of the connection (series) of the shield must be maintained within each device connected on the serial line. On the last device the shield must not be connected, it must be left loose.
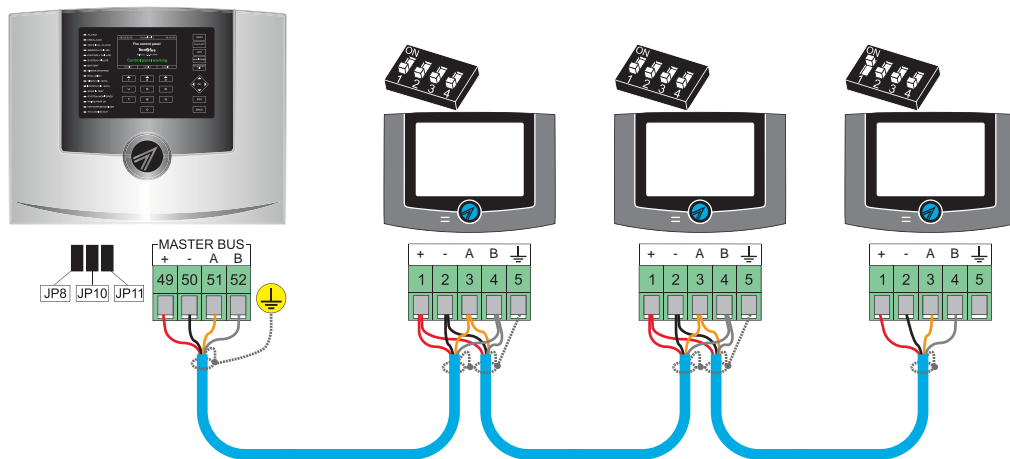
CLOSED LOOP CONNECTION

The diagram shows the connection of the repeater panels to the control unit, in closed-loop mode. In particular the locations of the jumpers of the control unit and of the dips 1 of the repeaters, used for Bus RS485 termination/line balancing are highlighted. With this connection set up, the jumpers JP8, JP10 and JP11 of the system must be closed. The dip switch 1 of all repeater panels connected to the line must be set to OFF.

The shield of the connection cable must be connected to the ground just inside the cabinet of the control unit, the continuity of the connection (series) of the shield must be maintained within each device connected on the serial line. The shield of the return cable to the control unit must not be connected, it must be left loose.
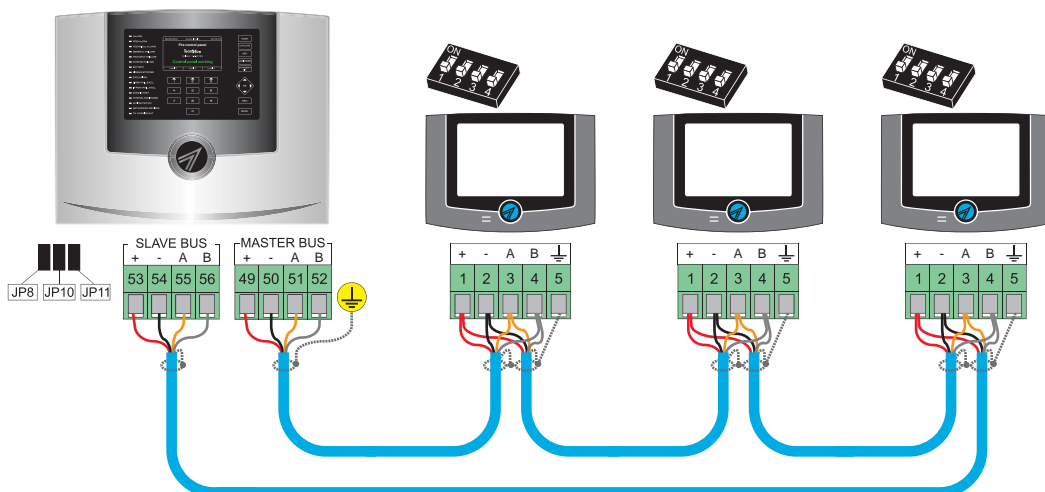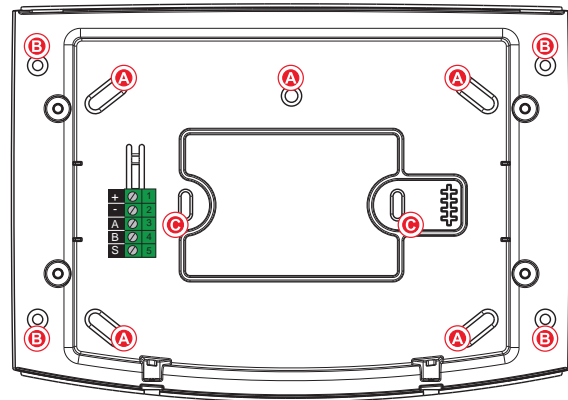
INSTALLATION

The repeater can be wall-mounted, can be applied on a wall box type 503 or can be mounted in recessed position using the optional box TFBASE-TFT7L.
The removable connection terminal remains integral to the base from which it can be detached to facilitate wiring.

Ⓐ Mounting holes for wall mounting

Ⓑ Mounting points for recessed mounting

Ⓒ Mounting slots on recessed box type 5033

Mounting on optional table support TFBASE-TFT7L

L 225mm

H 157mm

D 35mm

D 16.5mm

Wall mounting

Flush mounting

TFT-7 - OPTIONAL LICENSES

TFABIL-TFTS	[32 FLOOR PLANS] [32 ICONS]
	Software licence that transforms a repeater panel TFT-7 into a panel TFT-7S. The license allows the management of layouts and the customization of the user interface.
	Item no. TF2TFABILTFTS

Repeater Panel

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ACCESSORI DEDICATI		
TFT7-LCGT	Titanium grey replacement cover	**Item no. TF2TFT7LCGT**
TFT7-LCG	Metal grey replacement cover	**Item no. TF2TF7LCG**
TFT7-LCN	Black replacement cover	**Item no. TF2TFT7LCN**
TFT7-LCB	White replacement cover	**Item no. TF2TFT7LCB**

Table support for repeater panel TFT-7. The support offers an effective ergonomic solution in all situations where the repeater panel must be placed on a work bench. Continuous tilting adjustment. Refined design. ABS V0 enclosure. Degree of protection IP40.
Base plate dimensions (wxh) 200 x110mm. White.

TFBASE-TFT7LT	**Item no. TF2TFBASETFT7LT**

Box for recessed mounting of the repeater panel TFT-7. The box with a depth of only 35 mm can be mounted on walls or fastened to walls and plasterboard panels.
Dimensions (L x H x P) 195 x 147 x 35mm.
N.B. the flush mounting box is always included.

TFBASE-TFT7L	**Item no. TF2TFBASETFT7L**

Mini USB interface cable for local programming of the repeater panels TFT-7

TFCM-USB	**Item no. TF2TFCAVOMINIUS**

TFT-7 - Technical and functional specifications

Overview	Device Name	**TFT-7**
	Description	**Repeater Panel**
	Communication protocol	***FIRE-BUS***
	Addressing	**Repeater Panel**
	Connection	**Bus RS485**
User interface	Display	**Colour TFT7" resistive touch screen**
	Resolution	**800 x 480 pixel**
	Functional information	**Dynamic iconography**
	Voice synthesis	**Multilingual vocabulary**
	Speaker	**Multi-Function**
	Contextual help	**Graphic and voice**
	Graphical interface	**Customisable**
Hardware specifications	Data memory	**Flash 1Gbit**
	Management interface	**USB Port**
Electrical specifications	Power supply	**From Serial Bus**
	Rated voltage	**24V DC**
	Operating voltage	**18V...30V DC**
	Typical draw (idle)	**90mA @ 24V DC**
	Max draw (when transmitting)	**240mA @ 24V DC**
Physical specifications	Operating temperature	**+5°C...+40°C**
	Relative humidity	**10%...93% (non-condensing)**
	Protection degree	**IP40**
	Enclosure	**ABS V0**
	Dimensions (L x H x D)	**225 x 157 x 35mm**
	Weight	**350g**
Conformity	Year of CE marking	**14**
	Approved for use in combination with control units TFA1-298, TFA2-596 and TFA4-1192	

N.B. The declarations of conformity and performance are available on the website: www.tecnofiredetection.com

by Tecnoalarm