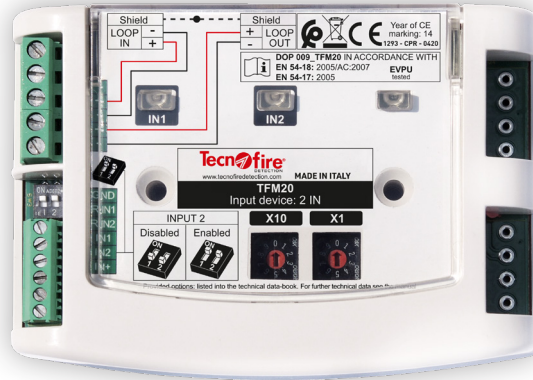


Addressed module 2 inputs

ADDRESSABLE



Addressable module equipped with 2 inputs, individually identified by the system. Inputs connection in Alarm or Fault mode. Programmable operating criteria. 2 outputs for optical repeaters. 2 input status indicator LED. Module operating statuses can be used as operands in formulas. RSC® management: programming, remote management and control. Loop connection. Dual short-circuit isolator. Fixing on a surface or on a DIN bar with TFDIN accessory. Protection rating IP4x. ABS casing. White colour. Dimensions (L x H x D) 112 x 78 x 25mm. Approved EN 54-18:2005/AC:2007 - EN 54-17:2005. Certification: 1293-CPR-0420.

MODEL		RSC	EN 54-18 54-17	2 INPUTS	2 LOGICAL UNITS	OPERAND FORMULA	ABS BOX
Name	Item no.						
TFM20	TF4TFM20						

OBLIGATIONS AND WARNINGS

The TFM20 module can only be used if connected to a detection loop of a Tecnofire Analog Addressable control panel. During the design and installation phases, it is mandatory to observe and apply the regulations in force.

LOGICAL UNITS

The module consists of two physical/logical units (two inputs). It is possible to exclude one of the two inputs (Input 2) from operation; in this case, the module will consist of a single physical/logical unit: Input 1. The tables show the identification addresses assigned to each unit based on the chosen configuration (one or two physical/logical units).

ADDRESSING

The physical identification address of the module is programmed using the two decimal rotary switches visible under the transparent cover. Each switch is marked by a label indicating the digit that makes up the physical address number: X10 for tens and X1 for units. The physical address programmed on the module is assigned to Logical Unit 1; the address of the second logical unit is assigned automatically by adding one unit to the physical address, as shown in the table. The numerical range for module addresses is from 01 to 99. Warning: programming address No. 00 effectively excludes the module from operation, but its current consumption still impacts the Loop.

LINE SEPARATOR

The module is equipped with a line separator featuring a dual isolator. In the event of a short circuit on the Loop line, the separator triggers to isolate the section of the line affected by the fault, ensuring the correct operation of the devices connected upstream and downstream. The intervention of the line separator preserves the regular functioning of the loop and generates a "Separator open" fault signal.

2 LOGICAL UNITS	LOGIC UNIT 1	PHYSICAL ADDRESS
	Input 1	
2 INPUTS	LOGIC UNIT 2	LOGICAL ADDRESS
	Input 2 included DIP 1 and DIP 2 set to ON	Physical address XX + 1

1 LOGICAL UNIT	LOGIC UNIT 1	PHYSICAL ADDRESS
	Input 1	
1 INPUT	LOGIC UNIT 2	LOGICAL ADDRESS
	Input 2 excluded DIP 1 and DIP 2 set to OFF	Logical address Not assigned



TECNO - INPUT MODULE PROGRAMMING

One of the eight available operating criteria can be associated with the TECNO-input module. The status of the inputs is displayed by the IN1 and IN2 monitor LEDs.

The two inputs are equipped with their respective outputs for managing remote optical indicators.

CONTACT TYPE	
ACTIVATE ALARM	EOL RESISTOR (FAILURE)

FUNCTIONAL CRITERIA	
Generate alarm	The activation of the input triggers an alarm
None	The activation of the input does not trigger direct actions; this criterion can be used within a logic formula
Generate acknowledgment	Non-EN 54 function - The activation of the input silences the current event
Generate reset	Non-EN 54 function - The activation of the input triggers a system reset
Stop/reset sirens	Non-EN 54 function - The activation of the input silences and restores the system's siren outputs
Feedback	The activation of the input is used to verify the execution of a command (Feedback)
Stop/reset sirens - status	Non-EN 54 function - The activation of the input follows the status of the Silence/Restore Sirens command
Exd./reset output - status	Non-EN 54 function - The activation of the input follows the status of the Exclude/Restore Outputs command

TEST FUNCTIONS

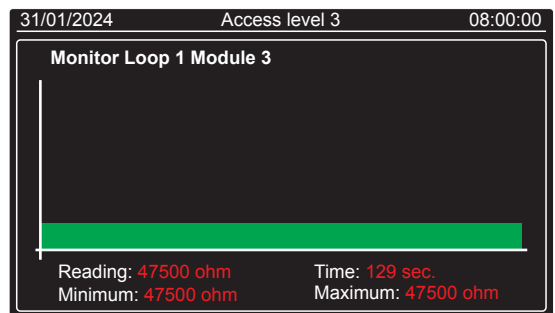
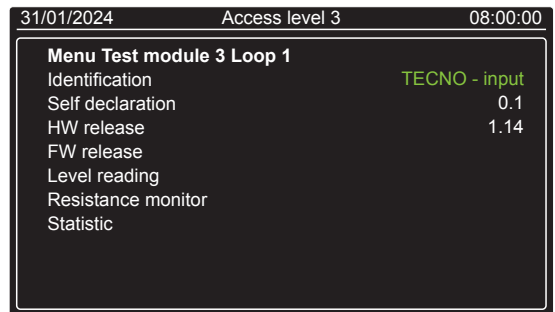
Tecnofire control panels manage a series of specialized Test and diagnostic functions for each type of module.

The functions available for the TECNO-input module are indicated in the following tables.

TECNO-input MODULE DIAGNOSTIC FUNCTIONS	
Identification	Turns on the device LED for identification
Self declaration	Self declaration of the module type
HW release	Self declaration of the hardware version
FW release	Self declaration of the firmware version
Level reading	Detection of operating electrical values
Resistance monitor	Line termination resistance measurement monitor
Statistic	Statistic/functional values related to communication

Consumption
Power supply level
Zero level
Consumption level
Loop resistance

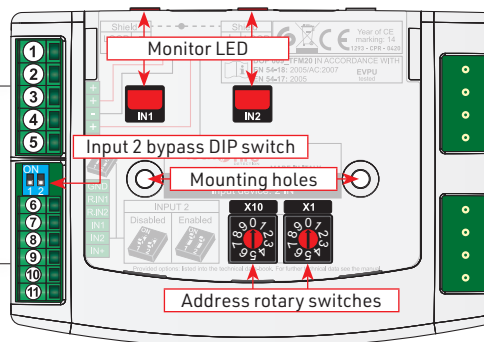
Strings sent
Errors
Percentage of success
Percentage of errors
Latency



OVERVIEW

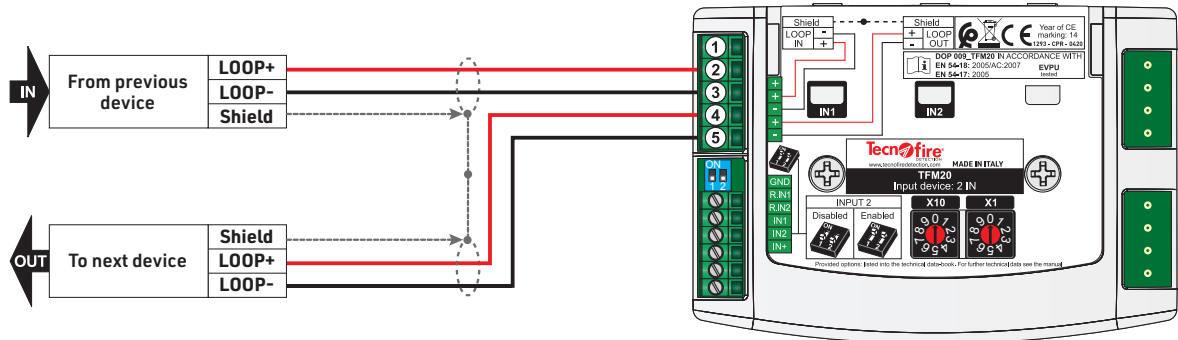
1	Input Loop + (non-isolated)
2	Loop input +
3	Loop input -
4	Loop output +
5	Loop output -

6	Negative reference for optical repeaters
7	Optical repeater output 1
8	Optical repeater output 2
9	Input 1
10	Input 2
11	Positive inputs reference



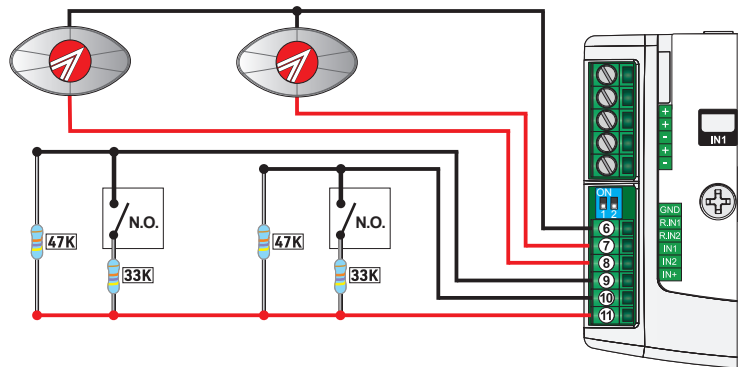
INPUT MONITOR LED	
Loop Monitor	Flashes if not disabled
Signaling	LED ON

CONNECTION TO THE LOOP

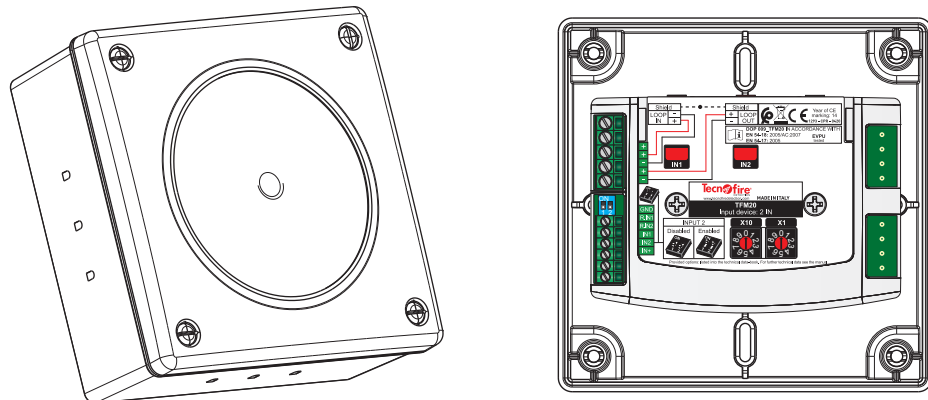


INPUTS CONNECTION

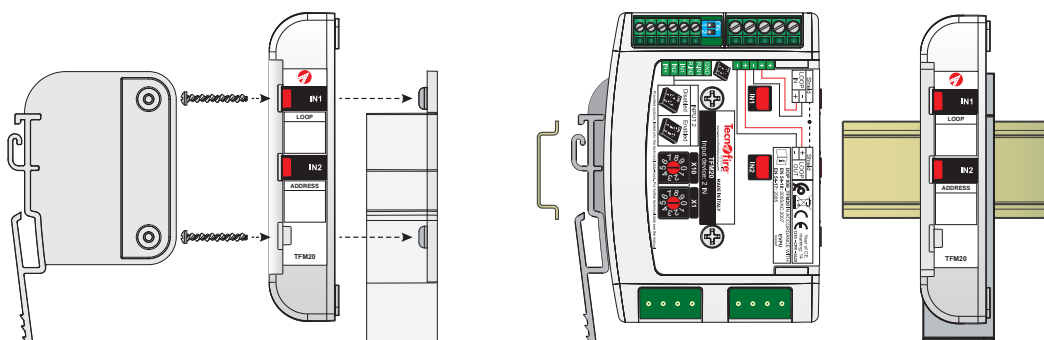
INPUT FUNCTION / OPERATING STATES	
ACTIVATE ALARM	EOL RESISTOR (FAILURE)
Fault (short circuit)	Fault (short circuit)
Alarm	General fault
Standby	Standby
Fault (open circuit)	Fault (open circuit)



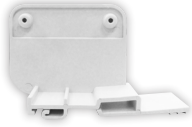





ACCESSORY - TFBOX-M



ACCESSORY - TFDIN



Accessories

	<p>TFDIN</p> <p>Support bracket for mounting standard format addressable modules, on DIN omega bar. ABS material. White colour.</p> <p>Item no. TF5TFDIN</p>		<p>TFRIP-R</p> <p>Optical repeater, red LED. 360° visibility. Surface mounting. ABS casing. IP22. White colour. Dimensions (L x H x D) 78 x 45 x 25mm.</p> <p>Item no. TF3TFRIPR</p>
	<p>TFBOX-M</p> <p>Junction box with fixing templates for addressable modules. ABS casing. White colour. Dimensions (L x H x D) 136 x 136 x 63mm.</p> <p>Item no. TF5TFBOXM</p>		<p>TFRIP-V</p> <p>Optical repeater, green LED. 360° visibility. Surface mounting. ABS casing. IP22. White colour. Dimensions (L x H x D) 78 x 45 x 25mm.</p> <p>Item no. TF3TFRIPV</p>
	<p>TFRIP-R INC</p> <p>Optical repeater, red LED. 360° visibility. Flush mounting. Protection rating IP67.</p> <p>Item no. TF3TFRIPRINC</p>		<p>TFRIP-G</p> <p>Optical repeater, yellow LED. 360° visibility. Surface mounting. ABS casing. IP22. White colour. Dimensions (L x H x D) 78 x 45 x 25mm.</p> <p>Item no. TF3TFRIPG</p>

Technical and functional specifications

General information	Addressed module 2 inputs	TFM20	Physical specifications	Operating temperature	-15°C...+70°C
	Available logical units	2		Relative humidity (non-condensing)	10%...93%
Programmable functions	Polling frequency	Programmable		Protection class	IP4x (EN 60529)
	Polling signaling LED	Excludable		Casing	ABS
	Functional criteria	8 mode		Dimensions (L x H x D)	112 x 78 x 25mm
	Input function	Generates alarm or Generates fault		Montaggio su guida DIN	TF-DIN Accessory Size: 1.6 modules
	Generates evacuation alarm	Programmable	Weight	165g	
Loop interface	Addressing	2 rotary switch	Conformity	Standards	EN 54-18:2005/AC:2007 EN 54-17:2005
	Occupied addresses	1		System compatibility	EN 54-13:2020
	Communication protocol	FIRE-SPEED		Certification number	1293-CPR-0420
	Loop isolator	Double insulator		Year of CE marking	14
Specifications Inputs / Outputs	Input current consumption in alarm	2.3mA @ 24V DC		Number of declaration of performance	009_TFM20
	Output for optical repeater	9.4V DC 3mA		Notified body	EVPU
Electrical specifications	Nominal voltage	24V DC			
	Operating voltage	18V...30V DC			
	Consumption	500µA @ 24V DC			

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



EVPU
Tested



Tecnofire
DETECTION
by Tecnofire S.r.l. - Via Ciriè 38 - 10099 - San Mauro T.se - Torino (Italy)
Manufacturing plant: Strada del Cascinotto 139/54 - 10156 - Torino (Italy) - www.tecnofire.com

The product features can be subject to change without notice.

MADE IN ITALY

TFM20 - DATA SHEET - REL. 2.0