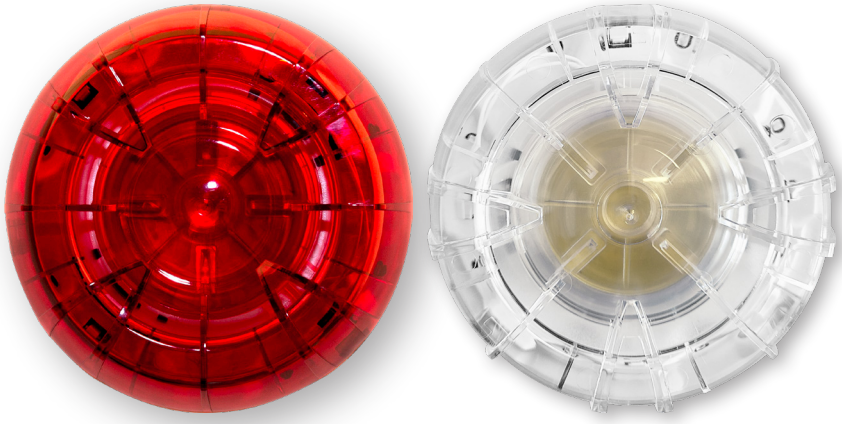
TFIS01

Addressable optical-acoustic alarm device

ADDRESSABLE



Optical-acoustic warning device for signaling fire alarm VID. Sound pressure 102dB(A) @ 1m. Type A for indoors.
Dual address for operation duplication. Programmable functions: 6 operating criteria, 64 sound modes, volume adjustment 2 levels, activation time and delay, flashing excluded, activation. Signaling activation subject to formula.
RSC® management: programming, remote management and control. Loop connection. Dual short-circuit isolator.
Mounting with universal base TFBASE01. Protection rating IP22. Operating temperature -15°C...+70°C. PC-ABS casing.
Red or white optical diffuser colour. Dimensions (D x H) 120 x 65mm. Approved EN 54-3:2001 + A1:2002 + A2:2006 - EN 54-17:2005.
Certification: 1293-CPR-0422.

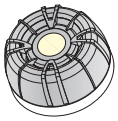
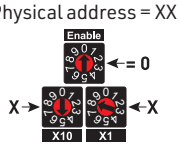
MODEL			RSC	EN 54-3 54-17	VID VISUAL INDICATION DEVICE	SOUND LEVEL 102dB(A) @1m	2 LOGICAL UNITS	OPERATOR FORMULA	PC ABS BOX
Name	Item no.								
TFIS01	TF5TFIS01	Optical diffuser red							
	TF5TFIS01W	Optical diffuser white							

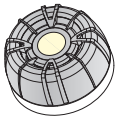
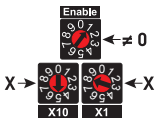
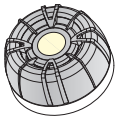
OBLIGATIONS AND NOTICES

The TFIS01 siren can only be used when connected to a compatible Tecnofire control unit detection loop.
In the planning and installation phases, the regulations in force must be observed and applied.

LOGIC UNITS

The TFIS01 siren can be programmed to operate as a single or dual logic unit. By programming the second logical unit, called Alias, the siren takes on two functional addresses to which two signalling modes correspond. The position of the Enable rotary switch determines the number of physical/logical units of operation. With the Enable rotary switch programmed to position 0 (zero), there is only one Main Siren operating logic unit. With the Enable rotary switch programmed to any position other than 0 (zero), there are two logical units of operation, Main Siren and Alias Siren.

	Logic unit 1	Enable equal to 0
ID SINGLE	Main siren 	Physical address = XX 

	Logic unit 1	Enable different from 0
ID DOUBLE	Main siren 	Physical address = XX 
	Logic unit 2	**Logical address**
	Alias siren 	Logical address = Physical address XX + 1

ADDRESSING

The physical address of the siren module is programmed by means of two decimal rotary switches, visible on the lower face of the siren. The selectors are marked by labels indicating the position of the digits that make up the address: X10 for the tens and X1 for the units. The numerical range of addresses allowed for the modules goes from address No.01 to address No.99. The programmed address is assigned to logical unit 1 (main siren). Attention: programming address No.00 effectively excludes the siren from operation, but its absorption nevertheless burdens the Loop.

SHORT-CIRCUIT ISOLATOR

The siren is equipped with a line separator with double insulator. In the event of a short circuit of the Loop line, the separator intervenes by isolating the section of line affected by the fault, thus safeguarding the correct functioning of the devices connected upstream and downstream.
The intervention of the line separator preserves the smooth operation of the loop and generates the failure signal "Separator open".

NOTIFICATION PRIORITY

If the siren receives the alarm activation command for both main and alias identities, priority will be given to main siren. An alarm cycle of the alias siren stops when the main siren activates.

DIAGNOSTIC FUNCTIONS

Tecnofire control units manage a series of specialised diagnostic functions for each type of device.
The diagnostic functions available for the siren module allow you to:
- Physically identify the module.
- Identify the device type.
- Identify the HW and FW version.
- Detect electrical operating data.
- Read statistics from the communication monitor.
- Activate the siren.

DIAGNOSTIC FUNCTIONS OF THE MODULE TECNO - siren	
Identification	Turns on the Led of the device for its 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	Measurement of the electric values of operation
Statistic	Statistic/functional values related to communication
Activation	Allows to activate the siren

Consumption
Power supply level
Zero level
Consumption level
Loop resistance

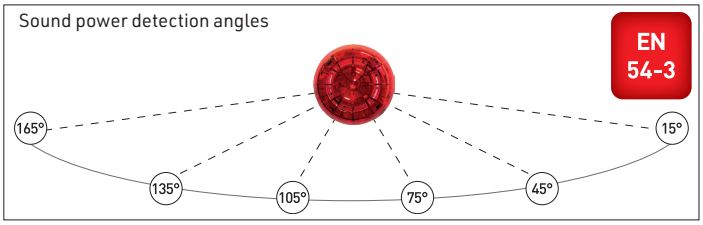
Strings sent
Errors
Percentage of success
Percentage of errors
Latency

NOTIFICATION MODES

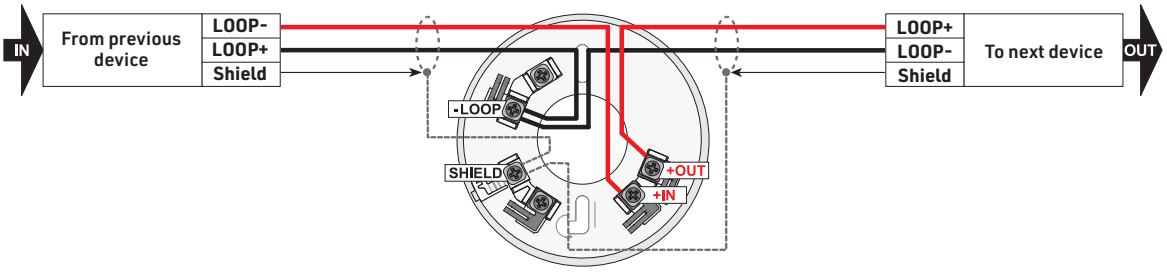
The siren can signal alarms in two modes:
• Acoustic mode
This is obtained by disabling the flashing light.
The siren generates the acoustic signal according to the programmed sound mode and emission level.
• Optical-acoustic mode
This is obtained by enabling the flashing light.
The acoustic signal is generated according to the programmed sound mode and emission level.
Optical signalling is generated by the flashing of the LEDs positioned around the circumference of the case.
The flashing frequencies of the main siren and alias siren are different:
• main siren 100ms ON 200ms OFF
• alias siren 100ms ON 900ms OFF

SOUND SIGNALLING MODES

The table "SOUND TYPES" shows for each of the 64 sound modes: the frequencies, compliance with standards, maximum acoustic power detected with the 30V DC power supply and the acoustic levels detected at the angles indicated, with the 18V DC power supply.
All data were measured with the high volume setting.



CONNECTION TO THE LOOP



SOUND TYPES														
Sound index	Index of matching sounds		Type	Description	Functioning	Standard	Sound level - High volume dB @ 1m							
	TFIES02 TFIES03	TFPANM BASE-SIREN					Max. @ 30V DC	@ 18V DC						
								15°	45°	75°	105°	135°	165°	
1	9		Special	Tecnofire alarm (sweep up)	1000ms @ 353Hz...1950Hz + 50ms off		99	84	91	95	95	90	84	
2	10		Special	Tecnofire technical alarm (sweep up)	1000ms @ 445Hz...590Hz + 50ms off		97	80	88	91	92	87	80	
3	11		Special	Tecnofire failure (sweep up/down)	1000ms @ 445Hz...1000Hz + 100500ms @ 3550Hz + 700ms off		99	85	92	95	95	91	84	
4	12		Special	Tecnofire prealarm (4 tone pulses)	100ms @ 1050Hz + 50ms off + 200ms @ 1300Hz + 50ms off + 100ms @ 1600Hz + 50ms off + 200ms @ 1900Hz + 50ms off		102	83	92	96	95	91	81	
5	13		Bitonal	AFNOR French alarm tone	400ms @ 440Hz + 100ms @ 554Hz	NFS 32-001	96	79	87	91	91	87	81	
6	14		Bitonal		500ms @ 440Hz + 500ms @ 554Hz		97	80	89	92	92	88	82	
7	15		Bitonal		250ms @ 500Hz + 250ms @ 610Hz		94	78	85	89	89	85	79	
8	16		Bitonal	AFNOR French alarm tone	500ms @ 500Hz + 500ms @ 1200Hz	NFS 32-001	98	84	90	92	94	90	86	
9	17		Bitonal		500ms @ 580Hz + 500ms @ 1000Hz		96	82	87	91	91	85	78	
10	18		Bitonal		250ms @ 628Hz + 250ms @ 925Hz		97	83	88	92	91	86	82	
11					250ms @ 988Hz + 250ms @ 645Hz		96	Not compliant with EN 54-3						
12	19		Bitonal		250ms @ 670Hz + 370ms @ 845Hz		100	85	92	95	95	92	85	
13	20		Bitonal		500ms @ 800Hz + 500ms @ 970Hz	BS 5839 Pt1	99	Not compliant with EN 54-3						
14	21		Bitonal		150ms @ 800Hz + 150ms @ 970Hz		98							
15				Telecom alternate tone	250ms @ 800Hz + 250ms @ 970Hz	BS 5839 Pt1 FP1063.1	98							
16	22		Bitonal		170ms @ 2400Hz + 170ms @ 2900Hz		96	82	81	91	95	85	80	
17	23		Bitonal		150ms @ 2400Hz + 150ms @ 2850Hz		96	81	78	91	94	85	80	
18	24		Bitonal		250ms @ 2400Hz + 250ms @ 2850Hz		96	81	80	92	95	86	81	
19	25		Bitonal		250ms @ 2500Hz + 250ms @ 3100Hz		93	80	83	89	90	88	82	
20	26		Pulse		600ms @ 440Hz + 600ms off		93	79	83	87	88	83	77	
21	27		Pulse		250ms @ 580Hz + 250ms off		96	80	86	90	91	87	79	
22	28		Pulse	Swedish alarm tone	150ms @ 660Hz + 150ms off		99	Not compliant with EN 54-3						
23					500ms @ 660Hz + 500ms off		100							
24	29		Pulse		1.8s @ 660Hz + 1.8s off		100							
25	30		Pulse		6.5s @ 660Hz + 13s off		100							
26	31		Pulse	Intermittent tone	150ms @ 925Hz + 600ms off		95	82	86	91	90	85	80	
27	32		Pulse	Intermittent tone	250ms @ 925Hz + 1s off	BS 5839 Pt1	96	83	87	92	91	86	81	
28	33		Pulse	Intermittent tone	250ms @ 970Hz + 1s off	BS 5839 Pt1	94	79	84	90	89	85	75	
29	34		Pulse		500ms @ 970Hz + 500ms off		94	80	85	90	90	85	75	
30	35		Pulse		3x (500ms @ 950Hz + 500ms off) + 1500ms off	ISO 8201 / LBS 5839 Pt1	94	80	85	90	90	85	75	
31	36		Pulse	Intermittent tone	1s @ 970Hz + 1s off	BS 5839 Pt1	94	77	84	90	90	83	74	
32	37		Pulse	Pelican crossing	150ms @ 2850Hz + 100ms off		85	73	78	81	81	74	71	
33	38		Pulse	Backup alarm	500ms @ 2850Hz + 500ms off	HF / BS 5839 Pt1	86	72	79	82	81	74	72	
34	39		Pulse		3x (500ms @ 2850Hz + 500ms off) + 1500ms off	ISO 8201 HF	86	73	79	82	81	74	71	
35	40		Pulse		1000ms @ 2850Hz + 1000ms off		86	75	79	81	81	74	70	
36	41		Continuous	US temporal tone 3	610Hz continuous	ISO 8201	93	76	84	86	88	85	78	
37					628Hz continuous		95	Not compliant with EN 54-3						
38	42		Continuous	End of alarm or Swedish alarm tone	660Hz continuous		100							
39	43		Continuous		845Hz continuous		98	81	92	95	95	93	87	
40	44		Continuous		925Hz continuous		97	83	88	92	91	87	82	
41	8	8	Continuous	**Evacuation alarm UNI 11744**	970Hz continuous	UNI 1174 / BS5839 Pt1	94	77	85	90	90	83	75	
42	45		Continuous		1200Hz continuous		96	81	87	92	93	86	85	
43	46		Continuous	US temporal tone 3	2850Hz continuous	ISO 8201	82	74	79	81	81	74	71	
44	47		Continuous		4000Hz continuous		105	73	91	101	100	96	87	
45	48		Sweep		1000ms @ 300Hz...1200Hz + 0ms off		98	83	90	93	94	90	81	
46	49		Sweep		3x (500ms @ 300Hz...1200Hz + 500ms off) + 1500ms off		97	81	88	92	92	88	82	
47	50		Sweep		3x (500ms @ 400Hz...1200Hz + 500ms off) + 1500ms off		98	82	89	92	92	88	82	
48	51		Sweep		3000ms @ 400Hz...1200Hz + 500ms off		99	84	91	94	94	91	84	
49	52		Sweep		140ms @ 500Hz...1000Hz + 0ms off		97	80	87	91	91	87	80	
50	53		Sweep	Slow evacuation swap	3.5s @ 500Hz...1200Hz + 500ms off	NEN 2575	100	83	92	94	94	91	84	
51	54		Sweep	Slow evacuation swap	3.76s @ 500Hz...1200Hz + 250ms off	NEN 2575	100	83	91	94	94	91	84	
52	55		Sweep	LF buzzer	20ms @ 800Hz...970Hz + 0ms off	BS 5839 Pt1	97	81	88	92	92	87	82	
53	56		Sweep	Fast sweep	140ms @ 800Hz...970Hz + 0ms off (7Hz)	BS 5839 Pt1	98	82	90	93	93	89	83	
54					800Hz...970Hz in 110ms + 0ms off (9Hz)		98	82	89	93	93	89	83	
55	57		Sweep		330ms @ 800Hz...970Hz + 0ms off (3Hz)	BS 5839 Pt1	98	82	90	93	93	90	83	
56	58		Sweep		500ms @ 800Hz...1000Hz + 0ms off		99	82	90	93	94	90	83	
57	7	7	Sweep	**Prealarm UNI 11744**	1000ms @ 800Hz...970Hz + 0ms off	UNI 11744 / BS5839 Pt1	100	84	91	95	95	91	86	
58	59		Sweep		3x (500ms @ 1200Hz...300Hz + 500ms off) + 1500ms off		96	80	87	91	91	87	80	
59	60		Sweep	Evacuation tone	1000ms @ 1200Hz...500Hz + 10ms off	DIN PFEER	98	82	89	93	93	89	84	
60	61		Sweep		20ms @ 2400Hz...2850Hz + 0ms off (50Hz)		95	81	83	90	92	85	77	
61					2400Hz...2850Hz in 110ms + 0ms off (9Hz)		93	78	82	86	88	82	75	
62	62		Sweep	Fast sweep or Australian alarm tone	140ms @ 2400Hz...2850Hz + 0ms off (7Hz)	VdS, AS 2220	94	79	83	87	89	83	76	
63	63		Sweep		330ms @ 2400Hz...2850Hz + 0ms off (3Hz)		93	78	82	86	88	81	75	
64	64		Sweep		1000ms @ 2400Hz...2850Hz + 0ms off		100	85	86	94	96	88	81	

TFIS01

Addressable optical-acoustic alarm device

Accessories

TFBASE01

Mounting base for sirens TFIS01 and TFIES02. ABS material. White colour. Dimensions (D x H) 100 x 19mm.

Item no. TF6TFBASE01N

TFIS01-PLEXI

Plexiglass signage, with mounting location for TFIS01 and TFIES02 sirens. Wording "FIRE ALARM". Dimensions (L x H) 360 x 121mm.

Item no. TF5TFIS01PX-UK

TFBOX-SB

Junction box for mounting base TFBASE01. Circular shape with 2 flat walls, pre-marked plugs for mounting
2 PG9 pipe sockets in opposing or side-by-side arrangement.
Profile with condensation protection.
Degree of protection of TFBOX-SB IP44.
Casing in ABS. Colour white. Dimensions (D x H) 121 x 36mm.

Item no. TF5TFBOXSB

Technical and functional specifications

General information	Addressable optical-acoustic alarm device	**TFIES01**
	Area of use	**Type A (for indoors)**
Optical characteristics	VID classification	**Visual Indication Device**
Acoustic characteristics	Sound level	**Max .90dB(A) @ 1m**
	Main sound type (compliant with EN 54-3)	**Number 1**
Programmable functions	Functional duplication	**Principal ID + Alias ID**
	Polling signaling Led	**Excludable**
	Polling frequency	**Programmable**
	Functioning criterions	**6 modes**
	Optical signalling	**Excludable**
	Acoustic signalling modes	**64**
	Acoustic volume adjustment	**2 settings**
	Activation delay	**Programmable**
	Activation time	**Programmable**
	Device activation	**It can be controlled by the formula**
Loop interface	Addressable module	**Connection over loop**
	Addressing	**2 rotary switch**
	Occupied addresses	**Max. 2 (Double ID)**
	Communication protocol	***FIRE-SPEED***
	Loop isolator	**Double insulator**

Electrical specifications	Nominal voltage	**24V DC**
	Operating voltage	**18V...30V DC**
	Consumption	**520µA @ 24V DC**
	Average absorption during signalling	**Optics and acoustics 8.1mA @ 24V DC**
		Acoustic only 5.5mA @ 24V DC
Physical specifications	Operating temperature	**-15°C...+70°C**
	Relative humidity (non-condensing)	**10%...93%**
	Protection class	**IP22 (EN 60529)**
	Casing	**PC ABS**
	Dimension (D x H)	**120 x 65mm**
	Weight	**230g**
Conformity	Standards	**EN 54-3:2001 + A2:2006 EN 54-17:2005**
	System compatibility	**UNI EN 54-13:2020**
	Certification number	**1293-CPR-0422**
	Year of CE marking	**14**
	Number of declaration of performance	**006_TFIS01**
	Notified body	**EVPU**

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

CE 1293 EVPU Tested

Tecnoalarm ISO 9001 CERTIFIED

Tecnofire DETECTION