teknim®
Fire and Security Systems

FIRE ALARM SYSTEMS
PRODUCT CATALOG
2018/19

Bilgi Elektronik,
Registered as R&D Center
By The "T.C. Ministry of Industry and Science"

TEKNIM,

Teknim, is one of Turkey's oldest and well-known brands which manufactures Fire Alarm Systems, Burglar Alarm Systems and Power Supplies. All products uses completely original technologies which developed by its own R&D team. With the high quality products it has developed and produced for 25 years, Teknim is trying to make life easier and safer both for the consumers and the technicians.

This catalog covers the 2018/19 Fire Systems product portfolio of TEKNIM.

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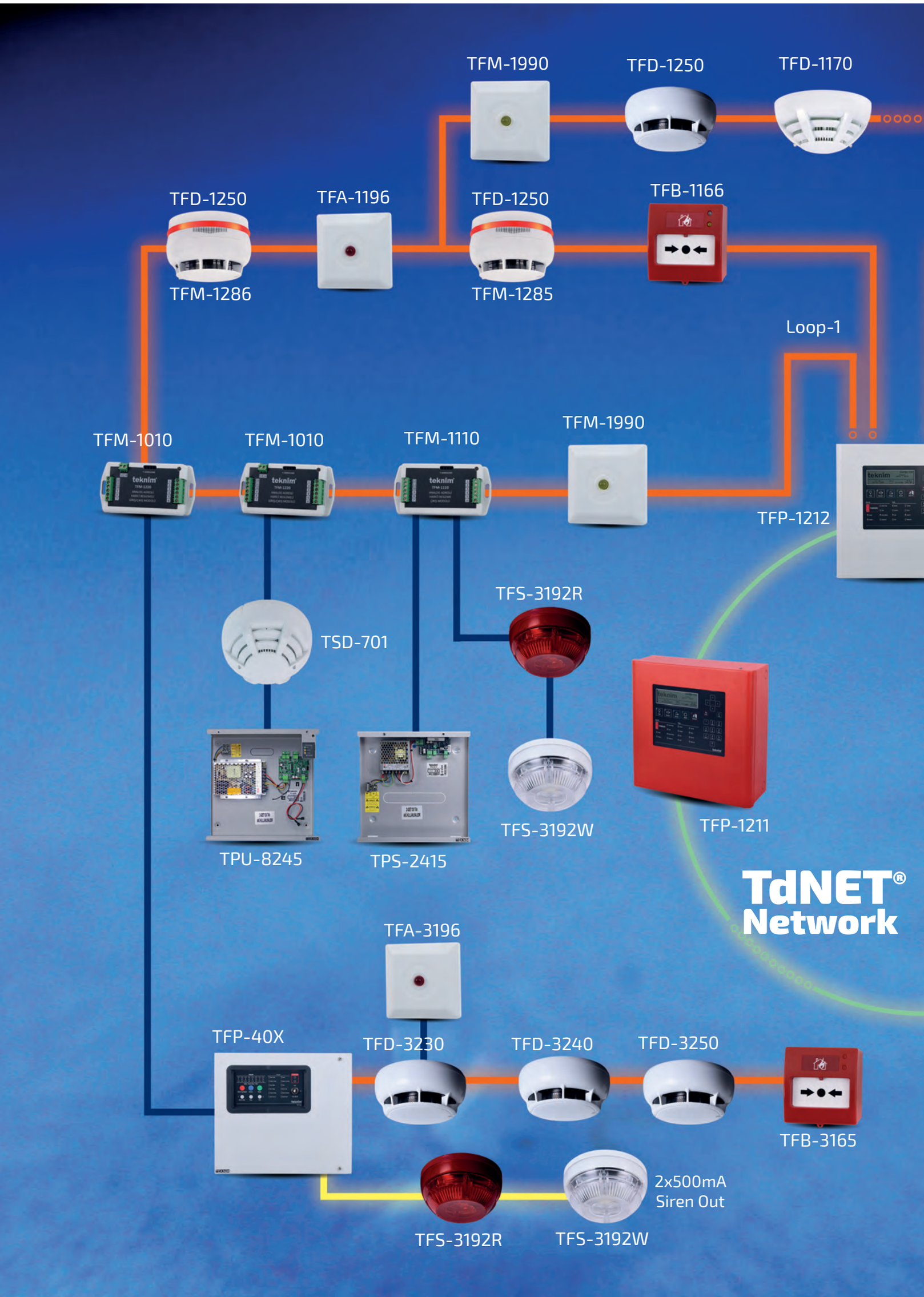
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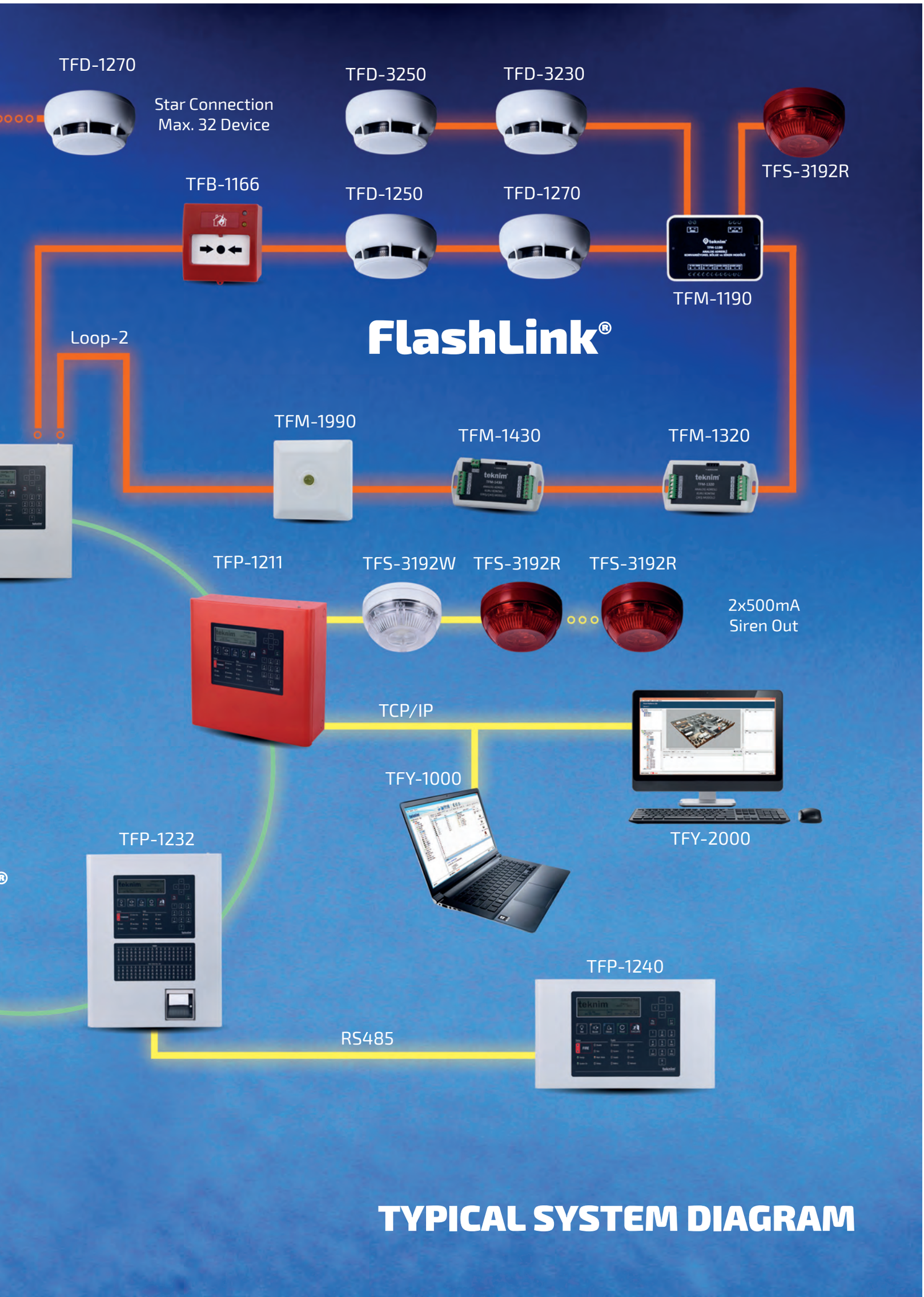


TYPICAL SYSTEM DIAGRAM

TFP-1211
1 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL

EN-54-2 EN-54-4

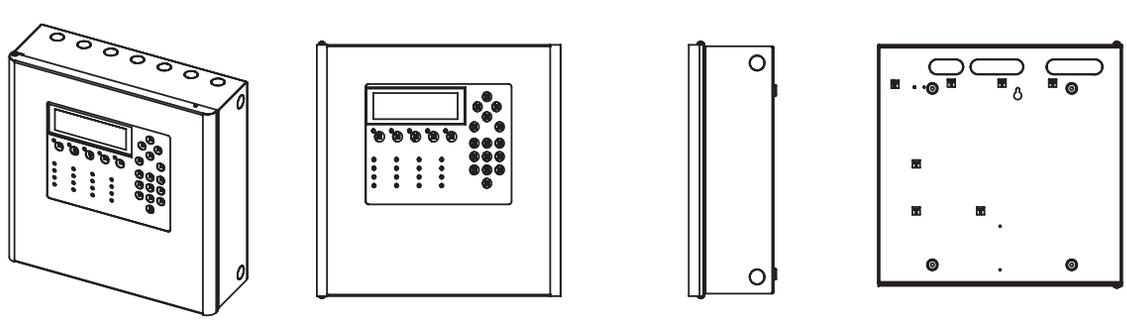
TFP-1211 Series panel is a consumer and technician friendly fire Alarm panel with analog address Designed for Harsh Environments. Each Teknim Panel can flawlessly communicate between detectors and end-units at long distanced using FLASHLINK loop communication protocol developed by Teknim engineers. It also enables networking up to 16 panels via TdNET protocol and TFC-1208 network module developed genuinely. Thus, it can be operated as a single panel constituted of 16 panels and 7.680 end units.

LCD graphic display on TFP-1211 Panels enables easy and quick viewing, understanding, interruption of errors and warnings and overall system use. Entire configuration and system design can be easily performed from the panel or using any computer via TFY-1000 configuration software supplied with the panel. Furthermore, all panel settings can be changed over internet using TCP/IP connection included in standard panel structure.

TFP-12XX series panels are designed in accordance with European Community standards.

GENERAL SPECIFICATIONS

- EN 54-2 and EN 54-4 Certified
- Technician and user friendly; easy installation, programming and operation specifications
- 1 Loop capacity, (Extension to 2 Loops via TFC-1201 Loop Board)
- Cable distance up to 2,5 Km per loop
- 240 device addressing capacity on each loop
- 72 zones that can be individually programmed
- Up to 7.680 addressed devices and 1.152 zones by network structure (Using optional TFC-1208 Network module)
- Easy to read, 240*64 wide LCD graphic display and user-friendly interface
- Display screen customizable with company logo, contact information, images, etc.
- Network structure that can be extended up to 16 panels and operate as a single system via RS-485 based TdNET
- communication protocol developed specifically by Teknim engineers (using optional TFC-1208 Network Module)
- Same level of accessibility and command sending to all panels via peer-to-peer communication network
- Uninterrupted and reliable data communication between loop card and end-units over power line thanks to FlashLink
- communication protocol developed by Teknim
- Advanced panel programming and user-friendly system configuration via TFY-1000 software installed on a computer to be connected to panel over TCP/IP Ethernet (LAN/WAN).
- Graphic monitoring of 1 panel or a networked up to 16 panels as a single system on a map as well as managing some of the features such as evacuation, reset, siren/buzzer silence via TFY-2000 Monitoring Software developed by Teknim software engineers.
- Remote panel monitoring and management via TFP-1240/TFP-1245 REPEATER PANEL connection
- Storing up to 12.000 events of alarms, errors and warnings with time-stamp on the memory.
- Exact identification of possible disconnection points on the line via bi-directional, smart loop control feature.
- In case a device on a loop is removed and reconnected on the line, missing device warning is quickly and automatically reset without further action on the panel.
- 2x independent and delay - monitored siren output. Connection up to 50 sirens without external supply. (If used with Teknim TFS-3192 siren).
- Detailed viewing of voltage/current information of panel and loop on the graphic LCD display of panel
- Night/day operation mode that can be programmed automatically or by user for alarm verification
- Siren delay time individually programmable for each zone
- Automatic Alarm of devices connected to the system, informing and prompting user via LCD screen, enabling easy inclusion of devices into the system
- Supports Class A and Class B connections, thus new devices can be easily included in the loop via star connection in mandatory cases required for the Project
- Multiple language support



TFP-1211 1 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL TECHNICAL SPECIFICATIONS

General

Standard	EN54-2/4
Ethernet (TCP/IP)	YES
Multi Language Support	Turkish – English
Display	240x64 Graphic Screen
Programming	From the panel and via Teknim Configuration Software

Loop Information

Loops	1
Maximum Loop	(Extension to 2 Loops via TFC-1201 Loop Board)
Number of Devices per Loop	240
Number of Zones	72
Cable Type and Distance	J-Y(St)Y...Lg 1000 mt 0,8mm cross section (@250 mA) 2000 mt 0,8mm cross section (@75 mA) 2000 mt 1,5mm² cross section (@250 mA) 2500 mt 2mm² cross section (@250 mA)

Network

TdNET Protocol	Yes
Maximum Panel	16 (With TFC-1208 Network Module)

Mechanics

Dimensions (mm)	385 x 380 x 130 mm
Body material and color	Metal - Light Grey and Red
Weight	6,5Kg (Without Battery)

Environmental

Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

Power

Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	6A
Power Cable Type	3 x 1,5mm²
Backup Battery	2 x 12V, 7Ah 2 x 12V, 12Ah
Imin	130 mA
ImaxA	1A
ImaxB	1,5A

Outputs

Number of Monitored Siren Outputs	2
Siren Fuse	500 mA
Siren EOL Resistance	4K7Ω
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1 x 24VDC
AUX Fuse	500mA

TFP-1212
2 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL

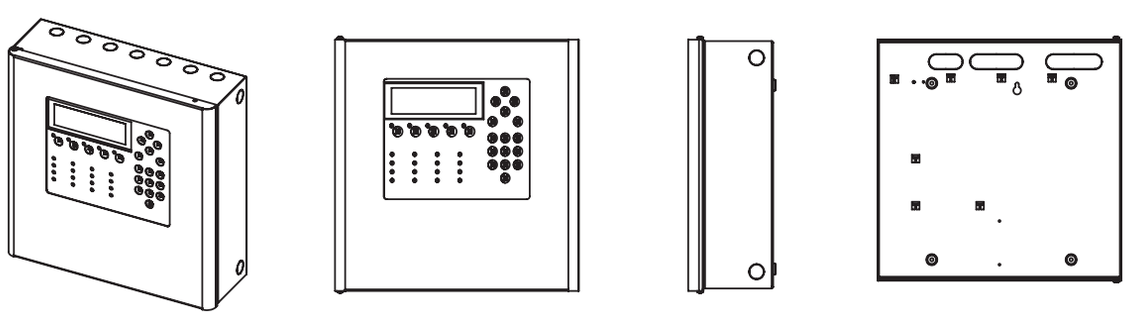
EN-54-2 EN-54-4

TFP-1212 Series panel is a consumer and technician friendly fire Alarm panel with analog address Designed for Harsh Environments. Each Teknim Panel can flawlessly communicate between detectors and end-units at long distanced using FLASHLINK loop communication protocol developed by Teknim engineers. It also enables networking up to 16 panels via TdNET protocol and TFC-1208 network module developed genuinely. Thus, it can be operated as a single panel constituted of 16 panels and 7.680 end units.
LCD graphic display on TFP-1212 Panels enables easy and quick viewing, understanding, interruption of errors and warnings and overall system use. Entire configuration and system design can be easily performed from the panel or using any computer via TFY-1000 configuration software supplied with the panel. Furthermore, all panel settings can be changed over internet using TCP/IP connection included in standard panel structure.

TFP-12XX series panels are designed in accordance with European Community standards.

GENERAL SPECIFICATIONS

- EN 54-2 and EN 54-4 Certified
- Technician and user friendly; easy installation, programming and operation specifications
- 2 Loop capacity
- Cable distance up to 2,5 Km per loop
- 240 device addressing capacity on each loop
- 72 zones that can be individually programmed
- Up to 7.680 addressed devices and 1.152 zones by network structure (Using optional TFC-1208 Network module)
- Easy to read, 240*64 wide LCD graphic display and user-friendly interface
- Display screen customizable with company logo, contact information, images, etc.
- Network structure that can be extended up to 16 panels and operate as a single system via RS-485 based TdNET
- communication protocol developed specifically by Teknim engineers (using optional TFC-1208 Network Module)
- Same level of accessibility and command sending to all panels via peer-to-peer communication network
- Uninterrupted and reliable data communication between loop card and end-units over power line thanks to FlashLink communication protocol developed by Teknim
- Advanced panel programming and user-friendly system configuration via TFY-1000 software installed on a computer to be connected to panel over TCP/IP Ethernet (LAN/WAN).
- Graphic monitoring of 1 panel or a networked up to 16 panels as a single system on a map as well as managing some of the features such as evacuation, reset, siren/buzzer silence via TFY-2000 Monitoring Software developed by Teknim software engineers.
- Remote panel monitoring and management via TFP-1240/TFP-1245 REPEATER PANEL connection
- Storing up to 12.000 events of alarms, errors and warnings with time-stamp on the memory.
- Exact identification of possible disconnection points on the line via bi-directional, smart loop control feature.
- In case a device on a loop is removed and reconnected on the line, missing device warning is quickly and automatically reset without further action on the panel.
- 2x independent and delay - monitored siren output. Connection up to 50 sirens without external supply. (If used with Teknim TFS-3192 siren).
- Detailed viewing of voltage/current information of panel and loop on the graphic LCD display of panel
- Night/day operation mode that can be programmed automatically or by user for alarm verification
- Siren delay time individually programmable for each zone
- Automatic Alarm of devices connected to the system, informing and prompting user via LCD screen, enabling easy inclusion of devices into the system
- Supports Class A and Class B connections, thus new devices can be easily included in the loop via star connection in mandatory cases required for the Project
- Multiple language support



TFP-1212 2 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL TECHNICAL SPECIFICATIONS

Genel

Standard	EN54-2/4
Ethernet (TCP/IP)	YES
Multi Language Support	Turkish – English
Display	240x64 Graphic Screen
Programming	From the panel and via Teknim Configuration Software

Loop Information

Loops	2
Maximum Loop	2
Number of Devices per Loop	240
Number of Zones	72
Loop Voltage	32V
Cable Type and Distance	J-Y(St)Y...Lg 1000 mt 0,8mm cross section (@250 mA) 2000 mt 0,8mm cross section (@75 mA) 2000 mt 1,5mm² cross section (@250 mA) 2500 mt 2mm² cross section (@250 mA)

Network

TdNET Protocol	Yes
Maximum Panel	16 (With TFC-1208 Network Module)

Mechanics

Dimensions (mm)	385 x 380 x 130 mm
Body material and color	Metal - Light Grey and Red
Weight	6,5Kg (Without Battery)

Environmental

Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

Power

Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	6A
Power Cable Type	3 x 1,5mm²
Backup Battery	2 x 12V, 7Ah 2 x 12V, 12Ah
Imin	130 mA
ImaxA	1A
ImaxB	1,5A

Outputs

Number of Monitored Siren Outputs	2
Siren Fuse	500 mA
Siren EOL Resistance	4K7Ω
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1X 24VDC
AUX Fuse	500mA

TFP-1214
4 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL,

EN-54-2 **EN-54-4**

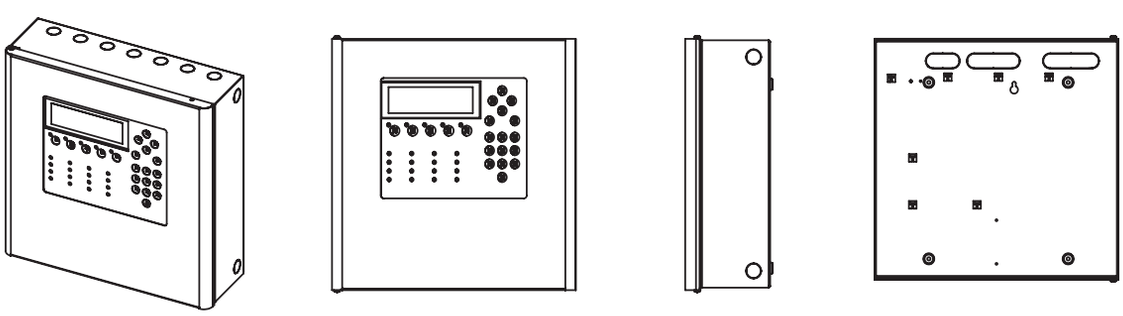
TFP-1214 Series panel is a consumer and technician friendly fire Alarm panel with analog address Designed for Harsh Environments. Each Teknim Panel can flawlessly communicate between detectors and end-units at long distanced using FLASHLINK loop communication protocol developed by Teknim engineers. It also enables networking up to 16 panels via TdNET protocol and TFC-1208 network module developed genuinely. Thus, it can be operated as a single panel constituted of 16 panels and 8.128 end units.

LCD graphic display on TFP-1214 Panels enables easy and quick viewing, understanding, interruption of errors and warnings and overall system use. Entire configuration and system design can be easily performed from the panel or using any computer via TFY-1000 configuration software supplied with the panel. Furthermore, all panel settings can be changed over internet using TCP/IP connection included in standard panel structure.

TFP-12XX series panels are designed in accordance with European Community standards.

GENERAL SPECIFICATIONS

- EN 54-2 and EN 54-4 Certified
- Technician and user friendly; easy installation, programming and operation specifications
- 4 Loop capacity, (Extension to 2 Loops via TFC-1201 Loop Board)
- Cable distance up to 2,5 Km per loop
- 127 device addressing capacity on each loop
- 72 zones that can be individually programmed
- Up to 8.128 addressed devices and 1.152 zones by network structure (Using optional TFC-1208 Network module)
- Easy to read, 240*64 wide LCD graphic display and user-friendly interface
- Display screen customizable with company logo, contact information, images, etc.
- Network structure that can be extended up to 16 panels and operate as a single system via RS-485 based TdNET
- communication protocol developed specifically by Teknim engineers (using optional TFC-1208 Network Module)
- Same level of accessibility and command sending to all panels via peer-to-peer communication network
- Uninterrupted and reliable data communication between loop card and end-units over power line thanks to FlashLink communication protocol developed by Teknim
- Advanced panel programming and user-friendly system configuration via TFY-1000 software installed on a computer to be connected to panel over TCP/IP Ethernet (LAN/WAN).
- Graphic monitoring of 1 panel or a networked up to 16 panels as a single system on a map as well as managing some of the features such as evacuation, reset, siren/buzzer silence via TFY-2000 Monitoring Software developed by Teknim software engineers.
- Remote panel monitoring and management via TFP-1240/TFP-1245 REPEATER PANEL connection
- Storing up to 12.000 events of alarms, errors and warnings with time-stamp on the memory.
- Exact identification of possible disconnection points on the line via bi-directional, smart loop control feature.
- In case a device on a loop is removed and reconnected on the line, missing device warning is quickly and automatically reset without further action on the panel.
- 2x independent and delay - monitored siren output. Connection up to 50 sirens without external supply. (If used with Teknim TFS-3192 siren).
- Detailed viewing of voltage/current information of panel and loop on the graphic LCD display of panel
- Night/day operation mode that can be programmed automatically or by user for alarm verification
- Siren delay time individually programmable for each zone
- Automatic Alarm of devices connected to the system, informing and prompting user via LCD screen, enabling easy inclusion of devices into the system
- Supports Class A and Class B connections, thus new devices can be easily included in the loop via star connection in mandatory cases required for the Project
- Multiple language support



TFP-1214 4 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL TECHNICAL SPECIFICATIONS

General

Standard	EN54-2/4
Ethernet (TCP/IP)	YES
Multi Language Support	Turkish – English
Display	240x64 Graphic Screen
Programming	From the panel and via Teknim Configuration Software

Loop Information

Loops	4
Maximum Loop	4
Number of Devices per Loop	127
Number of Zones	72
Loop Voltage	32V
Cable Type and Distance	J-Y(St)Y...Lg 1000 mt 0,8mm cross section (@250 mA) 2000 mt 0,8mm cross section (@75 mA) 2000 mt 1,5mm² cross section (@250 mA) 2500 mt 2mm² cross section (@250 mA)

Network

TdNET Protocol	Yes
Maximum Panel	16 (With TFC-1208 Network Module)

Mechanics

Dimensions (mm)	385 x 380 x 130 mm
Body material and color	Metal - Light Grey and Red
Weight	6,5Kg (Without Battery)

Environmental

Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

Power

Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	6A
Power Cable Type	3 x 1,5mm²
Backup Battery	2 x 12V, 7Ah 2 x 12V, 12Ah
Imin	130 mA
ImaxA	1A
ImaxB	1,5A

Outputs

Number of Monitored Siren Outputs	2
Siren Fuse	500 mA
Siren EOL Resistance	4K7Ω
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1X 24VDC
AUX Fuse	500mA

TFP-1232

2 LOOP ANALOG ADDRESSABLE FIRE ALARM PANEL,

72 ZONE INDICATORS WITH PRINTER

TFP-1232 Series panel is a consumer and technician friendly fire Alarm panel with analog address Designed for Harsh Environments. Each Teknim Panel can flawlessly communicate between detectors and end-units at long distanced using FLASHLINK loop communication protocol developed by Teknim engineers. It also enables networking up to 16 panels via TdNET protocol and TFC-1208 network module developed genuinely. Thus, it can be operated as a single panel constituted of 16 panels and 7.680 end units.
LCD graphic display on TFP-1232 Panels enables easy and quick viewing, understanding, interruption of errors and warnings and overall system use. Entire configuration and system design can be easily performed from the panel or using any computer via TFY-1000 configuration software supplied with the panel. Furthermore, all panel settings can be changed over internet using TCP/IP connection included in standard panel structure.

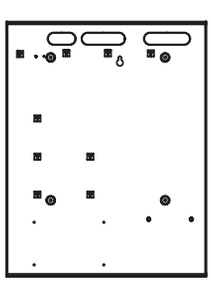
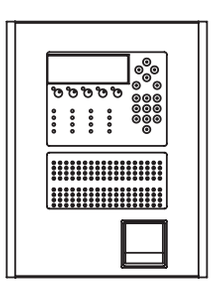
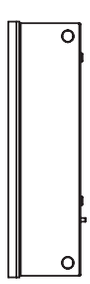
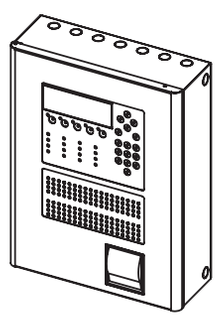
There are 72 zone led indicators for viewing alarms and errors faster and remotely particularly in factory and industrial environments.

TFP-1232 panel is also equipped with a printer enabling printing of event log on paper if required.

TFP-12XX series panels are designed in accordance with European Community standards.

GENERAL SPECIFICATIONS

- Conforms to EN 54-2 and EN 54-4 standards
- Technician and user friendly; easy installation, programming and operation specifications
- Printing alarm, error and warning logs via on-board printer
- 2 Loop capacity
- Cable distance up to 2,5 Km per loop
- 240 device addressing capacity on each loop
- 72 zones that can be individually programmed
- Capacity up to total of 7.680 addressed devices and 1.152 zones by network structure (Using optional TFC-1208 Network module)
- 72 LED indicators signaling alarms and errors
- Easy to read, 240*64 wide LCD graphic display and user-friendly interface
- Display screen customizable with company logo, contact information, images, etc.
- Network structure that can be extended up to 16 panels and operate as a single system via RS-485 based Td-NET communication protocol developed specifically by Teknim engineers (using optional TFC-1208 Network Module)
- Same level of accessibility and command sending to all panels via peer-to-peer communication network feature
- Uninterrupted and reliable data communication between loop card and end-units over power line thanks to FlashLink communication protocol developed by Teknim
- Advanced panel programming and user-friendly system configuration via TFY-1000 software installed on a computer to be connected to panel over TCP/IP Ethernet (LAN/WAN).
- Graphic monitoring of 1 panel or a network up to 16 panels as a single system on a map as well as managing some of the features such as evacuation, reset, siren/buzzer silencing via TFY-2000 Monitoring Software developed by Teknim software engineers.
- Remote panel monitoring and management via TFP-1240/TFP-1245 REPEATER PANEL connection (1 Km cable distance).
- Storing up to 12.000 events of alarms, errors and warnings with time-stamp on the memory.
- Exact identification of possible disconnection points on the line via bi-directional, smart loop control feature.
- In case a device on a loop is removed and reconnected on the line, missing device warning is quickly and automatically reset without further action on the panel.
- 2x independent and delay - monitored siren output. Connection up to 50 sirens without external supply (If used with Teknim TFS-3192 siren).
- Detailed viewing of voltage/current information of panel and loop on the graphic LCD display of panel
- Night/day operation mode that can be programmed automatically or by user for alarm verification
- Siren delay time individually programmable for each zone
- Automatic Alarm of devices connected to the system, informing and prompting user via LCD screen, enabling easy inclusion of devices into the system
- Supports Class A and Class B connections, thus new devices can be easily included in the loop via star connection in mandatory cases required for the Project
- Multiple language support

TFP-1232 ANALOG ADDRESSABLE FIRE ALARM PANEL,
2 LOOP, 72 ZONE INDICATORS WITH PRINTER
TECHNICAL SPECIFICATIONS

General

Standard	Conforms EN54-2/4
Ethernet (TCP-IP)	YES
Multi Language Support	Turkish – English
Display	240x64 Graphic Screen
Programming	From the panel and via Teknim Configuration Software
Printer Support	YES

Loop Information

Loops	2
Maximum Loop	2
Number of Devices per Loop	240
Number of Zones	72
Loop Voltage	32V
Cable Type and Distance	J-Y(St)Y...Lg 1000 mt 0,8mm cross section (@250 mA) 2000 mt 0,8mm cross section (@75 mA) 2000 mt 1,5mm² cross section (@250 mA) 2500 mt 2mm² cross section (@250 mA)

Network

TdNET Protocol	Yes
Maximum Panel	16 (With TFC-1208 Network Module)

Mechanics

Dimensions (mm)	9,5kg (Aküsüz)
Body material and color	Metal - Light Grey and Red
Weight	385 x 495 x 145 mm

Environmental

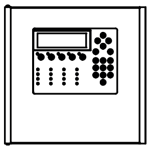
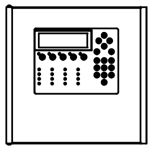
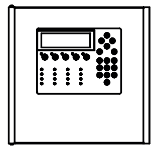
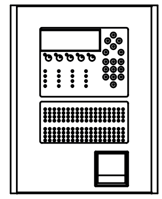
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

Power

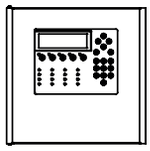
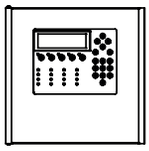
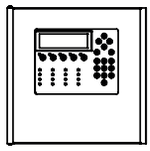
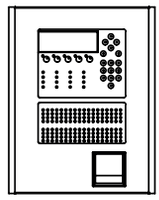
Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	6A
Power Cable Type	3 x 1,5mm²
Backup Battery	2 x 12V, 7Ah 2 x 12V, 12Ah
Imin	180 mA
ImaxA	1A
ImaxB	1,5A

Outputs

Number of Monitored Siren Outputs	4 adet
Siren Fuse	500 mA
Siren EOL Resistance	4K7Ω
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1X 24VDC
AUX Fuse	500mA
Programmable Aux	Yes
Programmable Fire Relay	Yes

Technical Specifications	TFP-1211	TFP-1212	TFP-1214	TFP-1232
Standard	EN54-2/4	EN54-2/4	EN54-2/4	EN54-2/4 Uyumludur
Ethernet (TCP-IP)	YES	YES	YES	YES
Multi Language Support	Turkish – English	Turkish – English	Turkish – English	Turkish – English
Display	240x64 Graphic Screen	240x64 Graphic Screen	240x64 Graphic Screen	240x64 Graphic Screen
Programming	From the panel and via Teknim Configuration Software	From the panel and via Teknim Configuration Software	From the panel and via Teknim Configuration Software	From the panel and via Teknim Configuration Software
Loop Information				
Loops	1	2	4	2
Maximum Loop	2	2	4	2
Devices per Loop	240	240	127	240
Number of Zones	72	72	72	72
Loop Voltage	32V	32V	32V	32V
Cable Type and Distance	J-Y(St)Y...Lg 1000 mt, 0,8mm cross section (@250 mA) 2000 mt, 0,8mm cross section (@75 mA) 2000 mt, 1,5mm² cross section (@250 mA) 2500 mt. 2mm² cross section (@250 mA)	J-Y(St)Y...Lg 1000 mt, 0,8mm cross section (@250 mA) 2000 mt, 0,8mm cross section (@75 mA) 2000 mt, 1,5mm² cross section (@250 mA) 2500 mt, 2mm² cross section (@250 mA)	J-Y(St)Y...Lg 1000 mt, 0,8mm cross section (@250 mA) 2000 mt, 0,8mm cross section (@75 mA) 2000 mt, 1,5mm² cross section (@250 mA) 2500 mt, 2mm² cross section (@250 mA)	J-Y(St)Y...Lg 1000 mt, 0,8mm cross section (@250 mA) 2000 mt, 0,8mm cross section (@75 mA) 2000 mt, 1,5mm² cross section (@250 mA) 2500 mt, 2mm² cross section (@250 mA)
Network				
TdNET Protocol	Yes	Yes	Yes	Yes
Maximum Panel	16 (With TFC-1208 Network Module)	16 (With TFC-1208 Network Module)	16 (With TFC-1208 Network Module)	16 (With TFC-1208 Network Module)
Mechanics				
Dimensions (mm)	385 x 380 x 130 mm	385 x 380 x 130 mm	385 x 380 x 130 mm	385 x 495 x 145 mm
Body material and color	Metal - Light Grey and Red	Metal - Light Grey and Red	Metal - Light Grey and Red	Metal - Light Grey and Red
Weight	6,5 kg (Without Battery)	6,5kg (Without Battery)	6,5kg (Without Battery)	9,5kg (Without Battery)

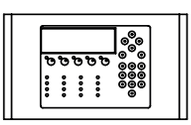
Technical Specifications	TFP-1211	TFP-1212	TFP-1214	TFP-1232
Environmental				
Operating Temperature	-10°C ~ 55°C	-10°C ~ 55°C	-10°C ~ 55°C	-10°C ~ 55°C
Humidity	95% RH	95% RH	95% RH	95% RH
Protection Class	IP30	IP30	IP30	IP30
Power				
Operating Voltage	230 / 110 VAC (+%10 / -%15)	230 / 110 VAC (+%10 / -%15)	230 / 110 VAC (+%10 / -%15)	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)	50 / 60 Hz (±%5)	50 / 60 Hz (±%5)	50 / 60 Hz (±%5)
Power Fuse	6A	6A	6A	6A
Power Cable Type	3 x 1,5mm^2	3 x 1,5mm^2	3 x 1,5mm^2	3 x 1,5mm^2
Backup Battery	2 x 12V, 7Ah 2 x 12V, 12Ah	2 x 12V, 7Ah 2 x 12V, 12Ah	2 x 12V, 7Ah 2 x 12V, 12Ah	2 x 12V, 7Ah 2 x 12V, 12Ah
Imin	130 mA	130 mA	130 mA	180 mA
ImaxA	1A	1A	1A	1A
ImaxB	1,5A	1,5A	1,5A	1,5A
Outputs				
Number of Monitored Siren Outputs	2	2	2	4
Siren Fuse	500 mA	500 mA	500 mA	500 mA
Siren EOL Resistance	4K7Ω	4K7Ω	4K7Ω	4K7Ω
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah	1X NC/NO Dry Contact, 30V 2Ah
AUX	1X 24VDC	1X 24VDC	1X 24VDC	1X 24VDC
AUX Fuse	500mA	500mA	500mA	500mA

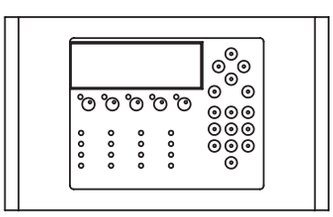
TFP-1240
REPEATER PANEL

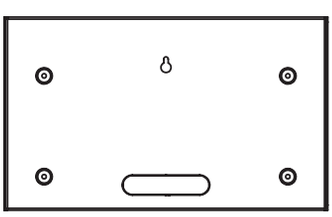
Teknim TFP-1240 repeater panel is developed to monitor and intervene fire detection systems from different points at large and medium scale enterprises. It can be connected approximately up to 1.000 meters distance from main panel over RS-485 communication layer. Slim and aesthetic design fits into any office environment, guard kiosk, reception desk etc. Power is supplied directly from the panel without an external power supply. All features provided on the main panel are also available on the repeater panel. All 72 zones on the loop are displayed on LCD screen of TFP-1240 repeater panel.

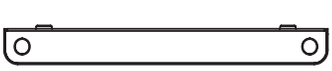
GENERAL SPECIFICATIONS

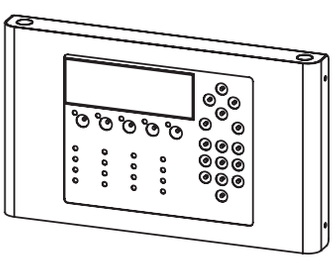
- Easy to read, 240*64 wide LCD graphic display
- User-friendly interface enables easy viewing of alarms, errors and warnings
- Easy connection with the main panel
- Real-time, stabilized communication via RS-485 communication structure
- Cable connection distance up to 1 Km with main panel
- Robust body, stylish design











Technical Specifications	TFP-1240
Zone Indicator	Yok
Main Supply Voltage	24±4 VDC
Maximum Consumption	0,15A @24 VDC
Cable Type and Distance	J-Y (ST) Y-L9 1000 mt 0,8 mm

Mechanics	
Weight	2,6 kg
Dimensions (mm)	230 x 386 x 40 mm
Body material and color	Metal - Light Grey and Red

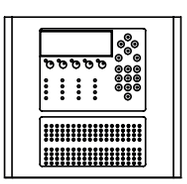
Environmental	
Operating Temperature	-10C ~ 55C
Humidity	95% RH
Protection Class	IP30

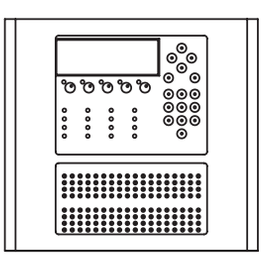
TFP-1245
REPEATER PANEL WITH 72 ZONE INDICATORS

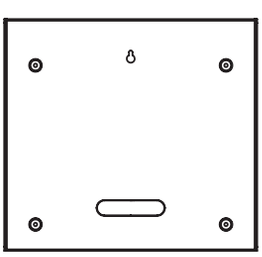
Teknim TFP-1245 repeater panel is developed to monitor and intervene fire detection systems from different points at large and medium scale enterprises. It can be connected approximately up to 1.000 meters distance from main panel over RS-485 communication layer. Slim and aesthetic design fits into any office environment, guard kiosk, reception desk etc. Power is supplied directly from the panel without an external power supply. All features provided on the main panel are also available on the repeater panel. All 72 zones on a loop are displayed on LCD screen as well as LED indicator panel for 72 zones on TFP-1245 repeater panel.

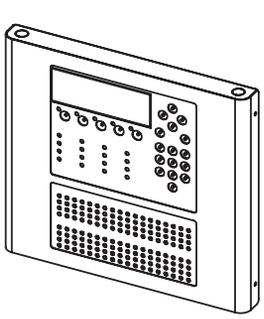
GENERAL SPECIFICATIONS

- Easy to read, 240*64 wide LCD graphic display
- LED indicator for displaying alarms and errors
- User-friendly interface enables easy viewing of alarms, errors and warnings
- Easy connection with the main panel
- Real-time, stabilized communication via RS-485 communication structure
- Cable connection distance up to 1 Km with main panel
- Robust body, stylish design







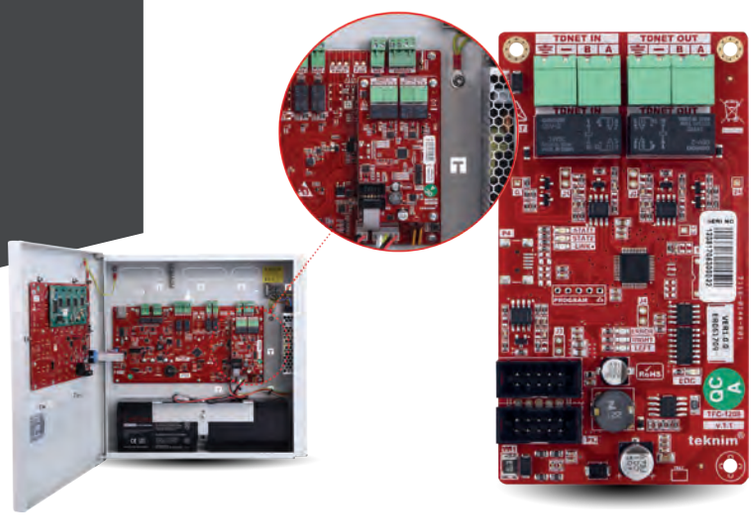


TFP-1245 Technical Specifications	
Zone Indicator	Yes (72 Zones)
Main Supply Voltage	24±4 VDC
Maximum Consumption	0,15A @24 VDC

Mechanics	
Weight	3,9 kg
Dimensions (mm)	350 x 386 x40 mm
Body material and color	Metal - Light Grey and Red

Environmental	
Operating Temperature	-10C ~ 55C
Humidity	95% RH
Protection Class	IP30

TFC-1208
NETWORK MODULE



TFC-1208 Network Module establishes a strong ring or bus network by inter-connecting 16 panels via TdNET protocol. Each network board can be connected to the panel or can be operated with a computer or other devices such as electronic board and used in extra applications thanks to snap-in feature. Use of RS485/Fiber optical converter is recommended in case the distance between devices is more than 1.000m or in zones with EMC problems.

In case system load needs to be distributed or in facilities with multiple buildings, it can inter-connect all panels to build a ring or bus network and enable operation and control of the entire system as a single panel. Use of TdNET network board enables monitoring and control of 7.680 devices in a network system with 16 panels.

GENERAL SPECIFICATIONS

- Supports Class A and Class B connections
- Ensures a reliable and logic data transmission via Ring and Bus topologies.
- Uses RS485 serial communication and data transmission speed is 230.400bps
- Same level of accessibility and command sending to all panels via peer-to-peer communication network
- Uses TdNET protocol which is a Multimaster, Token-Passing communication method developed by Teknim
- Master panel or host computer is not required; therefore, system life is extended via elimination of single device dependency.
- In case of network board failure, it by-passes board input and output connections and ensures network line continuity
- Network connection with maximum 16 panels
- Automatically included in the communication within 20 seconds after connection to the line, no further setting is required
- Enables monitoring of all networked panels from any panel in the system
- Provides visual notification via error LEDs indicating open circuit direction or link LED indicating connection status.
- It can be easily plugged to main board by connector and frame connection and operated

TdNET® NETWORK COMMUNICATION PROTOCOL

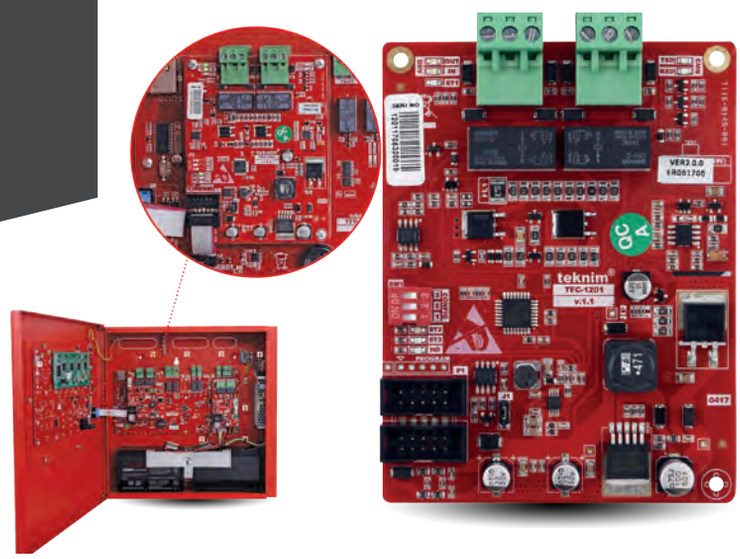
TdNET is a strong and reliable communication protocol developed to build a network among all products of Teknim. TdNET protocol defines Network and Data Link layers according to OSI (Open Systems Interconnection) defined by International Standard Organization.

TdNET Protocol takes advantage of RS485's differential feature and performs CRC control in order to prevent faulty data transmission. Thus, data transmission is both reliable and capable of eliminating disturbances and high frequency effects that may interrupt communication.

225 different devices can inter-communicate via 8 bits of target and source address fields. Protocol supports both "Token Bus" and "Token Ring" topologies. Devices on a network line connected as "Token Ring" are capable of changing the communication to "Token Bus" topology automatically in case of any shortcut on the line.

TFC-1208 Technical Specifications	
Protocol	TdNET (RS-485)
Maximum Distance	1.000 mt
Maximum Stations	16
Average Consuption	50mA (@24V)
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)
Humidity	95% RH
Dimensions (mm)	61mm x 110mm
Cable Type	0.8mm, 1,5mm^2, 2mm^2

TFC-1201
LOOP BOARD



TFC-1201 Loop board communicates with addressable devices over loop line using FlashLink protocol. It has a control capacity of 240 end units.

TFC-1201 supports Class A and Class B connections. This enables ease of installation and operation. (if more than 32 end units are used in Class B connection structure, system will not be covered EN54-2 standard) It Works in full compliance with Teknim addressable products.

It is used to add more end units to the system by increasing loop number of TFP-1211 Control Panel. It is included in the system by making socket and frame connection on the main board.

GENERAL SPECIFICATIONS

- FlashLink protocol developed by Teknim is used between loop board and end units
- 240 end unit capacity per loop
- Internal short-circuit protection
- Class A and Class B connection support
- Switch structure for loop board addressing
- Configuration from the control panel or PC software
- Status indicator LEDs which display communication direction and errors
- Easy installation via socket and frame connection on the main board
- Low power consumption thanks to the advantages of Flashlink protocol
- High EM/EMC performance

FlashLink® DATA COMMUNICATION PROTOCOL

FlashLink is an uninterrupted and reliable communication protocol developed by Teknim which is used data communication between loop board and end units over power line. Protocol supports multiple frame structures. This enables flexible and fast transmission of data.

Fast data speed enables a quick scanning time. Emergency package feature enables detection of fire in less than 1,5 seconds.

TFC-1201 Technical Specifications	
Power	18V(min) – 30V(max)
Average Consumption	65mA (@24V)
Loop Protocol	Flashlink
Communication Protocol	Teknim
Supported Device Number	240
Loop Power	32 VDC
Cable Type	J-Y(St)Y...Lg 1000 mt 0,8mm Cross link (@250 ma) 2000 mt 0,8mm Cross link (@75 ma) 2000 mt 1,5mm² Cross link (@250 ma) 2500 mt 2mm² Cross link (@250 ma)
Operating Temperature	95% RH
Humidity	-10°C ~ 55°C (14°F ~ 131°F)
Dimensions (mm)	84mm x 110mm

TFCM-1801
DEVICE PROGRAMMING MODULE

TFCM-1801 device programming module is developed to define address for end units such as detector, button, input-output module or to read defined addressed and firmware version. It is supplied from 9V (6LR61) battery.
Practical menu interface and controls enable ease of use.

GENERAL SPECIFICATIONS

- It can be connected to all Teknim addressable devices
- It can be connected to all devices via special terminal end regardless of direction for programming
- Enables fast-easy programming
- Saves the last address in memory by “Memorize” feature and prevents double address errors
- “Smart Waiting Time” feature switches the device to standby mode when not in use
- It is used to write-read address, change existing addresses, read version, read serial number and production date.

TFCM-1801 Technical Specifications	
Power	9V Battery (6LR61)
Weight	140g (Battery Included)
Dimensions (mm)	70mmx135mm
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

TFY-1000
TEKNIM CONFIGURATION SOFTWARE

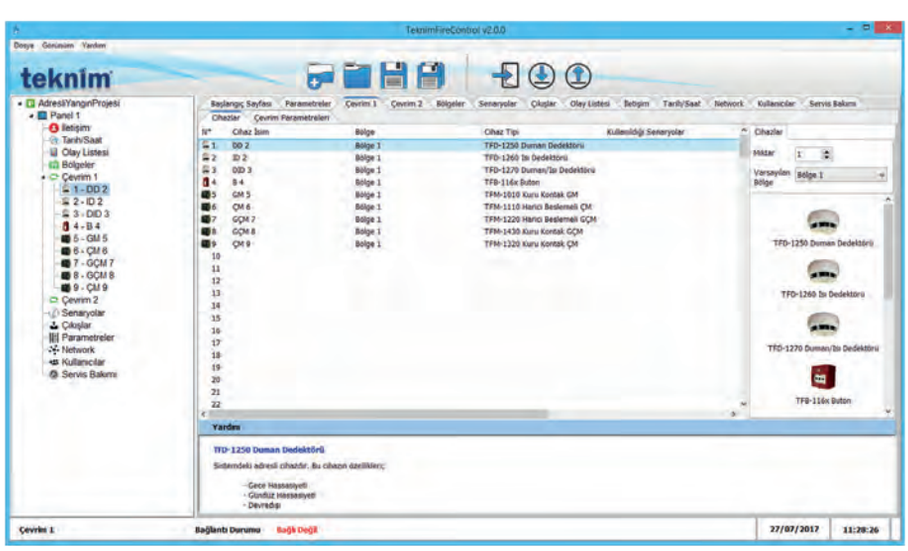
TFY-1000 is fire detection systems configuration software designed for installation companies. Simple interface structure and drag-drop feature makes the software easy to use and understand. It saves users from significant time losses during configuration. In addition to the functional features on the panel, the software has additional features of creating scenario, logo upload and event list back-up.

Software is continuously developed for Teknim TFP-12XX panel series and updated with new features.

Communication between TFP-12XX panels is carried out via TCP/IP protocol. Practical menu interface and controls enable ease of use.

GENERAL SPECIFICATIONS

- Offline project creation
- Project saving and editing
- Add-remove devices to/from the system (drag-drop feature)
- TCP/IP communication
- Graphical interface view
- Scenario creation (drag-drop feature)
- Event log view and back-up (“.txt” and “.xls” file extensions)
- Network support (max. 16 panels)
- Single panel or entire network system configuration
- Company/dealer communication information screen and logo upload
- Help Window with detailed explanation in each section
- Multi-language support (Turkish, English)



TFY-20XX
TEKNIM MONITORING SOFTWARE

TFY-2000 is a monitoring and control software with an easy use and management specifically developed for graphical monitoring and control of fire, warning and error events within Teknim fire alarm system.

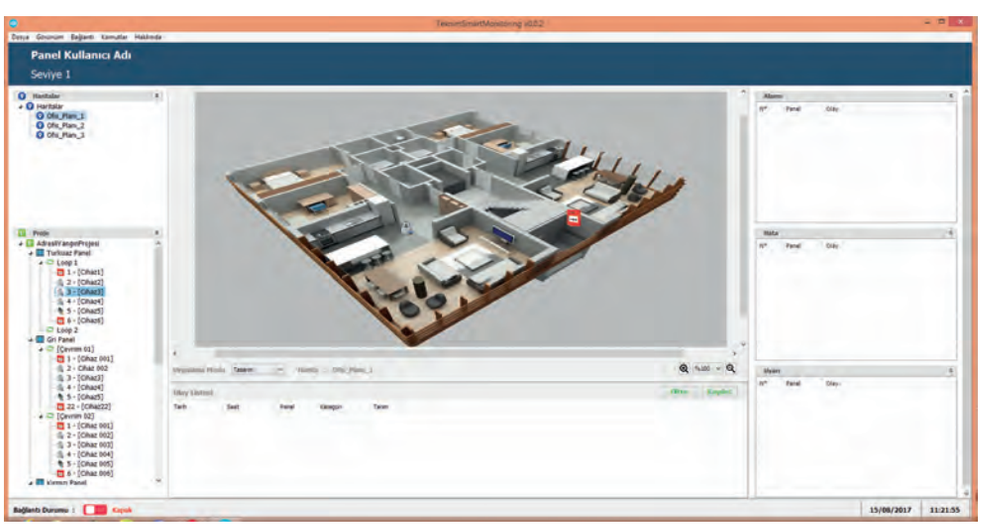
It has two modes, design and monitoring. Design mode is project creation mode where new graphic maps are added to the project and devices are placed on the added maps.

Monitoring is the mode in which created monitoring project communicates with the panel.

TFY-2001, 1 Control Panel 5 Users
TFY-2006, 1-6 Control Panels 10 Users
TFY-2016, 1-16 Control Panels 20 Users

GENERAL SPECIFICATIONS

- Connection to one or more panels via Ethernet Connection
- Graphic interface view
- Display of POP-UP alarm information when an alarm occurs
- Transition between maps in case of multiple fire alarms and graphical viewing of event location
- Send emails up to 3 users
- Remote command sending for cases requiring intervention (Buzzer silence, siren silence, evacuation, reset)
- Multiple map format support (.png, .bmp and .jpeg)
- Device addition on the map by drag-drop feature
- Display/save unlimited number of event logs by filtering (.txt, .xlxs, .pdf)
- Multi-language support (Turkish, English)



TFD-1250
ANALOG ADDRESSABLE OPTICAL SMOKE DETECTOR

EN-54-7

TFD-1250 Addressable Optical Smoke Detector uses unique smoke chamber perfected by Teknim engineers through long term fluid mechanics and optic refraction tests. Fire is detected by optical sensing technology. It has a series of algorithms developed to minimize faulty detections and to provide pollution warning. It enables a flexible operation via configuration options provided on the panel. Sensitivity levels are adjustable. Smoke chamber can be easily removed for cleaning in case of possible pollutions in excessively dusty environments.

GENERAL SPECIFICATIONS

- EN54-7 Certified
- Detects smoke particles in the environment via Light Scatter principle and generates alarm
- Addressed with TFCM-1801 Device Programming Module
- Low current consumption allowing 240 detectors addressing in each loop
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- LEDs can be optionally deactivated
- 3 different detection sensitivities adjustable from the control panel and configuration software (High, Medium, Low)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Metallic cage preventing entrance of bugs, flies and foreign objects into detector sensing chamber
- Adaptive protection preventing faulty alarms by sampling the environment continuously
- Advanced pollution algorithm that continuously measures pollution level and warning the user from detector and panel screen for stable and accurate operation
- Day/Night operation modes that can be programmed automatically or by user for alarm verification
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Easy to clean smoke chamber
- Aesthetic and elegant design fits any environment
- Label apparatus that can be installed to the bottom of detector for easy viewing of detector address by technical personnel (Optional)

TFD-1250 Technical Specifications	
Standard	EN54-7
Operating Type	Optical
Detection Level	h:0,12 - m:0,15 - l:0,18 dB/m
Power	18 - 32Vdc
Average Consumption	80uA@32V
Alarm Consumption	3mA
Indicator Current	10mA
Contact Output	NO
Starting Time	15 sec.
Weight (Include Base / Not)	183 gr / 125 gr
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10˚C ~ 55˚C
Humidity	95% RH
Protection Class	IP30

TFD-1260
ANALOG ADDRESSABLE HEAT DETECTOR (FIXED HEAT AND HEAT RISE)

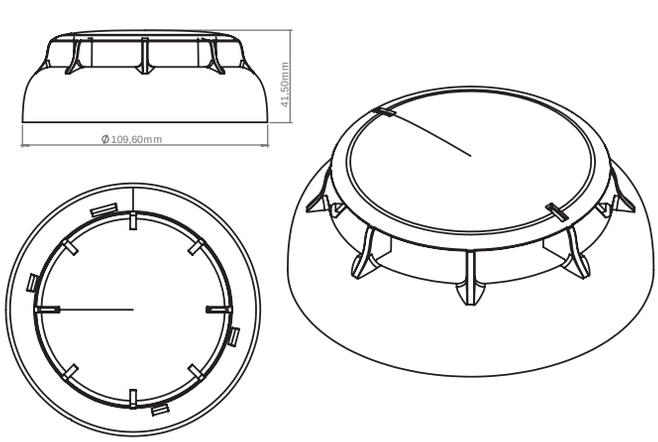
EN-54-5

TFD-1260 Addressable heat detector uses heat detection technologies to sense fire. It has a series of algorithms developed to minimize faulty detections. It enables a flexible operation via configuration options provided on the panel.

Detector can work as Fixed Heat or Heat Rise which can be chose from control panel or configuration software.

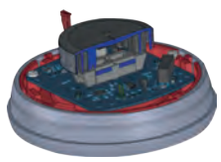
GENERAL SPECIFICATIONS

- EN54-5 Certified
- Designed with 2 NTCs to ensure more accurate and precise temperature measurement
- Detector can be operating as A2S or A2R class
- Addressed with TFCM-1801 Device Programming Module
- Low current consumption allowing 240 detectors addressing in each loop
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- LEDs can be optionally deactivated
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Aesthetic and elegant design fits any environment
- Label apparatus that can be installed to the bottom of detector for easy viewing of detector address by technical personnel (Optional)



TFD-1260 Technical Specifications	
Standard	EN54-5
Operating Type	A2S, A2R
Power	18 - 32Vdc
Average Consumption	80uA@32V
Alarm Consumption	3mA
Indicator Current	10mA
Contact Output	No
Weight (Include Base / Not)	183 gr / 125 gr
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10˚C +70˚C
Humidity	95% RH
Protection Class	IP30

TFD-1270
ANALOG ADDRESSABLE MULTI DETECTOR (OPTICAL SMOKE AND HEAT)



EN-54-7

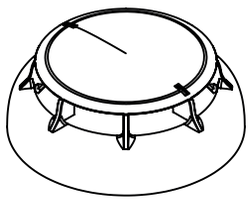
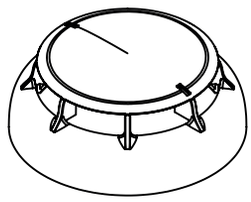
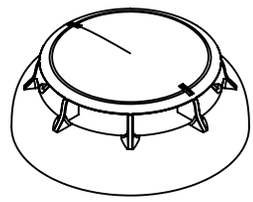
TFD-1270 Addressable Multi detector uses combination of optical and heat detection technologies to sense fire. Addressable Multi Detector uses unique smoke chamber perfected by Teknim engineers through long term fluid mechanics and optic refraction tests. Fire is detected by optical sensing technology. It has a series of algorithms developed to minimize faulty detections and to provide pollution warning. It enables a flexible operation via configuration options provided on the panel. Sensitivity levels are adjustable. Smoke chamber can be easily removed for cleaning in case of possible pollutions in excessively dusty environments.

The operating logic of the detector can be changed from the control panel or software. Detector can be work as "Only Smoke", "Only Heat", "Smoke and Heat" and "Smoke or Heat".

GENERAL SPECIFICATIONS

- EN54-7 and EN54-5 Certified
- Detects smoke particles in the environment via Light Scatter principle and generates alarm
- Detector also works as A2S class
- Detector can be operated in 4 different types. Only Smoke, Only Heat, Smoke and Heat, Smoke or Heat
- Addressed with TFCM-1801 Device Programming Module
- Low current consumption allowing 240 detectors addressing in each loop
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- LEDs can be optionally deactivated
- 3 different detection sensitivities adjustable from the control panel and configuration software (High, Medium, Low)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Metallic cage preventing entrance of bugs, flies and foreign objects into detector sensing chamber
- Adaptive protection preventing faulty alarms by sampling the environment continuously
- Advanced pollution algorithm that continuously measures pollution level and warning the user from detector and panel screen for stabile and accurate operation
- Day/Night operation modes that can be programmed automatically or by user for alarm verification
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Easy to clean smoke chamber
- Aesthetic and elegant design fits any environment
- Label apparatus that can be installed to the bottom of detector for easy viewing of detector address by technical personnel (Optional)

TFD-1270 Technical Specifications	
Standard	EN54-5, EN54-7
Operating Type	Optical / Heat
Detection Level	h:0,12 - m:0,15 - l:0,18 dB/m, A2S (Between 55°C-70°C)
Power	18-32VDC
Average Consumption	80uA@32V
Alarm Consumption	3mA
Indicator Current	10mA
Contact Output	No
Starting Time	15sec.
Weight (Include Base / Not)	183 gr / 125 gr
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10˚C +70˚C
Humidity	95% RH
Protection Class	IP30

Technical Specifications	TFD-1250	TFD-1260	TFD-1270
Standard	EN54-7	EN54-5	EN54-5, EN54-7
Operating Type	Optical	Fixed Heat – Heat Rise	Optical / Heat
Detection Level	h:0,12 - m:0,15 l:0,18 dB/m	A2S A2R (Between 55°C-70°C)	h:0,12 - m:0,15 - l:0,18 dB/m, A2S (Between 55°C-70°C)
Electrical			
Power	18 - 32Vdc	18 - 32Vdc	18 - 32Vdc
Average Consumption	80uA@32V	80uA@32V	80uA@32V
Alarm Consumption	3mA	3mA	3mA
Indicator Current	10mA	10mA	10mA
Contact Output	No	No	No
Starting Time	15 sec.	-	15 sec.
Mechanical			
Weight (Include Base / Not)	183 gr / 125 gr	183 gr / 125 gr	183 gr / 125 gr
Dimensions (mm)	Ø110, h42	Ø110, h42	Ø110, h42
Body Material and Color	ABS Plastic – White	ABS Plastic – White	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²	0,4mm² - 1,5mm²	0,4mm² - 1,5mm²
Alarm Indicator LED	RED	RED	RED
Status LED	Blue	Blue	Blue
Environmental			
Operating Temperature	-10˚C +55˚C	-10˚C +70˚C	-10˚C +70˚C
Humidity	95% RH	95% RH	95% RH
Protection Class	IP30	IP30	IP30

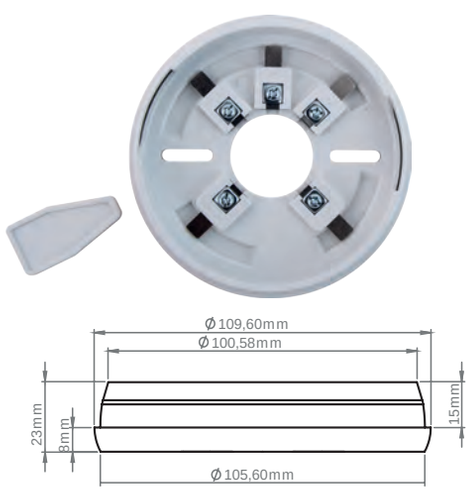
TFA-1196
REMOTE INDICATOR

In cases where alarm LEDs are not visible due to installation of detectors on high ceilings, false ceilings, raised floor, restricted access rooms etc., this device is used as an additional indicator light. The big red LED in 10mm diameter can be seen even from high ceiling.

TFA-1196 Technical Specifications	
LED	Red
Light	Red (Ø 10mm) ~150mcd
Weight	42gr.
Dimensions (mm)	85X85X21
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Operating Temperature	10-32VDC
Alarm Consumption	2,2mA.@24VDC
Operating Temperature	-10/+85ºC 0-%95 Rh.
Protection Class	IP30

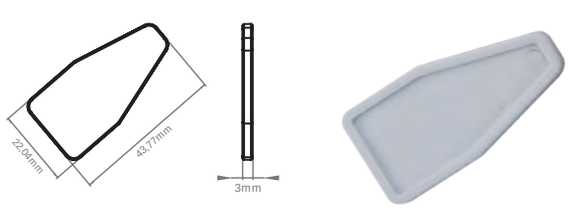
TFA-0120
DETECTOR BASE

Teknim TFA-0120 Universal detector base is developed to be used with all Teknim Fire detectors. Insert type contact structure minimizes non-contact problems on the field.



TFA-0121
DETECTOR LABEL APPARATUS

TFA-0121 is a label apparatus designed to be installed on detector base to easily view address information of detectors in the systems.

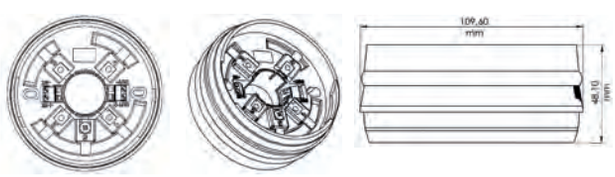


TFM-128X
DETECTOR BASE MODULES

TFM-128X modules can be used with Teknim analog addressable detectors (TFD-1250, TFD-1260 and TFD-1270). TFM-128X bases can be in a formed such as isolator, buzzer and flasher which design to meet all needs for warning on the detectors.

GENERAL SPECIFICATIONS

- LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display shortcut and alarm conditions (Yellow/Red)
- 75dB sound level
- Different type of base options
- Label apparatus that can be installed to the bottom of base



TYPES

TFM-1281 Base with Buzzer
TFM-1282 Base with Flasher
TFM-1283 Base with Isolator
TFM-1284 Base with Isolator and Flasher
TFM-1285 Base with Isolator and Buzzer
TFM-1286 Base with Isolator, Buzzer and Flasher
TFM-1287 Base with Buzzer and Flasher

Technical Specifications	TFM-1281	TFM-1282	TFM-1283	TFM-1284	TFM-1285	TFM-1286	TFM-1287
Montage Type	Bottom	Bottom	Bottom	Bottom	Bottom	Bottom	Bottom
Operation	Buzzer	Flasher	Izolator	Flasher + Isolator	Buzzer + Isolator	Buzzer + Flasher + Isolator	Buzzer + Flasher
LED Indicator	No	Yes	Yes	Yes	Yes	Yes	Yes
Buzzer	Yes	No	No	No	Yes	Yes	Yes
Sound Level	75dB	-	-	-	75dB	75dB	75dB
Flasher	No	Yes	No	Yes	No	Yes	Yes
Power	15-32V	15-32V	15-32V	15-32V	15-32V	15-32V	15-32V
Standby Consumption	15µA	15µA	15µA	15µA	15µA	15µA	15µA
Alarm Consumption	2mA	4mA	15µA	4mA	2mA	6mA	6mA
Weight	120gr	120gr	120gr	120gr	120gr	120gr	120gr
Dimensions (mm)	Ø109,5 h48	Ø109,5 h48	Ø109,5 h48	Ø109,5 h48	Ø109,5 h48	Ø109,5 h48	Ø109,5 h48
Body Material and Color	ABS White	ABS White	ABS White	ABS White	ABS White	ABS White	ABS White
Operating Temperature	-10°C ~ 70°C	-10°C ~ 70°C	-10°C ~ 70°C	-10°C ~ 70°C	-10°C ~ 70°C	-10°C ~ 70°C	-10°C ~ 70°C
Humidity	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH

TFD-1170
ANALOG ADDRESSABLE NATURAL GAS DETECTOR

TFD-1170 is a natural gas detector that can be connected to addressable fire detection systems. It is equipped with an 85dB on-board buzzer for audio warning, and with red/ yellow/ green colored led indicators for visual warning.

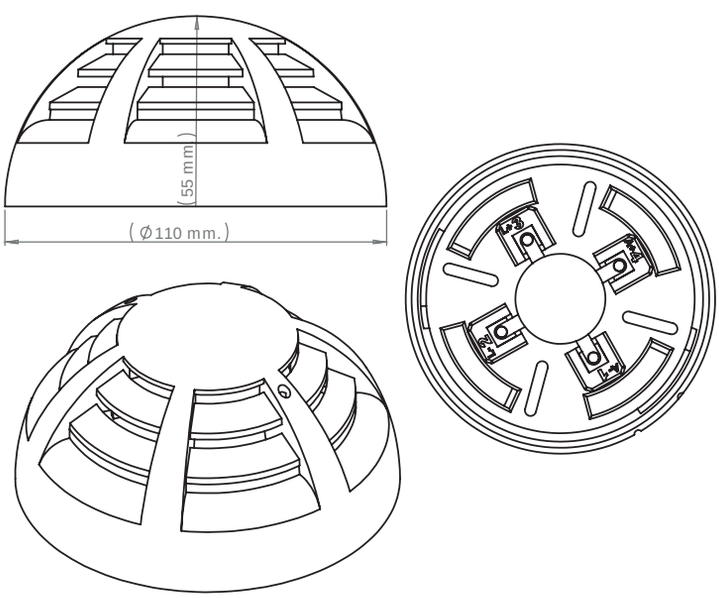
TFD-1170 detectors are addressed by TFCM-1801 Addressing Module. Use of the module eliminates repeated addresses.

Alarm detection and filtering algorithm directly transmits precise and reliable natural gas alarm information to the panel. Output modules can check solenoid valves (optional devices) in scenarios to be created via TFY-1000 system configuration software.

TFD-1170 addresses natural gas detector is suitable for ceiling and wall installations.

GENERAL SPECIFICATIONS

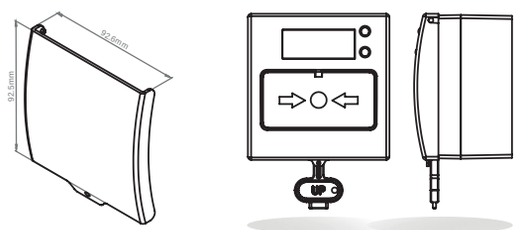
- TSE Certified
- 85 dB Alarm Sound Level
- TEST button for buzzer and LEDs
- 2x LED indicators enabling viewing from all directions
- Insert type contact structure eliminating non-contact problems



TFD-1170 Technical Specifications	
Standard	TS-EN 50184-1
Operating Type	MQ5 Gas Sensor
Device Type	A
Detection Level	%10 LEL
Sound Indicator	Continuous: Gas Alarm Intermittent: Sensor Fault
Sound Level	≥85dB (at 1mt)
LED Indicator	Alarm: RED - Fault: Yellow Normal: Green
Test Button	Yes
Power	18–32 VDC
Average Consumption	<50uA
Alarm Consumption	<60uA
External Power	12-30 VDC
External Powered Consumption	50mA @24VDC
External Powered Alarm Consumption	60mA @24VDC
Start Time	3 min.
Dimensions (mm)	Ø110, h50
Body Material and Color	ABS Plastic – White
Operating Temperature	-10°C ~ +55°C
Humidity	95% RH
Protection Class	IPX2D

TFB-1166
ANALOG ADDRESSABLE MANUAL CALL POINT WITH ISOLATOR, RESETTABLE

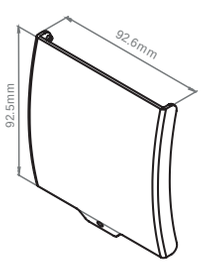
EN-54-11 EN-54-17

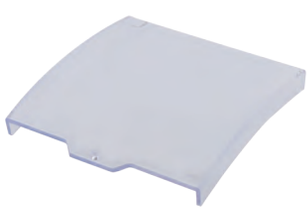


TFB-1166 is a manual call points with isolator. It is suitable for flush and surface mounting. An optional transparent protective cover can be installed. Operated with Teknim TFP-12XX panels using flashlink protocol. In case of short circuit, damage section is removed from the loop line to prevent system (loop line) crash.

TFA-0165 TRANSPARENT PROTECTIVE COVER

The cover is made of robust poly-carbon transparent material. It is used to prevent accidental button activation.

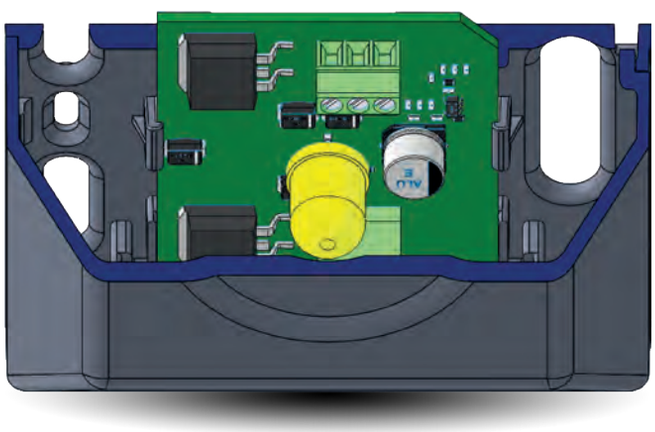


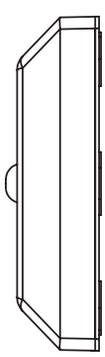


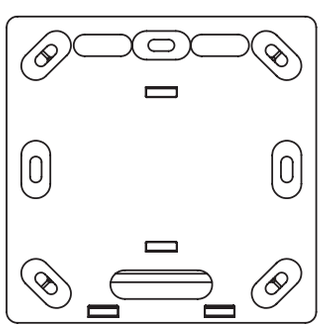
TFB-1166 Technical Specifications	
Standard	EN 54-11/17
Operating Type	A Type Manual
Resettable	Yes
Power	10-32VDC
Standby Consumption	1,5mA.
Alarm Consumption	6mA.
Shortcut Isolator Consumption	8mA.
Weight	145gr.
Dimensions (mm)	86x55x88mm
Body Material and Color	RAL3001 RED
Cable Type	0,4mm ~ 2.0mm
Status LED	RED
Status LED	Blue
Isolator LED	Yellow
Type of Fragile Element	Resettable Polycarbonate
Operating Temperature	-10°C ~ 60°C
Humidity	≤93% RH at +40°C
Protection Class	IP30

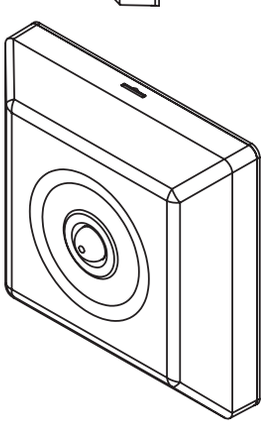
TFM-1990
ISOLATOR MODULE

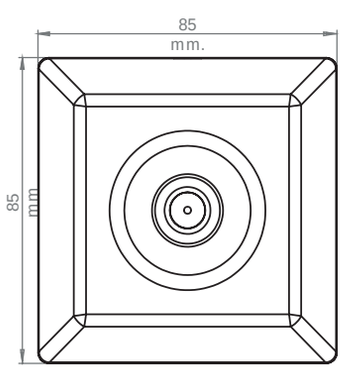
Module is used on loop line with TFP-12XX addressed panels. It does not take any address and protects the system in case of any short-circuit on the loop line.

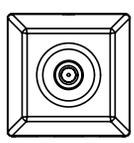












TFM-1990 Technical Specifications	
Led	Yellow
Light	150mcd
Power	10-32VDC
Standby Consumption	850µA.
Alarm Consumption	1,4mA.
Weight	46gr.
Dimensions (mm)	85X85X21
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Operating Temperature	-10/+85ºC
Humidity	0-%95 Rh.
Protection Class	IP30

TFM-1190
CONVENTIONAL ZONE AND SIREN MODULE

TFM-1190 Conventional Zone and Siren Module is a module which designed to be used with TFP-12xx series addressable fire alarm panels and allows the use of conventional devices in the addressable system, which can transmit alarm and fault information via the loop in a zonal sense and gives a siren output.

For the conventional input status, the user can choose between the event types “Alarm, Evacuation, Reset, Silent, Fault, None”. It is also possible to select from “Siren, General Siren, General Fault, Zonal Alarm, Zonal Siren, Zonal Fault, None” event types for siren output. The module has 24V external power supply input. The external supply is used for the supply of conventional devices and the siren outputs. The external supply is supervised for interruptions on power.

GENERAL FEATURES

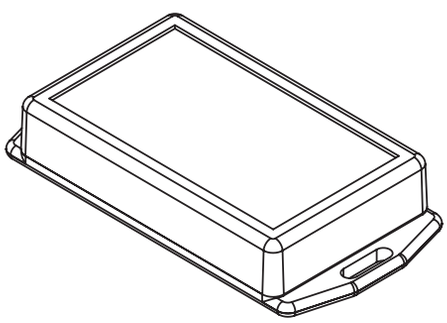
- Adjustable short circuit, open circuit and alarm current
- Adjustable reset time
- 32 detectors per zone and unlimited buttons
- Two processor and isolated hardware design
- 2 LED indicators for power and communication / alarm
- Suitable for wall and rail mounting

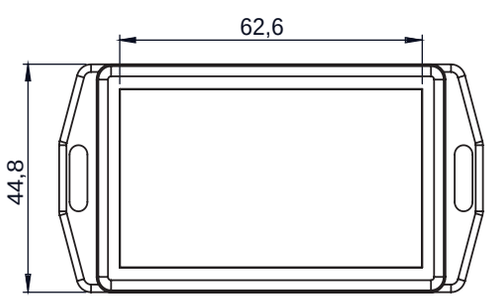
TFM-1190 Technical Specifications	
Standard	EN 54-18 (Conformity)
Power	18–32 VDC
Standby Consumption	150uA
Alarm Consumption	1,5 mA
External Power	22V- 26VDC
Standby Consumption from Ext Power	20mA (@24V) + Zone and Sounder Consumption
Alarm Consumption from Ext Power	40mA (@24V) + Zone and Sounder Consumption
Number of Detector Support	32
Basic alarm current	20mA (@24V)
Cable Resistance	40 ohm
Cable Distance	1,5km 1,5mm^2
Cable Type	2 x 1,5mm^2 J-Y(St)Y...Lg
Dimensions (mm)	110x76x27mm
Body Material and Color	White, ABS Plastic
Weight	140 gr
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH

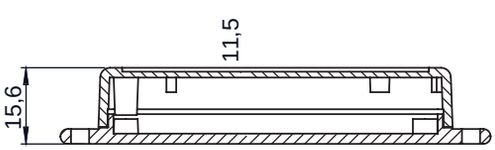
TFM-1430
INPUT/OUTPUT MODULE

EN-54-18

TFM-1430 module is a combination of input (monitoring) and output (control) modules. 3rd party detectors can be integrated in addressable system through this module. It also supports to control such systems like; elevator, ventilation and access control which can be set by control panel according to desired fire scenarios.







TFM-1430 Technical Specifications

Standard	EN 54-18
Operation Type	Input / Output
Power	15-32VDC
Standby Consumption	180µA
Alarm Consumption	500µA
Weight	50gr
Dimensions (mm)	15,6 x 44,8 x 62,6mm
Body Material and Color	ABS Plastic White
Cable Type	0,8mm - 1,5mm^2
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

TFM-1XXX
INPUT/OUTPUT MODULES

TFM-1010 module is used to monitor dry contact. Operation of the input as “Normally Open” or “Normally Closed” is selected over the panel. Whether status changes of input models will be monitored for once or continuously can also be selected from the panel.

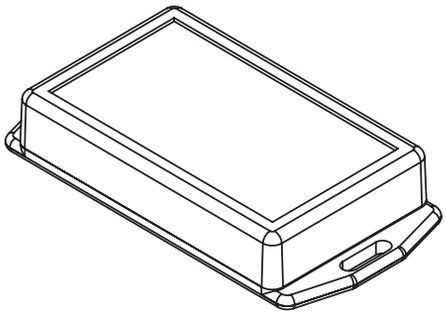
TFM-1110 module is used to control auxiliary alarm devices requiring supply. External supply is monitored by the module.

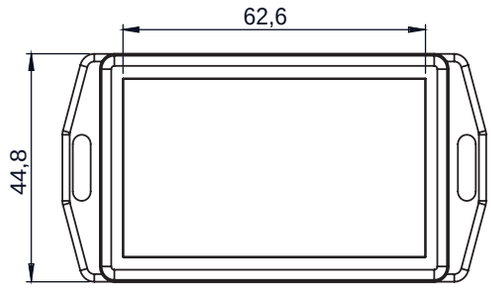
TFM-1220 module is a combination of TFM-1110 and TFM-1010 modules. It is used to control auxiliary alarm devices requiring both dry contact monitoring and supply.

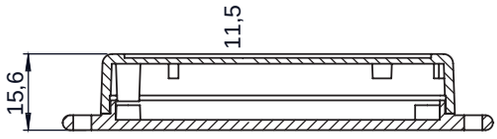
TFM-1320 module is used to provide dry contact for operation of external alarm devices. Relay contacts are 30Vdc 2A Form C.

DEVİCE TYPES

TFM-1010 Input Module
TFM-1110 Output Module with External Power
TFM-1220 Input / Output Module with External Power
TFM-1320 Output Module







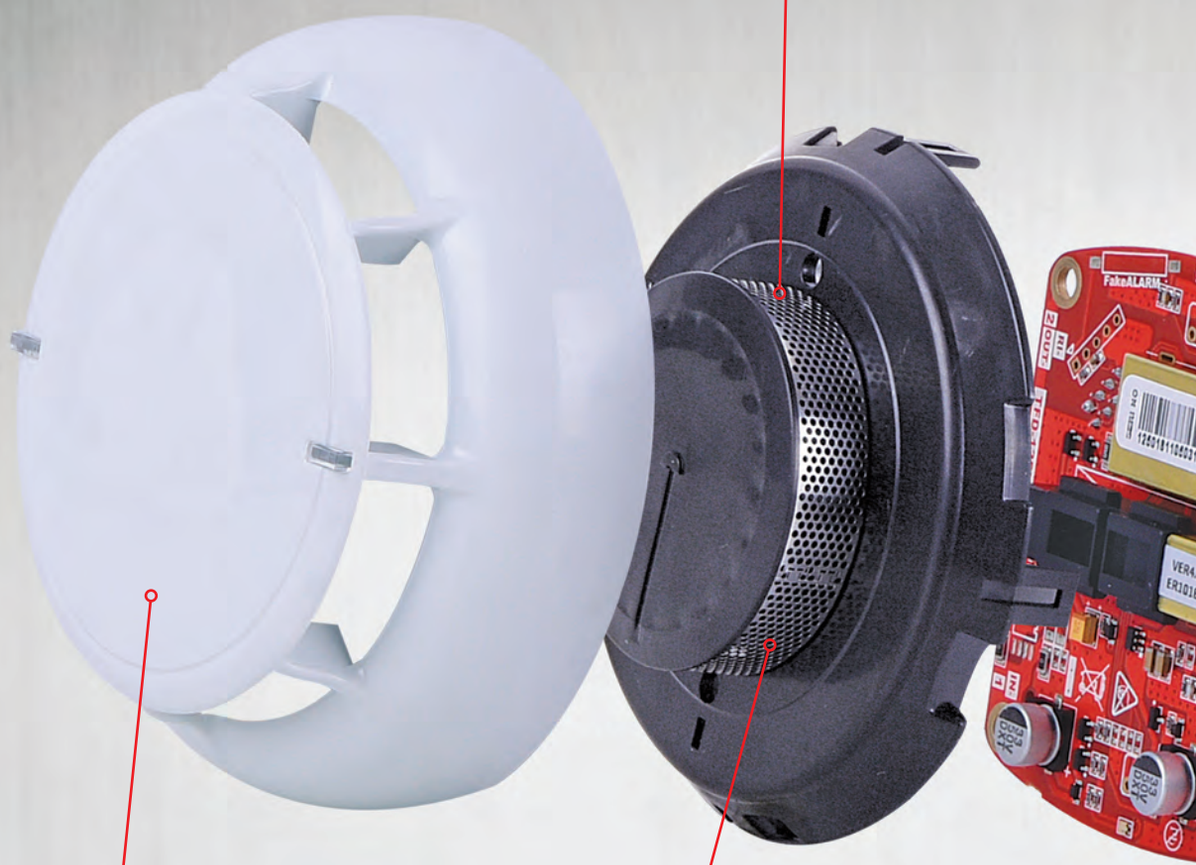
TFM-1XXX Technical Specifications	
Power	15-32VDC
Standby Consumption	180uA (@24V)
Alarm Consumption	500uA (@24V)
Weight	50gr(max)
Dimensions (mm)	15,6x44,8x62,6
Body Material and Color	ABS Plastic White
Cable Type	0,8mm - 1,5mm^2
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

CONVENTIONAL SYSTEMS

Detection by High Level Technology

Teknim TFD series detectors are design to meet earliest and verified warning needs of a fire condition. It is developed by highest level technologies and uses its own special software algorithms to prevent faulty alarms.

Unique smoke chamber designed and perfected by Teknim engineers through long term fluid mechanics and optic refraction tests

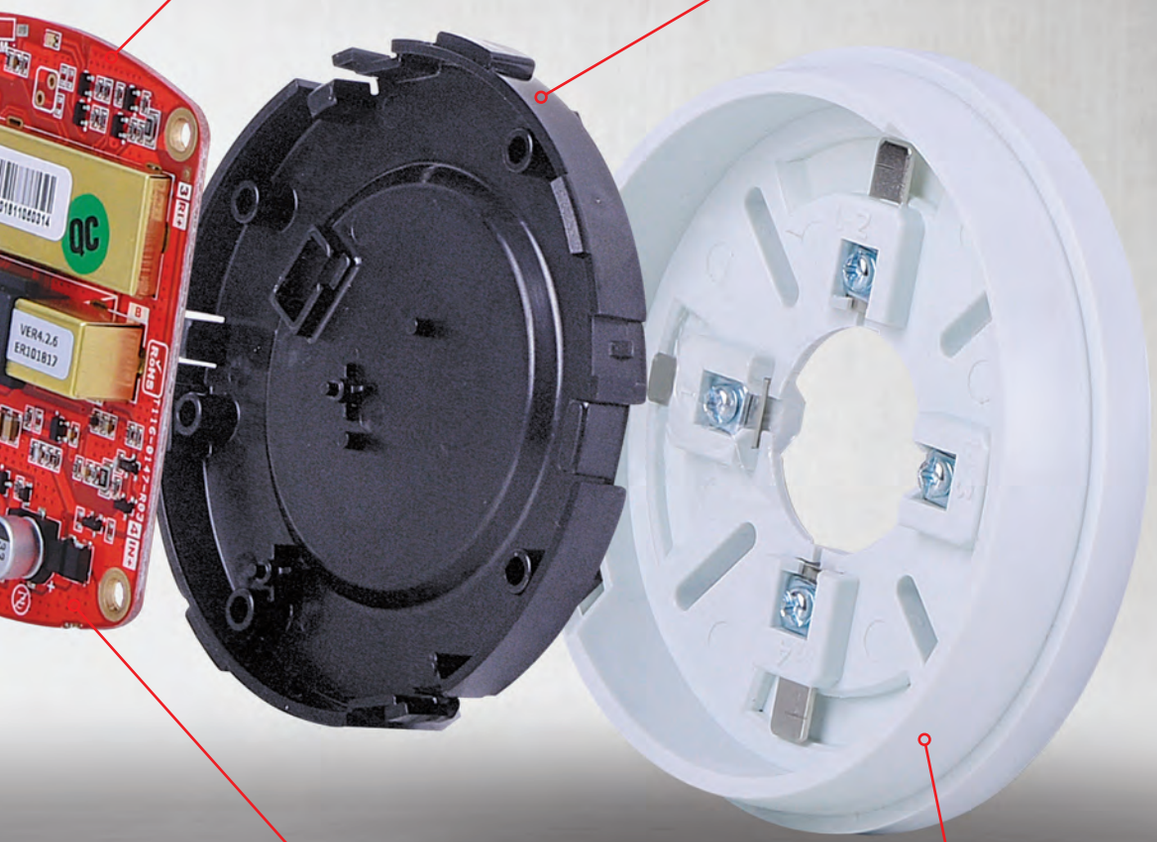


Aesthetic Design, suitable for any location

Easy remove to cleaning Smoke Chamber

Special software algorithms to eliminate external factors that may result faulty alarms

Parallel indicator connection



2Pcs LEDs indicators enables 360° view

Detector Base for easy Installation with Insert type contact structure

TFP-404
4 ZONE CONVENTIONAL FIRE ALARM PANEL

EN-54-2 EN-54-4

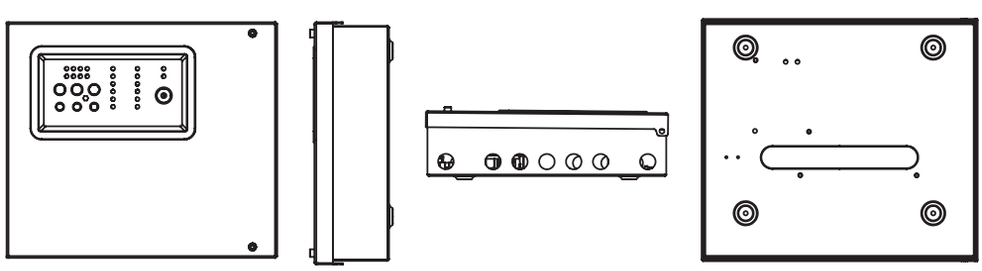
TFP-404 has 4 zones and maximum 32 Conventional fire detectors and manual call points can be connected to each zone. It is the first choice of professionals with its elegant metal body design, easy installation and high performance. The panel meets all technical values required under European Standards.

GENERAL SPECIFICATIONS

- EN 54-2 and EN 54-4 Certified
- Fully monitorable 4 zone capacity
- Maximum 32 Conventional fire detectors can be connected to each zone
- User-friendly, easy to manage indicator panel
- Separate fire and error LEDs for each zone
- Smart charging system extending battery life
- Smart protection system that prevents direct starting of device from battery for security reasons
- Walk-through test function that can be performed by a single person
- Disabling of each zone individually
- Supervision for siren outputs and zone inputs against faulty connections with EOL resistances
- 2X 500mA siren outputs allowing maximum 50 sounder connection (if used Teknim TFS-3192 sounders)
- 24VDC 500mA external supply output with automatic fuse (AUX)
- 1X NC/NO fire relay (Button alarm, detector alarm, etc.)
- 1X NC/NO error relay (Energy failure, zone failure, battery failure etc.)
- Key system to prevent unauthorized access
- Removable cover design enabling easy installation
- Switch Mode Power Supply (SMPS) (27.6VDC SMPS 1.5Ah Automatic Fuse)

TFP-404 Technical Specifications

Standard	EN54-2 / EN54-4
Zones	4
Maximum Numbers of Detectors	32
EOL	4K7 ohm, %5, 1/4W
Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	2A
Power Cable Type	3X 1,5mm^2
Imin	75mA
ImaxA	500 mA
ImaxB	1,5 A
Number of Monitored Sounder Outputs	2 x 24Vdc (15 device/32mA per device)
Number of Monitored Sounder Outputs	2 x 500mA
Sounder EOL	4K7 ohm, %5, 1/4W
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1 x 24Vdc
AUX Fuse	1 x 500mA
Weight	4,4Kg (Without Battery)
Dimensions (mm)	340 x 300 x 100 mm
Body material and color	Metal - Light Grey and Red
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30



TFP-408
8 ZONE CONVENTIONAL FIRE ALARM PANEL

EN-54-2 EN-54-4

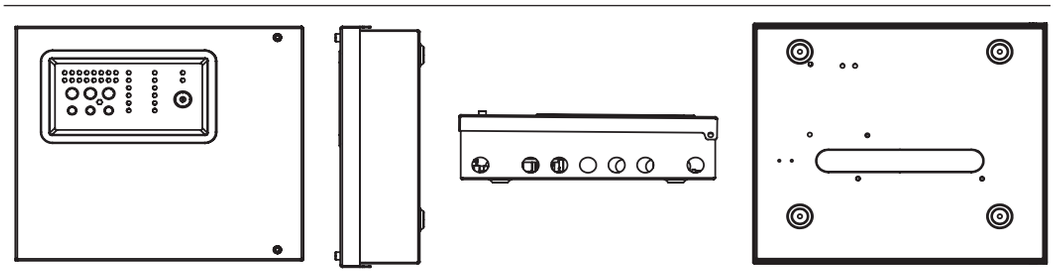
TFP-408 has 8 zones and maximum 32 Conventional fire detectors and manual call points can be connected to each zone. It is the first choice of professionals with its elegant metal body design, easy installation and high performance. The panel meets all technical values required under European Standards.

GENERAL SPECIFICATIONS

- EN 54-2 and EN 54-4 Certified
- Fully monitorable 8 zone capacity
- Maximum 32 Conventional fire detectors can be connected to each zone
- User-friendly, easy to manage indicator panel
- Separate fire and error LEDs for each zone
- Smart charging system extending battery life
- Smart protection system that prevents direct starting of device from battery for security reasons
- Walk-through test function that can be performed by a single person
- Disabling of each zone individually
- Supervision for siren outputs and zone inputs against faulty connections with EOL resistances
- 2X 500mA siren outputs allowing maximum 50 sounder connection (if used Teknim TFS-3192 sounders)
- 24VDC 500mA external supply output with automatic fuse (AUX)
- 1X NC/NO fire relay (Button alarm, detector alarm, etc.)
- 1X NC/NO error relay (Energy failure, zone failure, battery failure etc.)
- Key system to prevent unauthorized access
- Removable cover design enabling easy installation
- Switch Mode Power Supply (SMPS) (27.6VDC SMPS 1.5Ah Automatic Fuse)

TFP-408 Technical Specifications

Standart	EN54-2 / EN54-4
Zones	8
Maximum Numbers of Detectors	32
EOL	4K7 ohm, %5, 1/4W
Operating Voltage	230 / 110 VAC (+%10 / -%15)
Operating Frequency	50 / 60 Hz (±%5)
Power Fuse	2A
Power Cable Type	3 x 1,5mm^2
Imin	75mA
ImaxA	500 mA
ImaxB	1,5 A
Number of Monitored Sounder Outputs	2 x 24Vdc (15 device/32mA per device)
Number of Sounder Outputs	2 x 500mA
Sounder EOL	4K7 ohm, %5, 1/4W
General Error Relay	1X NC/NO Dry Contact, 30V 2Ah
Fire Relay	1X NC/NO Dry Contact, 30V 2Ah
AUX	1 x 24Vdc
AUX Fuse	1 x 500mA
Weight	4,4Kg (Without Battery)
Dimensions (mm)	340 x 300 x 100 mm
Body material and color	Metal - Light Grey and Red
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30



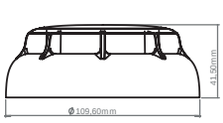
TFD-3230
CONVENTIONAL OPTICAL SMOKE DETECTOR

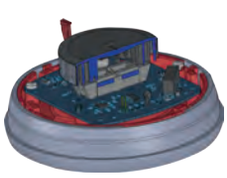
EN-54-7

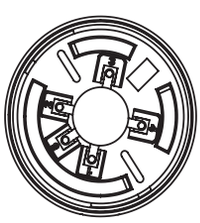
TFD-3230 Conventional Optical Smoke Detector uses a unique smoke chamber perfected by Teknim engineers through long term fluid mechanics and optic refraction tests. Fire is detected by optical sensing technology. Detector has a series of algorithms developed to minimize faulty detections and to provide pollution warning. Smoke chamber can be easily removed for cleaning in case of possible pollutions in excessively dusty environments.

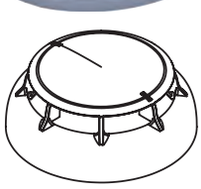
GENERAL SPECIFICATIONS

- EN54-7 Certified
- Detects smoke particles in the environment via Light Scatter principle and generates alarm
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Metallic cage preventing entrance of bugs, flies and foreign objects into detector sensing chamber
- Advanced pollution algorithm that continuously measures pollution level and warning the user from detector and panel screen for stable and accurate operation
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Easy to clean smoke chamber
- Aesthetic and elegant design fits any environment
- Compatible with any brand of conventional fire panel









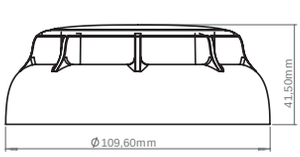
TFD-3230 Technical Specifications	
Standard	EN54-7
Operating Type	Optik
Detection Level	(~ 0,15db/m)
Device Type	A
Power	18V(min) – 30V(max)
Average Consumption	30uA (@24V)
Alarm Consumption	50mA @24V (Limited with 470 Ohm)
Indicator Current	10mA @24V (Limited with 2K2Ohm)
Starting Time	15 sec.
Weight (Include Base / Not)	183/125gr.
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10°C ~ 55°C
Humidity	95% RH
Protection Class	IP30

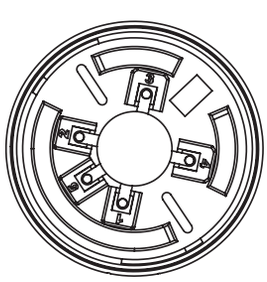
TFD-3240
CONVENTIONAL HEAT DETECTOR

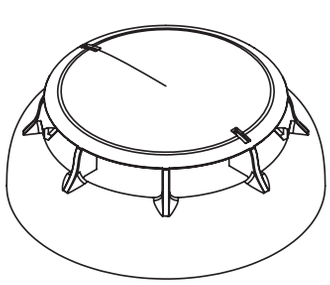
TFD-3240 Conventional heat detector uses heat detection technology to detect fire. It has a series of advanced algorithms to minimize faulty detections.

GENERAL SPECIFICATIONS

- Conforms EN54-5
- Designed with 2 NTCs to ensure more accurate and precise temperature measurement
- Detector can be operating as A2S class
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Aesthetic and elegant design fits any environment
- Compatible with any brand of conventional fire panel







TFD-3240 Technical Specifications	
Standard	Conforms EN54-5
Operating Type	A2S
Detection	A25 (55-70°C)
Device Type	A
Power	18V(min) – 30V(max)
Average Consumption	30uA (@24V)
Alarm Consumption	50mA (@24V)
Indicator Current	10mA (@24V)
Weight (Include Base / Not)	183/125gr.
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10°C ~ 70°C
Humidity	95% RH
Protection Class	IP30

TFD-3250
CONVENTIONAL MULTI DETECTOR (OPTICAL SMOKE AND HEAT)

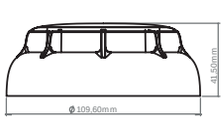
EN-54-5 **EN-54-7**

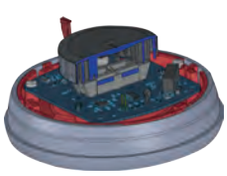
TFD-3250 Conventional Optical Smoke + Heat Detector uses optical and heat sensing technologies. Detector has a series of algorithms developed to minimize faulty detections. It can provide pollution warning; smoke chamber can be easily cleaned

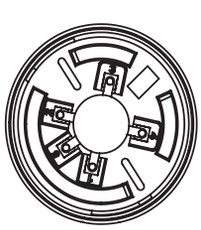
GENERAL SPECIFICATIONS

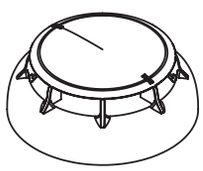
- EN54-7 and EN54-5 Certified
- Detects smoke particles in the environment via Light Scatter principle and generates alarm
- Detector also works as A2S class
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Metallic cage preventing entrance of bugs, flies and foreign objects into detector sensing chamber
- Advanced pollution algorithm that continuously measures pollution level and warning the user from detector and panel screen for stabile and accurate operation
- Insert type contact structure eliminating non-contact problems
- Parallel indicator connection option
- Easy to clean smoke chamber
- Aesthetic and elegant design fits any environment
- Compatible with any brand of conventional fire panel

TFD-3250 Technical Specifications	
Standard	EN54-5, EN54-7
Operating Type	Optical / Heat
Detection Level	(~ 0,15db/m) A25 (55-70°C)
Device Type	A
Power	18V(min) – 30V(max)
Average Consumption	30uA (@24V)
Alarm Consumption	50mA (@24V)
Indicator Current	10mA (@24V)
Starting Time	15 sn.
Weight (Include Base / Not)	183/125gr.
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Alarm Indicator LED	RED
Status LED	Blue
Operating Temperature	-10°C +70°C
Humidity	95% RH
Protection Class	IP30







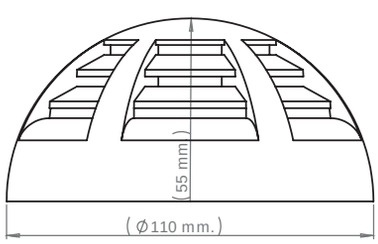


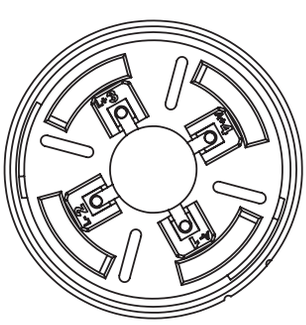
TSD-701
NATURAL GAS DETECTOR

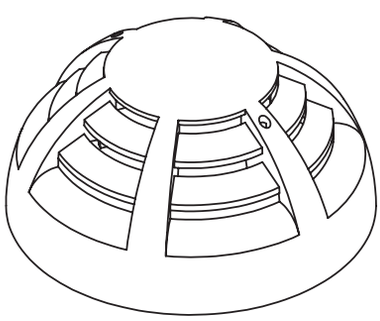
TSD-701 is a natural gas detector that can be connected to fire detection systems (NO) and Intruder alarm systems (NC) or to be used as a stand-alone device with 12-24V external power supply. It is equipped with an 85dB on-board buzzer for audio warning, and with red/ yellow/ green colored led indicators for visual warning. TSD-701 gas detector is suitable for ceiling and wall installations.

GENERAL SPECIFICATIONS

- TSE Certified
- 85 dB Alarm Sound Level
- TEST button for buzzer and LEDs
- 2x LED indicators enabling viewing from all directions
- Insert type contact structure eliminating non-contact problems
- NO Relay for Fire Alarm Systems and NC Relay for Intruder Alarm Systems



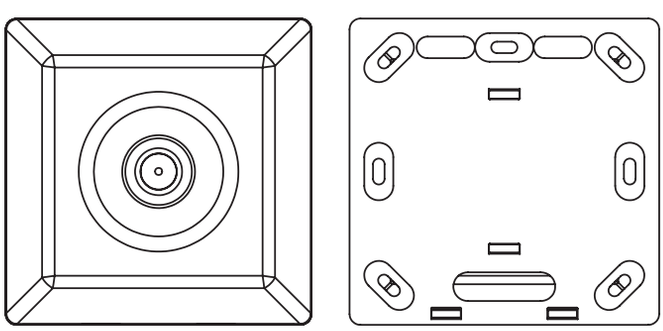


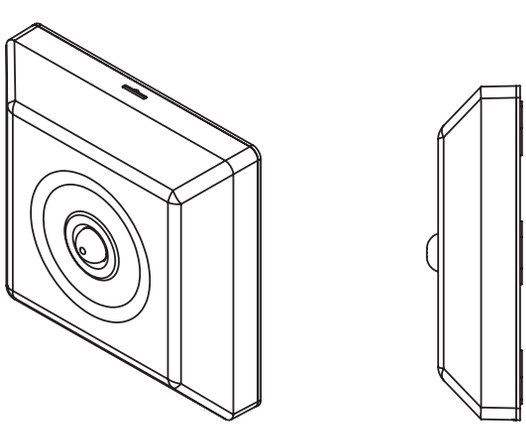


TSD-701 Technical Specifications	
Standard	TS EN 50194-1
Operating Type	MQ5 Gas Sensor
Device Type	A
Detection Level	%10 LEL
Sound Indicator	Continuous: Gas Alarm Intermittent: Sensor Fault
Sound Level	≥ 85dB (at 1mt)
LED Indicator	Alarm: RED - Fault: Yellow Normal: Green
Test Button	Yes
Power	12-24VDC
Average Consumption	12 VDC / 100mA 24 VDC / 50mA
Alarm Consumption	12 VDC / 100mA 24 VDC / 50mA
Relay	NO for Fire Systems NC for Intruder Systems
Start Time	3 min.
Dimensions (mm)	Ø110, h50
Body Material and Color	ABS Plastic – White
Operating Temperature	-10°C ~ +55°C
Humidity	95% RH
Protection Class	IPX2D

TFA-3196
REMOTE INDICATOR

In cases where alarm LEDs are not visible due to installation of detectors on high ceilings, false ceilings, raised floor, restricted access rooms etc., this device is used as an additional indicator light. The big red LED in 10mm diameter can be seen even from high ceiling.





TFA-3196 Technical Specifications	
LED	RED
Light	RED 150mcd
Power	10-32VDC
Alarm Consumption	2,2mA.@24V.
Weight	42 gr
Dimensions (mm)	85X85X21
Body Material and Color	ABS Plastic – White
Cable Type	0,4mm² - 1,5mm²
Operating Temperature	-10/+85ºC
Humidity	0-%95 Rh.
Protection Class	IP30

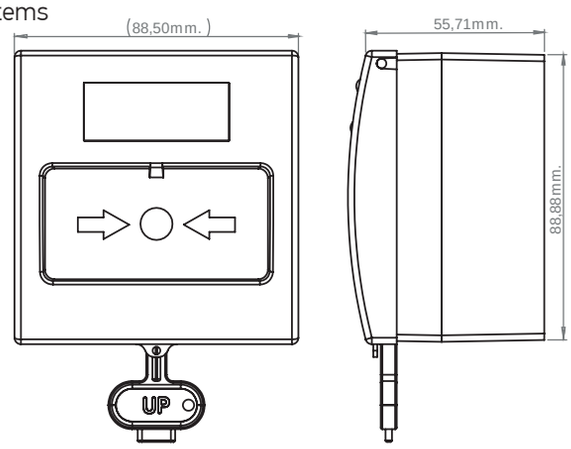
TFB-3165
CONVENTIONAL MANUAL CALL POINT, RESETTABLE

EN-54-11

TFB-3165 is designed to be connected to any brand of conventional fire detection and Intruder alarm systems. Internal 470-ohm resistance allow ease of installation. It is suitable for flush and surface mounting. An optional transparent protective cover can be installed. It is easily resettable via special key. Elegant design fits any environment.

GENERAL FEATURES

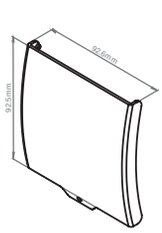
- EN 54-11 Certified
- Resettable
- NC/NO Selection
- Includes 470 Ohm resistance, does not require additional connection
- Transparent protection cover can be installed. Cover can be sealed
- Suitable for flush and surface mounting
- 5-30 VDC supply
- Compatible with all conventional fire and theft alarm systems



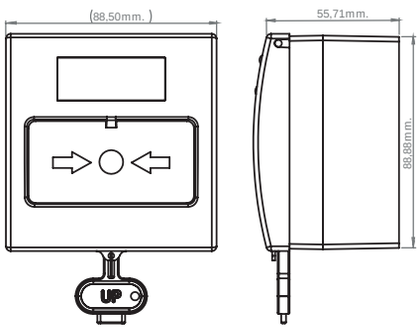
TFB-3165 Technical Specifications	
Standard	EN 54-11
Operating Type	A Type Manual
Relay	NC/NO/470R
Resettable	Yes
Power	5-30 VDC
Weight	165gr.
Dimensions (mm)	86x55x88mm
Body Material and Color	RAL3001 RED
Cable Type	0,4mm ~ 2.0mm
Type of Fragile Element	Resettable Polycarbonate
Operating Temperature	-10°C ~ 60°C
Humidity	≤93% RH at +40°C
Protection Class	IP30

TFA-0165 TRANSPARENT PROTECTIVE COVER

The cover is made of robust poly-carbon transparent material. It is used to prevent accidental button activation.



TFB-3165 X
CONVENTIONAL EMERGENCY BUTTONS



Designed to be connected to any brand of conventional fire detection and Intruder alarm systems. Internal 470-ohm resistance allow ease of installation. It is suitable for flush and surface mounting. An optional transparent protective cover can be installed. It is easily resettable via special key. Elegant design fits any environment.

GENERAL FEATURES

- Resettable
- NC/NO Selection
- Includes 470 Ohm resistance, does not require additional connection
- Transparent protection cover can be installed. Cover can be sealed
- Suitable for flush and surface mounting
- 5-30 VDC supply
- Compatible with all conventional fire and theft alarm systems

- TFB-3165W emergency call button – white
- TFB-3165B emergency stop button, for gas fire extinguisher systems - blue
- TFB-3165Y manual release button, for gas fire extinguisher systems – yellow
- TFB-3165G emergency exit door release button – green
- TFB-3165O smoke discharge button - orange

TFA-0165 TRANSPARENT PROTECTIVE COVER

The cover is made of robust poly-carbon transparent material. It is used to prevent accidental button activation.

TFB-3165W Technical Specifications	
Operating Type	A Type Manual
Relay	NC/NO/470R
Resettable	Yes
Power	5-30 VDC
Weight	165gr.
Dimensions (mm)	86x55x88mm
Color Codes	RAL 9010 White RAL 5002 BLUE RAL 1006 YELLOW RAL 6016 GREEN RAL2011 ORANGE
Cable Type	0,4mm ~ 2.0mm
Type of Fragile Element	Resettable Polycarbonate
Operating Temperature	-10°C ~ 60°C
Humidity	≤93% RH at +40°C
Protection Class	IP30

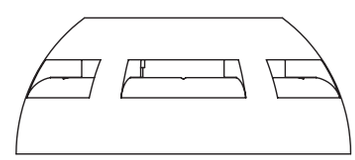
TFS-3192R/W
CONVENTIONAL FIRE ALARM SOUNDER WITH FLASHER

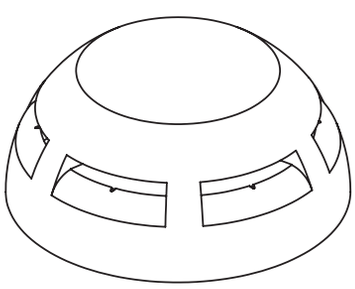
EN-54-3 EN-54-23

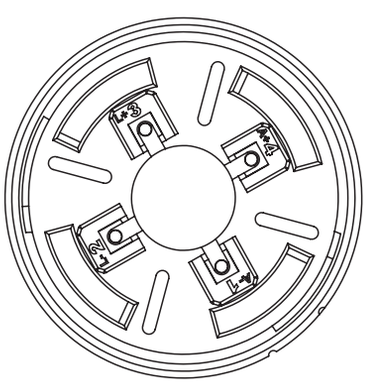
Teknim TFS-3192 series internal fire alarm flashers and sounder have aesthetic design and low power consumption and are suitable for use with any brand of fire detection systems.

GENERAL SPECIFICATIONS

- EN 54-3 and EN 54-23 Certified
- Suitable for flush and surface mounting
- Low power consumption
- 100dB high sound level
- IP21C protection class
- Piezo with leak-proof sealant
- Red/White, transparent UL94 non-flammable poly carbonate plastic frame







TFS-3192R/W Technical Specifications	
Standard	EN-54/3 EN-54/23
Operating Type	LED+Piezzo
Sound Level	100dB±2 dB (24VDC at 1 mt)
Coverage	W-2,4-4
Flasher	1 sec ON / 1 sec OFF
LED	RED/WHITE
LED Specifications	Wide angle 7x Bright LED
Sounder	Piezzo Element with leak-proof sealant
Power	24-28 VDC
Alarm Consumption	19mA.
Dimensions (mm)	Ø:110mm, h:55mm
Body Material	ABS Plastic
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Operating Temperature	-20°C ~ 55°C
Humidity	95% RH
Protection Class	IP21C

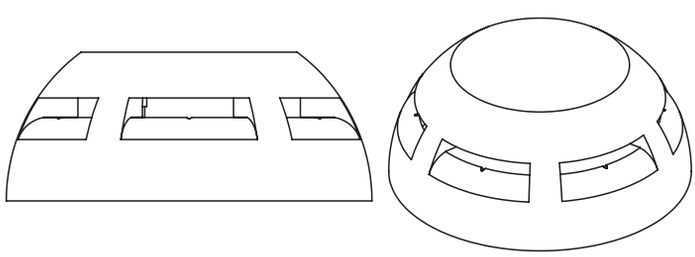
TFS-3191
CONVENTIONAL FIRE ALARM SOUNDER

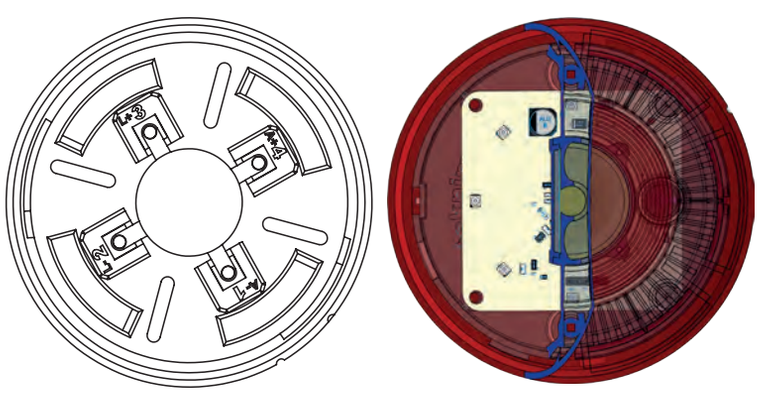
Teknim TFS-3192 series internal fire alarm sounder have aesthetic design and low power consumption and are suitable for use with any brand of fire detection systems.

GENERAL SPECIFICATIONS

- Suitable for flush and surface mounting
- Low power consumption
- 100dB high sound level
- IP21C protection class
- Piezo with leak-proof sealant
- Red/White, transparent UL94 non-flammable poly carbonate plastic frame

TFS-3191 Technical Specifications	
Standard	Conforms EN54-3
Operating Type	Piezo
Sound Level	100dB±2 dB (24VDC at 1 mt)
Sounder	Piezzo Element with leak-proof sealant
Power	24-28 VDC
Alarm Consumption	15 mA.
Dimensions (mm)	Ø:110mm, h:55mm
Body Material	Red, UL94 anti- flammable ABS plastic
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Operating Temperature	-20°C ~ 55°C
Humidity	95% RH
Protection Class	IP21C





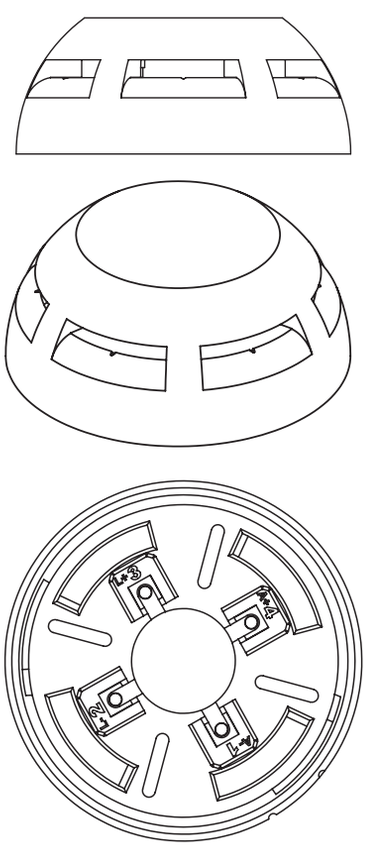
TFS-3193W/R
CONVENTIONAL FIRE ALARM FLASHER

EN-54-23

Teknim TFS-3199 series internal fire alarm flashers have aesthetic design and low power consumption and are suitable for use with any brand of fire detection systems.

GENERAL SPECIFICATIONS

- EN 54-23 Certified
- Suitable for flush and surface mounting
- Low power consumption
- IP21C protection class
- Red/White, transparent UL94 non-flammable poly carbonate plastic frame



TFS-3193W/R Technical Specifications	
Standard	EN-54/23
Operating Type	LED
Coverage	W-2,4-4
Flasher	1 sec ON / 1 sec OFF
LED	RED/WHITE
LED Specifications	Wide angle 7x Bright LED
Power	24-28 VDC
Alarm Consumption	6 mA.
Dimensions (mm)	Ø:110mm, h:55mm
Body Material	UL94 anti- flammable ABS Plastic
Cable Type	0.4mm ^{2} ~ 1.5mm ^{2}
Operating Temperature	-20°C ~ 55°C
Humidity	95% RH
Protection Class	IP21C

VAS-740F
OUTDOOR FIRE ALARM SOUNDER WITH FLASHER

VAS-740F Sounder with flasher designed for any brand of conventional fire detection systems, suitable for use in external environments.

GENERAL SPECIFICATIONS

- 6 x super bright LED / Flasher
- 110dB/24V - 100dB/12V

VAS-740F Technical Specifications	
Operating Type	Outdoor
Sound Level	110dB±5 dB (24VDC at 1 mt) 100dB±5 dB (12VDC at 1 mt)
Flasher	Wide angle 6x Bright LED
Power	12-28 VDC
Alarm Consumption	110 mA@24V 55 mA@12V
Dimensions (mm)	215 x 300 x 60 mm
Body Material and Color	UL 94 anti-flammable ABS plastic - RED
Operating Temperature	-20°C ~ 55°C

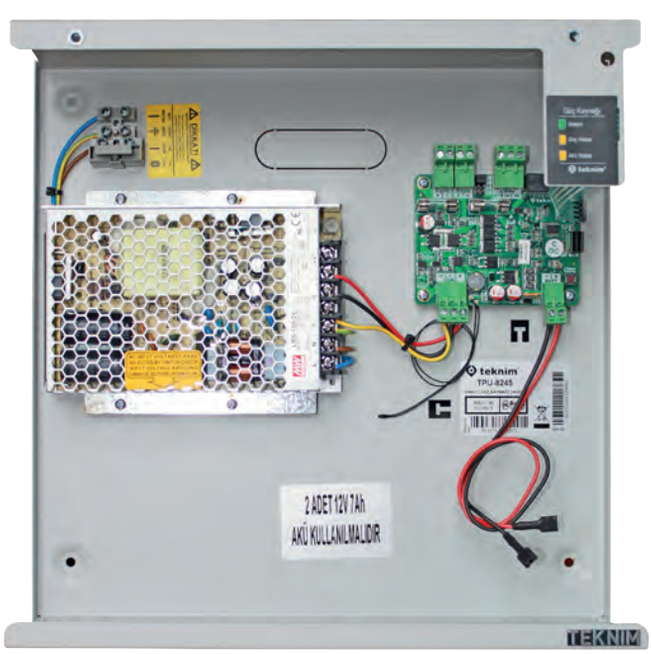
TPU-8245
EXTERNAL POWER SUPPLY 24V 5A

EN-54-4

TPU-8245 is 24VDC 5A uninterruptible power supplies with a n intelligent battery charger unit are designed to use in systems which require external power supply. Both input and outputs of devices are protected against short circuit and overload. The devices allow to use both 7Ah and 12Ah batteries.

GENERAL SPECIFICATIONS

- EN 54-4 Certified
- Selectable single or dual output
- Support 7Ah and 12Ah backup batteries
- Dry contact relay output for error
- Led indicators for fault diagnosis
- Intelligent battery charging unit with temperature compensation
- Wide input voltage range, 110 to 240VAC
- Protection against short circuit and overload conditions
- Fully enclosed and robust construction



TPU-8245 Technical Specifications	
Standard	EN54-4
Smart Charge	Yes
Error Relay	Yes
Outomatic Fused Output	Yes
Operating Voltage	200 V AC - 240 V AC
Operating Frequency	50 Hz - 60 Hz
Output Voltage	20 ~ 24 V DC +-%2
Number of Output	2
Output (S1 Closed, S2 Open) (S1 Open, S2 Closed)	Output-1: 5,0 A Output-2: 0,0 A Output-1: 2,5 A Output-2: 2,5 A
Backup Battery	2x12V 7Ah
Charging Voltage	27.6V @ 20°C
Discharge cut-off	< 20V
Body material and color	Metal RAL7305 Texture
Dimensions (mm)	310x102x300
Weight	3,25 Kg
Protection Class	IP30
Operating Temperature	-10°C ~ +55°C
Humidity	95% RH

TPS-2415
EXTERNAL POWER SUPPLY 24V 1.5A

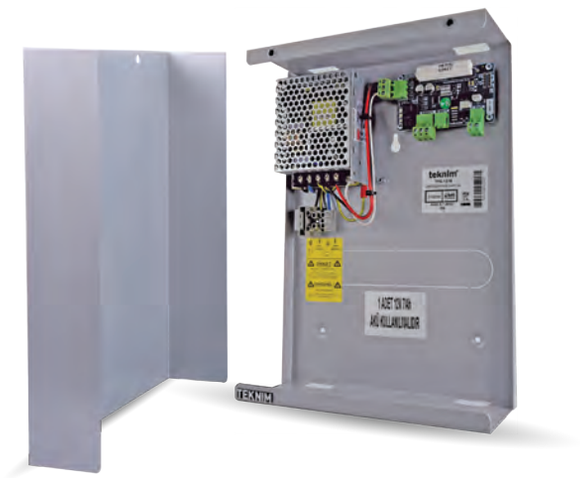
External power supply is used for additional power source requirements of fire alarm, Intruder alarm, camera or access control systems.

GENERAL SPECIFICATIONS

- Support 7Ah and 12Ah backup batteries
- Dry contact relay output for error
- Intelligent battery charging unit with temperature compensation

TPS-2415 Technical Specifications	
Smart Charge	Yes
Error Relay	Yes
Outomatic Fused Outputs	Yes
Operating Voltage	100 V AC - 240 V AC
Operating Frequency	50 Hz - 60 Hz
Output Voltage	26 ~ 29 V DC (when connected to Mains) 27,6 V DC (when connected to Mains) Nominal 20 °C 20 ~ 25 V DC (connected to Backup Battery)
Maximum Output Current	1.5A (Max)
Backup Battery	2x12V 7Ah
Charging Voltage	27.6V @ 20°C
Discharge cut-off	< 20V
Efficiency	%83
Body material and color	RAL9006 Grey
Dimensions (mm)	300x310x85
Operating Temperature	0°C ~ +45°C
Humidity	%95 @+40°C

TPS-1215
EXTERNAL POWER SUPPLY 12V 1.5A



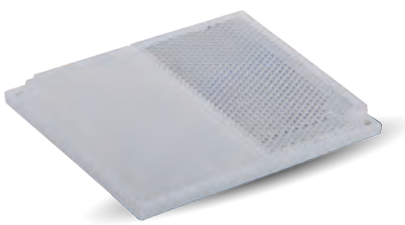
External power supply is used for additional power source requirements of fire alarm, Intruder alarm, camera or access control systems.

GENERAL SPECIFICATIONS

- Support 7Ah and 12Ah backup batteries
- Dry contact relay output for error
- Intelligent battery charging unit with temperature compensation

TPS-1215 Technical Specifications	
Smart Charge	Yes
Error Relay	Yes
Otomatic Fused Outputs	Yes
Operating Voltage	100 V AC - 240 V AC
Operating Frequency	50 Hz - 60 Hz
Output Voltage	12~14 VDC (when connected to Mains) 10~12.5 VDC (when connected to Backup Battery)
Maximum Output Current	1.5Ah
Backup Battery	1x12V 7Ah
Charging Voltage	13.6V @ 20°C
Discharge cut-off	< 10V
Efficiency	%83
Body material and color	RAL9006 Grey
Dimensions (mm)	300 x 220 x 85 mm
Operating Temperature	0°C ~ +45°C
Humidity	95% RH

TR6100
BEAM DETECTOR



TR6100 is a Beam detector used for fire detection particularly in large zones with high ceilings which are not suitable for standard detector mounting.

Internal Laser Pointer enables easy alignment of reflectors. It is very easy to install. It can be used with all fire detection panels.

GENERAL SPECIFICATIONS

- EN54-12 conformance is certified by LPCB
- Flawless alignment by digital guiding screen and laser beam marking
- Internal microprocessor
- Internal failure diagnosis
- Automatic compensation in case of weakened signals due to dust accumulation, displacement and worn transmitter
- Fire and Error Relay Outputs
- True user-friendly alignment method
- Includes Reflector Mirror
- 3 different versions with 20-40, 40-70, 70-100 meters

TR6100 Technical Specifications	
Standard	LPCB Pending, EN54-12, BS 5839 Part 1:2002
Operating Type	Beam Detector
Smoke Detection Precision	Yes
Detection Distance	20 - 40 meters 40-70 meters 70-100 meters
Detection Angle	±0.5° direction
Digital Screen Guide	Nixie Bottle
Alignment	Laser Beam Marker
Operating Temperature	-10°C ~ +50°C
Humidity	0 - 95%
Protection Class	IP30
Power	20 V ~ 28 V DC
Average Consumption	23mA
Alarm Consumption	33mA
Reset Time	Less than 2sec.
Relay Output	NC - NO 2.0A; 30VDC
Weight (Include Base / Not)	0.130 Kg
Dimensions (mm)	190.87 x 126.87 x 91.96
Body Material and Color	ABS Plastic – White
Alarm Indicator LED	RED: Fire Alarm - Yellow: Fault Green: Alignment

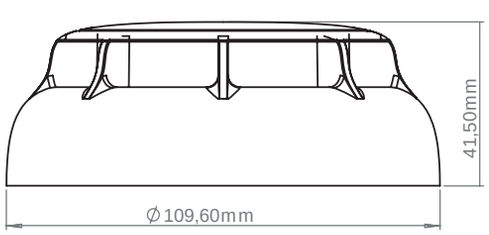
TSD-5135
OPTICAL SMOKE DETECTOR WITH RELAY OUT

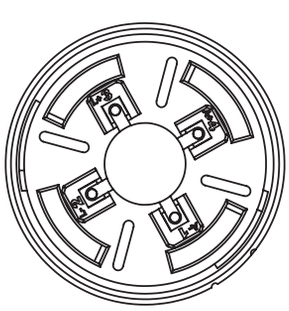
EN-54-7

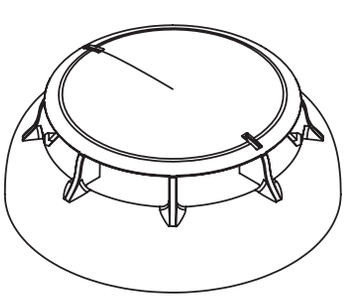
TSD-5135 Optical Smoke Detector uses unique smoke chamber perfected by Teknim engineers through long term fluid mechanics and optic refraction tests. Fire is detected by optical sensing technology. Detector has a series of algorithms developed to minimize erroneous detections. Smoke chamber can be easily removed for cleaning in case of possible pollutions in excessively dusty environments. Detector has 12V – NC contact output for Intruder alarm panels to detect fires.

GENERAL SPECIFICATIONS

- EN54-7 Certified
- 2 LED indicators enabling 360° view
- Rejection of temporary signals that can be sensed as alarm
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Easy to clean smoke chamber
- NC Relay Output







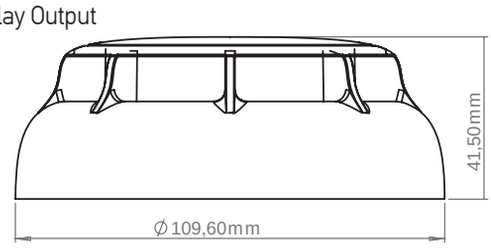
TSD-5135 Technical Specifications	
Standard	EN54-7
Operating Type	Optical
Detection Level	(~ 0,15db/m)
Power	10V(min) – 18V(max)
Average Consumption	10mA(@12V)
Alarm Consumption	10mA
Parallel warning lamp current	NC Relay
Starting Time	15 sec.
Weight (Include Base / Not)	183 gr / 125 gr
Boyutlar (mm)	Ø110, h42
Dimensions (mm)	ABS Plastic – White
Alarm Indicator LED	Red (Alarm) Blue (Status)
Operating Temperature	-10˚C ~ 55˚C (14F ~ 131F)
Humidity	95% RH
Protection Class	IP30

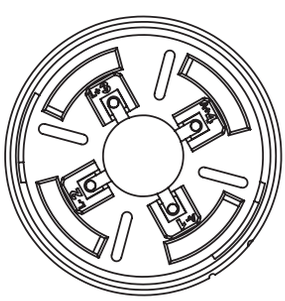
TSD-5150
MULTI DETECTOR (OPTICAL SMOKE AND HEAT) WITH RELAY

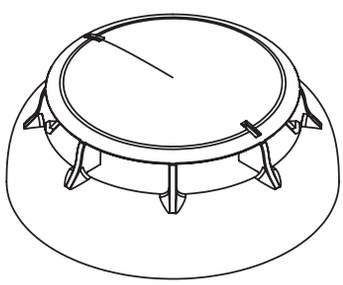
TSD-5150 Optical Smoke + Heat Detector is designed as 12V – NC contact output detector for Intruder alarm panels to detect fires. Fire is detected by optical and heat sensing technology. Detector has a series of advanced algorithms to minimize faulty detections. Smoke chamber can be easily cleaned. It can be directly connected to Intruder alarm panels.

GENERAL SPECIFICATIONS

- Conforms with EN54-7 and EN54-5
- Detects smoke particles in the environment via Light Scatter principle and generates alarm
- Detector also works as A2S class
- 2 LED indicators enabling 360° view
- Two different colors of indication by LEDs to individually display error and alarm conditions (Blue/Red)
- Metallic cage and special protection circuit elements to increase EMC and LVD resistance and to prevent associated faulty alarms
- Special software algorithms to eliminate sudden dust, smoke, etc. external factors that may result in faulty alarms
- Metallic cage preventing entrance of bugs, flies and foreign objects into detector sensing chamber
- Insert type contact structure eliminating non-contact problems
- Easy to clean smoke chamber
- Aesthetic and elegant design fits any environment
- NC Relay Output







TSD-5150 Technical Specifications	
Standard	Conforms EN54-7 and EN54-5
Operating Type	Optical / Heat
Detection Level	0,15 dB/m A2S (Between 55°C-70°C)
Power	10V(min) – 18V(max)
Average Consumption	10mA(@12V)
Alarm Consumption	10mA
Parallel warning lamp current	NC Relay
Starting Time	15 sec.
Weight (Include Base / Not)	183 gr / 125 gr
Dimensions (mm)	Ø110, h42
Body Material and Color	ABS Plastic – White
Indicator LED	Red (Alarm) Blue (Status)
Operating Temperature	-10˚C ~ 70˚C
Humidity	95% RH
Protection Class	IP30

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