

TSGR21

TrueSafe Gas Release Panel

(Family- Fire)

Product Description:

TSGR21 is used for fire detection as well as suppression. Along with fire detection, it is used as a suppression panel to suppress fire using gas release system. Main purpose of this system is to monitor the fire and pressure switch of fire suppression gas system. When fire is detected, panel will activate the solenoid valve to release the suppression gas cylinder. Display shows the fire zone. This system can monitor the pressure of main as well as stand by gas cylinder. Once the main gas cylinder is consumed or has been sent for refilling, the system will select the standby gas cylinder from menu for use. This product has one higher version i.e. TSGR21+



Application:

- Data centers
- Control rooms
- Generator rooms

USPs:

- Networkable up to multiple panels, repeaters & BMS
- Exportable event logs
- Maintenance mode available
- Programmable Main / Standby cylinder output facility

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Product Features:

- Battery backup with built in charging
- 16 X 2 LCD dot matrix display
- Key pad enable/ disable and evacuate facility
- Low battery visual warning with audible tone
- Relay output for actuators
- Provision for remote fire with audio / visual indications
- Compatible to all types of conventional detectors
- Zone disable facility
- Resettable 24 VDC output for 4 wire detectors
- Three 24 V monitored sounder output (fire, cross zone, after gas release)
- Programmable solenoid output with on and off timer
- Gas inhibit and instant release facility
- Manual gas release with or without timer
- Actuator and pressure switch sensing facility
- Modular construction, serviceable
- Auto re-settable fuse
- Battery polarity & battery degraded warning
- Variable solenoid on / off time
- 2 No's of programmable initiating device circuit and 1 no. of releasing agent circuit

TSGR21+ is the higher version of TSGR21 and it comes with below additional features

- RS 485 output for repeater
- RS485 MODBUS RTU output
- Mini USB provision for events export
- Flap switch on the panel for gas release
- Wi-Fi provision for cloud connectivity
- Four digital inputs for other system integration.

Technical



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Specifications

General specifications	
Operating temperature	0°C ~ +50°C
Storage temperature	0°C ~ +60°C
Humidity	5 to 95 % Rh
Color	RAL-7035
Electrical specifications	
Power supply	120 – 240 V AC, 3 A, 60/50 Hz
Charging voltage	27 V DC, ± 0.5 V
Battery backup	Up to 28 Hrs.
Power consumption	Standby 1.5 W, Alarm up to 5 W
Class wiring	Initiating device circuits (zone circuit) all zones are class B wiring
End-of-line resistor	4.7 K, ¼ watt (for solenoid output)
Standby power	6.8 mA (2.4 mA for detectors)
IDC's (zones)	02
Devices per zone	20
Notification appliance circuits- supervised	3 Nos.
Operating nominal voltage	24 VDC
Operating current	0.3 A (max)
End-of-line resistor	4.7 K, ¼ watt
Mechanical specifications	
Weight	Approx. 5.4 kg
Dimensions	365 X 327 X 90 mm (H x W x D)
Construction	18 Gauge (1.22mm) CRCA sheet with powder-coated finish
IP rating	IP50
Display	16x2 dot matrix LCD
Cable entry	18 x ø19 mm knockout in top of the cabinet
LED indications and output	
LED color	<ul style="list-style-type: none">• Fire – Red• Fault – Yellow• System ON - Green
Solenoid output	0.5 A
Output	One fire (C, NO, NC) -2A @ 30 VDC Two configurable relays (fault/prerelease/release) (C, NO, NC)-2A @ 30 VDC
Warranty	One year on manufacturing defects only



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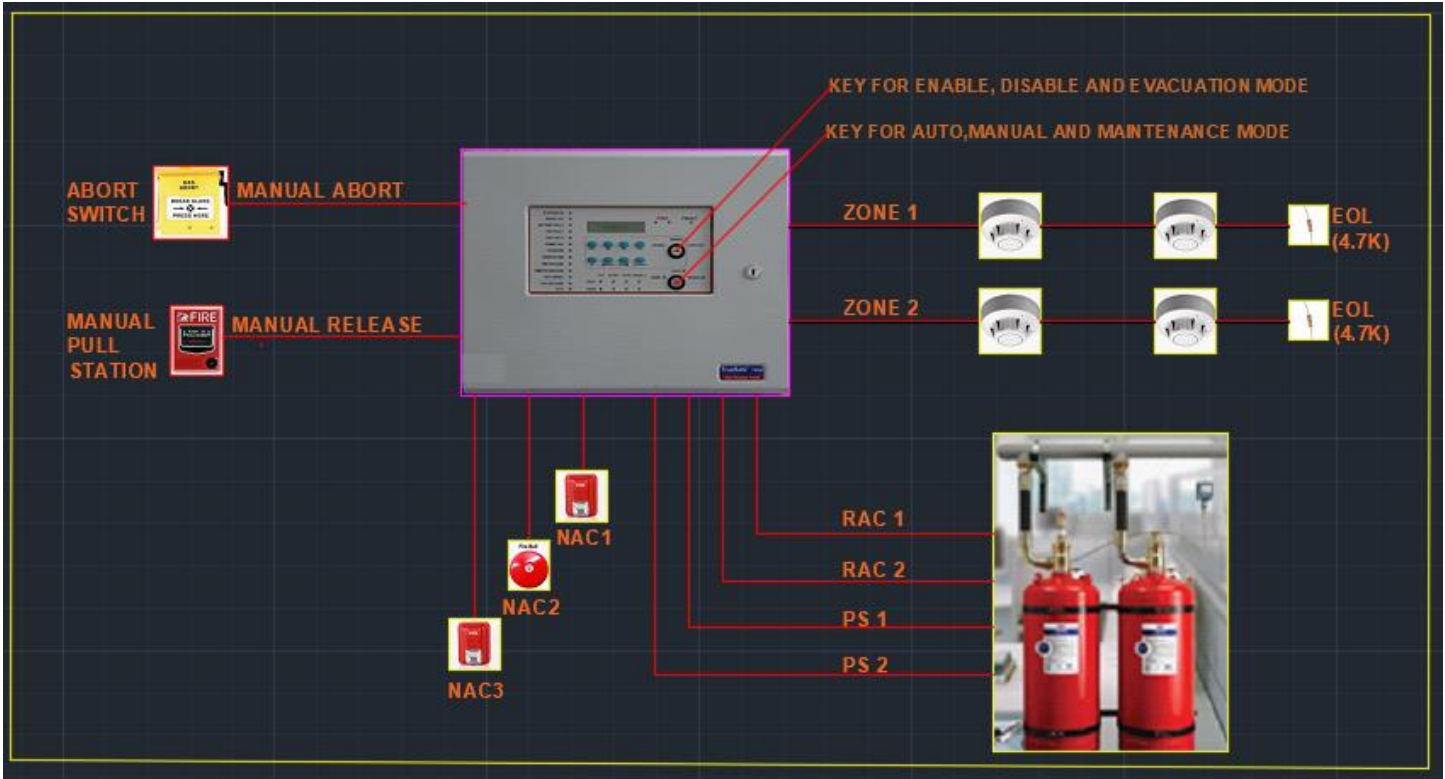
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Wiring Diagram



Models and variants

TSGR21,
TSGR21+

Abbreviations

TSGR21

TS-TrueSafe
GR-Gas release
2- Two input zones
1- One release output

Datasheet version with date (V.2 Oct. 2020)