

**Guidelines and Detailed Technical Specifications:**

**Annexure-I**

**Item No. 1 & 2 Fire Alarm Panel**

Operating Voltage	24 Volts DC
Stand by batteries	24 Volts DC (2X12 Volt DC)
Power Supply	Mains 220 Volt AC, 50 Hz to the internal mains Transformer Input 26 volt from internal mains transformers
Output	24 volt DC ; 12 volt DC
Charging voltage	27.2 volts DC
End of line resistor	4.7 k Ohm, One per sone.
Cable Entry	From top and back
Internal sounders	intermittent buzzer for the fire condition/continuous busser for the fault conditions
Zone Display	Zone Health, Isolate, Short, Open, Fire
LCD Display	2X16 character indicating complete status of zone

**Item No. 3 Conventional Optical Smoke Detector**

**Electrical Specifications**

Operating Voltage Range	8 to 30VDC (Nominal 12/24VDC)
Typical Standby Current	@ 25pC 50µA @ 24VDC (LED no blink)
Maximum Alarm Current (LED On)	80mA @ 24VDC (Limited by panel)
Tested and approved to	EN54 – 7:2000 (Amendment 1) UL/VDS/LPCB Approved

**Mechanical Information**

- Low profile design
- Low current draw
- Backward compatible with Series 100 detector range of bases
- Wide operating voltage 8 to 30VDC
- Bi-colour LED detector status indicator
- Automatic drift compensation
- Programmable sensitivity
- Addressable feature
- Advanced maintenance features via remote hand-held test unit

**Item No. 4 Conventional Multicriteria Smoke Detector****Electrical**

Operating Voltage Range	8 to 30 VDC (Nominal 12/24VDC)
Maximum Standby Current	240µA
Maximum Permissible Alarm Current (LED On)	50mA at 24Vdc (Limited by Panel)

**Environmental**

Operating Temperature Range	-20°C to +60°C
Humidity	-30°C to +70°C for short duration 5 to 95% Relative Humidity (non-condensing)

**Mechanical Information**

- Low profile design
- Low current draw
- Backward compatible with Series 100 detector range of bases
- Wide operating voltage 8 to 30VDC
- Bi-colour LED detector status indicator
- Automatic drift compensation
- Programmable sensitivity
- Addressable feature
- Advanced maintenance features via remote hand-held test unit
- Range of detector bases available
- Tested and approved to  
EN54 – 7:2000 (Amendment 1)  
UL/VDS/LPCB Approved

**Item No.5 Conventional Heat Detector**

- Low standby current
- Two visible LEDs "blink" in standby and provide a 360° field viewing angle
- Wide variety of mounting bases with built-in shorting spring
- Detector head plugs easily into base
- Built-in test switch
- Field sensitivity metering of detector to meet the requirements of NFPA 72
- Built-in tamper-resistant feature
- SEMS screws for easy wiring
- Optional recessed mounting
- Detection Heat
- Heat Sensor: 135°F (57.2°C) fixed; 15°F/minute rate-of-rise
- Standby Current 100 µA max.
- Temperature Range: 32° to 100°F (0° to 38°C)
- Humidity Range 10% to 93% RH, noncondensing

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## Item No. 6 Beam Detector

### **Operational Specifications**

Protection Range

Adjustment Angle

(The optics move independent of the unit)

Sensitivity Levels

16 ft. to 328 ft. (5m to 100m)  
+/- 10 Degrees horizontal & vertical

Level 1 – 25%

Level 2 – 30%

Level 3 – 40%

Level 4 – 50%

Acclimate Level 1 – 30-50%

Acclimate Level 2 – 40-50%

96% or more obscuration blockage

In alignment mode

Improper initial alignment

Self-compensation limit reached

Optical gunsight

Integral signal strength indication

2-digit display

Local red LED and remote alarm

Local yellow LED and remote trouble

Local flashing green LED

Integral Sensitivity Test Filter

Sensitivity filter (Incremental scale on reflector)

Local alarm test switch

Local alarm reset switch

Remote test and reset switch

Fault Condition (Trouble)

Alignment Aid

Alarm Indicator

Trouble Indicator

Normal Indicator

Test/Reset Features

## Item No. 7 Auto Dialer

- GSM based speech and SMS dialer
- Micro-controller based
- 18 key back lit key pad
- 16x4 LCD display
- 2 voice messages
- Separate intrusion message

- Separate fire message
- 15 telephone numbers for each message
- 15 telephone numbers for fire message
- 20 second recording time for each message
- Alarm SMS with alarm type, time and date information
- System status SMS for arm and disarm
- Separate SMS for tamper and wrong code
- Power On SMS when system is powered
- Status SMS are optional sent to first number only
- User editable name and address for alarm SMS
- Dialing to a particular number or all numbers can be aborted by call receiver during call
- Dialing to all numbers can be aborted with master code during call
- Call status and network messages displayed
- Silent dialing for intrusion and fire messages
- Message playback
- Telephone number check
- Telephone number editing facility
- Non-volatile memory
- 12V - 24V DC variable input voltage
- 4 status LEDs - armed, power, dialing and sync
- In-built tamper switch
- GSM signal strength display
- Previous state ( armed or disarmed ) retained when auto-dialer is re-powered
- Fire drill provision with audio reminder



## Item No. 15 & 16    Addressable Fire Alarm Panel

Operating Voltage	230V AC 50 hz (+10%, -15%)
Maximum PSU Rating	4.2A total comprised of 2.5A min @ 25V
Loop load	460mA per loop maximum
Zones	200 max
LED Type Zonal Indicators	20
User Controls	Sound Alarms, Silence/Resound, Mute Buzzer, Accept, System Reset
LED Type Panel Indicators	FIRE, FAULT, Acknowledged, Disablement, Test, Sounder Fault, Delayed Mode, Relays Disabled, Earth Fault, System/CPU Fault, Sounders Disabled, Alarms Silenced, Supply Fault, Power
Serial Interface	2 serial ports for connection with optional modules of Rs-485 and RS-232 cards
Auxiliary Relays	1 fault and 1 Fire
Sounder outputs	2 programmable outputs. Open and short circuit monitoring, 1A maximum per output

## Item No. 17    Repeater Panel

- Connects to RS485 peripheral bus
- Active or Passive options
- Backlit adjustable alphanumeric display
- General status LEDs
- Controls for system reset, accept, mute, silence alarms, and self test (active repeater only)
- "Access Enable" key-switch on active repeater

## Item No. 18    Addressable Optical Smoke Detector

Operating Voltage Range	15 to 32Vdc
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## PIU Technical Specification ARC ELV | 2018

Maximum Standby Current	200 $\mu$ A at 24Vdc (no communications) / 300 $\mu$ A at 24Vdc ( LED blink enabled, once every 5s)
Led Current	3.5mA at 24Vdc
Remote Out put Voltage	22.5Vdc @ 24Vdc
Remote Output Current	10.8mA @ 24Vdc
Temperature Range	-30°C to +70°C †
Humidity	10 to 93% relative humidity (non-condensing)

### Item no. 19 Addressable Multi-criteria Smoke Detector

Operating Voltage Range	15 to 32Vdc
Maximum Standby Current	200 $\mu$ A at 24Vdc (no communications) / 300 $\mu$ A at 24Vdc ( LED blink enabled, once every 5s)
Led Current	3.5mA at 24Vdc
Remote Out put Voltage	22.5Vdc @ 24Vdc
Remote Output Current	10.8mA @ 24Vdc
Temperature Range	-30°C to +70°C †
Humidity	10 to 93% relative humidity (non-condensing)

### Item No. 20 Addressable Heat Detector

Operating Voltage Range	15 to 32Vdc
Maximum Standby Current	200 $\mu$ A at 24Vdc (no communications) / 300 $\mu$ A at 24Vdc ( LED blink enabled, once every 5s)
Led Current	3.5mA at 24Vdc
Remote Out put Voltage	22.5Vdc @ 24Vdc
Remote Output Current	10.8mA @ 24Vdc
Temperature Range	-30°C to +70°C †
Humidity	10 to 93% relative humidity (non-condensing)