

## X Range Refrigerant Gas Detector



### Key Features:

- 24VAC or DC Power Input
- Traffic Light Indicator Display Changes Color Dependent On Gas Levels
- Modern & Compact Design
- Plug & Play Installation
- Standalone Detector or Used With An S&S Middle East Controller
- Modbus Communications
- Alarm Relay Dry Contact
- In-Built Audible Alarm

### Product Overview:

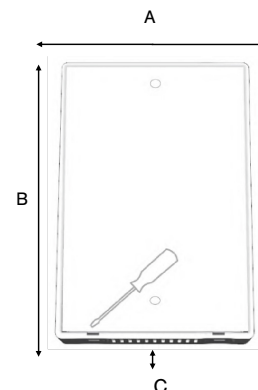
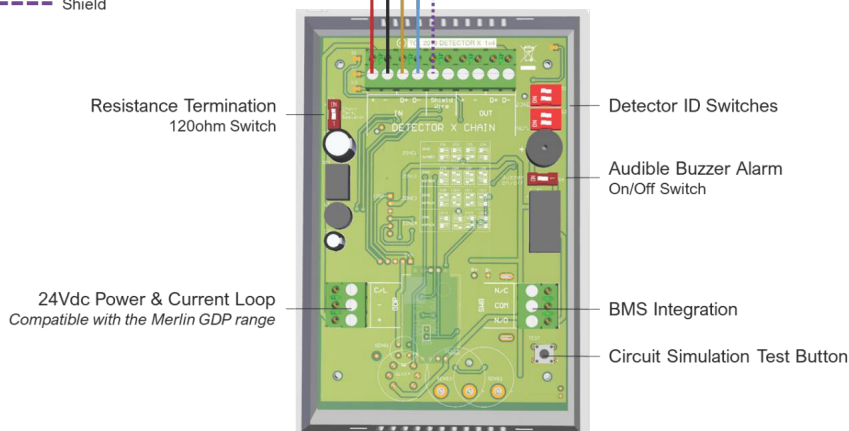
The TFT range of S&S Middle East detectors work in combination with the S&S Middle East range of Gas Detection panels. The S&S Refrigerant X range features an NDIR sensor for industrial and commercial indoor applications. Compact, modern, digital design makes the units aesthetically pleasing and easy to install.

### Refrigerant Sensor Specification:

|                           |                              |
|---------------------------|------------------------------|
| Diffusion Type:           | NDIR Dual beam               |
| Technology Response:      | t90<30s                      |
| Warm Up Time:             | ~1 minute @77°C              |
| Accuracy:                 | 15% of applied concentration |
| Lifespan:                 | 10 Years MTBF                |
| Resolution:               | 50ppm                        |
| Long Term Zero Stability: | +3% of FS range/year         |

- Power [+]
- Negative [-]
- Bus Data [D+]
- Bus Data [D-]
- Shield

24Vdc Power Input/Output & Data  
Compatible with the Merlin GDP-X range.



- A. 95mm
- B. 140mm
- C. 30mm

## X Range Refrigerant Gas Detector Technical Specifications

### General

|                   |                                        |
|-------------------|----------------------------------------|
| Model:            | Refrigerant X Range                    |
| Target Gases:     | See table below                        |
| Size: (H x W x D) | 5.95 x 4.37 x 1.97"                    |
| Housing Material: | ABS Polylac - PA765                    |
| Mounting:         | 1FT A.F.F. - Indoor Use - Wall Mounted |
| Weight            | 0.3kg                                  |

### User Interface

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Display            | 1.8" TFT                                                 |
| Screen Brightness: | Non-Adjustable                                           |
| Visual Indicators: | TFT visual. Green: Normal; Yellow: Pre-Alarm; Red: Alarm |
| Audible Alarm:     | >95dB @ 1m conditions                                    |
| Buttons:           | None                                                     |
| Language:          | English                                                  |

### Power Supply

|                    |                            |
|--------------------|----------------------------|
| Power Consumption: | 90mA Max @ 24 VDC          |
| DC Power:          | 12-32 VDC - Nominal 24 VDC |
| Internal Fuse:     | None                       |

### Equipment

|                       |     |
|-----------------------|-----|
| Overvoltage Category: | III |
| Pollution Degree:     | 3   |

### I/O

|        |                                                                                 |
|--------|---------------------------------------------------------------------------------|
| Relay: | Volt Free (Normally Closed / Common / Normally Open) 1x 30vdc 2A (Non-Latching) |
|--------|---------------------------------------------------------------------------------|

### Environmental

|                       |                                                      |
|-----------------------|------------------------------------------------------|
| Operating:            | -10 ~ 50°C / 14 ~ 122°F 30 ~ 80% RH (non-condensing) |
| Storage               | -25 ~ 50°C / -13~122°F up to 95% RH (non-condensing) |
| Atmospheric Pressure: | 70-110kPa                                            |
| Altitude Rating:      | <2900M                                               |

### Wiring

|         |                                                          |
|---------|----------------------------------------------------------|
| Typical | #18-24AWG Power Pair; #18-24AWG Data Pair-Tinned copper. |
|---------|----------------------------------------------------------|

### Approvals

|                                                     |                                                   |
|-----------------------------------------------------|---------------------------------------------------|
| Electromagnetic Compatibility and Electrical Safety | BS/IEC/EN 61010-1 EMC EN 50270                    |
| Sensor Agency Approvals                             | UL Recognized Component for ANSI/UL-2034, UL-2075 |

### Other

|               |                  |
|---------------|------------------|
| Communication | RS485 MODBUS RTU |
|---------------|------------------|

### Detectable Gases & Alarm Levels

|            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| Gas Type:  | R422a | R422d | R424a | R427a | R434a | R438a | R442a | R448a | R449a | R449a | R450a | R452a | R452b | R453a | R454a | R454b | R454c | R455a | R507 | R513a | R514a | R515a | R515b |
| Sensor:    | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | LITE  | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO   | PRO  | PRO   | PRO   | PRO   | PRO   |
| Pre Alarm: | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 175   | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 75    | 75   | 75    | 75    | 75    | 75    |
| Alarm:     | 1000  | 1000  | 990   | 1000  | 1000  | 990   | 1000  | 860   | 800   | 800   | 880   | 790   | 870   | 1000  | 690   | 850   | 620   | 650   | 1000 | 650   | 320   | 810   | 810   |

|            |         |         |         |         |         |      |      |       |       |       |        |      |      |      |       |       |       |       |       |       |       |       |
|------------|---------|---------|---------|---------|---------|------|------|-------|-------|-------|--------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Gas Type:  | R1233zd | R1234yf | R1234yf | R1234ze | R1234ze | R123 | R125 | R134a | R134a | R143a | R227ea | R22  | R32  | R32  | R404a | R404a | R407c | R407c | R407f | R410a | R410a | R417a |
| Sensor:    | PRO     | PRO     | LITE    | PRO     | LITE    | PRO  | PRO  | PRO   | PRO   | PRO   | PRO    | PRO  | PRO  | LITE | PRO   | LITE  | PRO   | LITE  | PRO   | PRO   | LITE  | PRO   |
| Pre Alarm: | 75      | 75      | 175     | 75      | 175     | 75   | 75   | 75    | 75    | 75    | 75     | 75   | 75   | 350  | 75    | 175   | 75    | 175   | 75    | 75    | 350   | 75    |
| Alarm:     | 1000    | 1000    | 1000    | 1000    | 1000    | 1000 | 1000 | 1000  | 1000  | 1000  | 1000   | 1000 | 1000 | 1000 | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  |