



## Product Overview:

The MGFS is a manual fan switch designed to be used with the Canadian Gas Safety range of gas detection systems.

The MGFS provides two additional normally open, manually operated contacts to wire in parallel with any of the CGS systems' internal fan relays.

It is most commonly used with the CGS MerlinGuard Refrigerant Detection Control panel to comply with ASHRAE 15 requirements for manual fan activation switch when monitoring for A2L type refrigerants.

For detailed wiring schematic, please see information on the MerlinGuard A2L system.

## Main Product Specs

|                               |                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of Product              | Gas Detection Accessory                                                                                                                                                      |
| Product or Component Type     | Selector switch                                                                                                                                                              |
| Device short name             | MGFS MerlinGuard Fan Switch                                                                                                                                                  |
| Bezel material                | Chromium plated metal                                                                                                                                                        |
| Fixing collar material        | Zamak                                                                                                                                                                        |
| Mounting diameter             | 0.9 in (22.5 mm)                                                                                                                                                             |
| Sale per indivisible quantity | 1                                                                                                                                                                            |
| Head type                     | Standard                                                                                                                                                                     |
| Shape of signaling unit head  | Round                                                                                                                                                                        |
| Type of operator              | stay put                                                                                                                                                                     |
| Operator profile              | Black standard handle                                                                                                                                                        |
| Operator position information | 2 positions +/- 90°                                                                                                                                                          |
| Contacts type and composition | 1 NO & 1NC                                                                                                                                                                   |
| Connections - terminals       | Screw clamp terminals, $\leq 2 \times 1.5 \text{ mm}^2$ with cable end IEC 60947-1<br>Screw clamp terminals, $\geq 1 \times 0.22 \text{ mm}^2$ without cable end IEC 60947-1 |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Height (Switch Only)                        | 1.9 in (47 mm)                                                                                                                                                                                                                                                                                                                                                                        |
| Width (Switch Only)                         | 1.2 in (30 mm)                                                                                                                                                                                                                                                                                                                                                                        |
| Depth (Switch Only)                         | 2.7 in (68 mm)                                                                                                                                                                                                                                                                                                                                                                        |
| Net Weight (Switch Only)                    | 0.231 lb(US) (0.105 kg)                                                                                                                                                                                                                                                                                                                                                               |
| Resistance to high pressure washer          | 1015.3 psi (7000000 Pa) 131.0000000000 °F (55 °C) 0.1 m                                                                                                                                                                                                                                                                                                                               |
| Contacts usage                              | Standard contacts                                                                                                                                                                                                                                                                                                                                                                     |
| Torque value                                | 1.24 lbf.in (0.14 N.m) NO changing electrical state                                                                                                                                                                                                                                                                                                                                   |
| Mechanical durability                       | 1000000 cycles                                                                                                                                                                                                                                                                                                                                                                        |
| Tightening torque                           | 7.08...10.6 lbf.in (0.8...1.2 N.m) IEC 60947-1                                                                                                                                                                                                                                                                                                                                        |
| Shape of screw head                         | Cross Philips no 1<br>Cross pozidriv No 1<br>Slotted flat Ø 4 mm<br>Slotted flat Ø 5.5 mm                                                                                                                                                                                                                                                                                             |
| Contacts material                           | Silver alloy (Ag/Ni)                                                                                                                                                                                                                                                                                                                                                                  |
| Short-circuit protection                    | 10 A cartridge fuse gG IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                  |
| [Ith] conventional free air thermal current | 10 A IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                    |
| [Ui] rated insulation voltage               | 600 V 3)IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                   |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                      |
| [Ie] rated operational current              | 3 A 240 V, AC-15, A600 IEC 60947-5-1<br>6 A 120 V, AC-15, A600 IEC 60947-5-1<br>0.1 A 600 V, DC-13, Q600 IEC 60947-5-1<br>0.27 A 250 V, DC-13, Q600 IEC 60947-5-1<br>0.55 A 125 V, DC-13, Q600 IEC 60947-5-1<br>1.2 A 600 V, AC-15, A600 IEC 60947-5-1                                                                                                                                |
| Electrical durability                       | 1000000 cycles, AC-15, 2 A 230 V 3600 cyc/h 0.5 EN 60947-5-1 appendix C<br>1000000 cycles, AC-15, 3 A 120 V 3600 cyc/h 0.5 EN 60947-5-1 appendix C<br>1000000 cycles, AC-15, 4 A 24 V 3600 cyc/h 0.5 EN 60947-5-1 appendix C<br>1000000 cycles, DC-13, 0.2 A 110 V 3600 cyc/h 0.5 EN 60947-5-1 appendix C<br>1000000 cycles, DC-13, 0.5 A 24 V 3600 cyc/h 0.5 EN 60947-5-1 appendix C |
| Electrical reliability                      | $\Lambda < 10\exp(-6)$ 5 V 1 mA in clean environment IEC 60947-5-4<br>$\Lambda < 10\exp(-8)$ 17 V 5 mA in clean environment IEC 60947-5-4                                                                                                                                                                                                                                             |