

# HYGIEMAG – Magnetic Non Contact – Type SMR-F



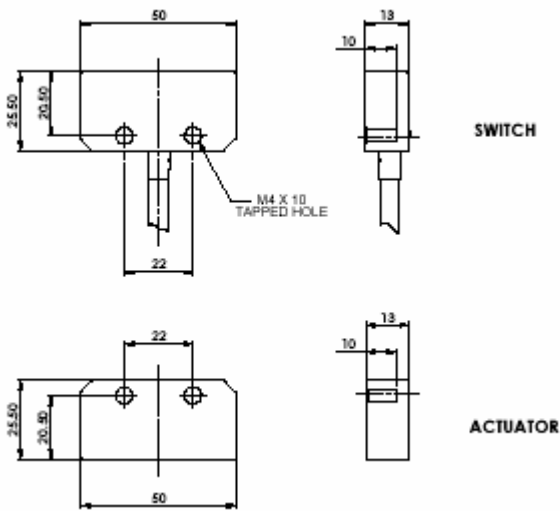
Magnetic Actuation - Power series Heavy Duty 230V.ac 1.0A. / 24V.dc 1.0A.

Switching Tolerance up to 14mm IP69K No Food Trap Housing – Rear Mounting Holes

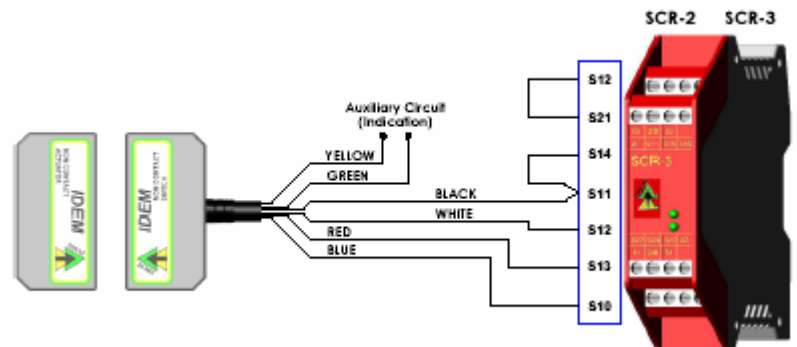
Temperatures up to 105C. Stainless Steel 316 housing



Specifically designed for Food Processing applications – Stainless Steel 316 Mirror finish  
 Suitable for CIP and SIP cleaning - mounting holes are at the rear – no food traps  
 Universal housing - 22mm fixing hole centre - 50mm wide body  
 Can be high pressure hosed at high temperature – IP69K  
 Wide 14mm sensing high tolerance to misalignment.  
 Up to: PLe ISO 13849-1 SIL 3 EN 62061 Cat.4 EN 954-1  
 2NC 1NO circuits



## Application example – magnetic switches

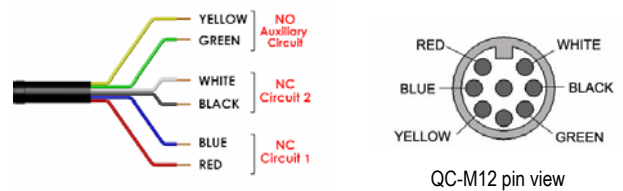


One switch connected to an SCR-2 or SCR-3 to give Dual Channel Guard monitoring but with auto start and contactor feedback check.

Standards EN1088 IEC 947-5-3 EN 60204-1  
 ISO 13849-1 EN 954-1 UL508

### Safety Classification and Reliability Data:

|                                 |  |
|---------------------------------|--|
| Mechanical Reliability B10d     | > 3.3 x 10 <sup>6</sup> operations at 100mA load |
| EN 954-1                        | up to Category 4 with Safety Relay               |
| ISO 13849-1                     | up to PLe depending upon system architecture     |
| EN 62061                        | up to SIL3 depending upon system architecture    |
| Safety Data - Annual Usage      | 8 cycles per hour / 24 hours per day / 365 days  |
| PFHd                            | > 2.52 x 10 <sup>-8</sup>                        |
| Proof Test Interval (Life)      | 47 years   |
| MTTFd                           | 470 years  |
| Heavy Duty Safety Channel 1 NC  | Voltage free : 250V.ac 2.0 A Max. Rating         |
| Safety Channel 2 NC             | Voltage free : 250V.ac 2.0 A Max. Rating         |
| Safety Channel 3 NO             | Voltage free : 24V.dc 0.2 A Max. Rating          |
| Fuse                            | Internal 2.0 A. (F) External 1.6A (F) (User)     |
| Medium Duty Safety Channel 1 NC | Voltage free : 250V.ac 1.0 A Max. Rating         |
| Safety Channel 2 NC             | Voltage free : 250V.ac 1.0 A Max. Rating         |
| Safety Channel 3 NO             | Voltage free : 24V.dc 0.2 A Max. Rating          |
| Fuse                            | Internal 1.0 A. (F) External 0.8A (F) (User)     |
| Contact release time            | <2ms   |
| Initial contact resistance      | <500 milliohm                                    |
| Minimum switched current        | 10V. dc 1mA                                      |
| Delectric withstand             | 250V.ac  |
| Insulation Resistance           | 100 Mohms  |
| Recommended setting gap         | 5mm  |
| Switching Distance:             | Sao 12mm Close                                   |
| (Target to target)              | Sar 22mm Open                                    |
| Tolerance to misalignment       | 5mm in any direction from 5mm setting gap        |
| Switching frequency             | 1.0 Hz maximum                                   |
| Approach speed                  | 200mm/m. to 1000mm/s.                            |
| Body Material                   | Stainless Steel 316 Mirror finish                |
| Temperature Range               | -25 / 105C.                                      |
| Enclosure Protection            | IP69K IP67                                       |
| Shock Resistance                | IEC 68-2-27 11ms 30g                             |
| Vibration Resistance            | IEC 68-2-6 10-55 Hz. 1mm                         |
| Cable Type                      | PVC 6 or 8 core 6mm O.D.                         |
| Mounting Bolts                  | 2 x M4 Tightening torque 1.0 Nm                  |
| Mounting Position               | Any  |



| Sales Number | Type           | Cable Length | Circuits |
|--------------|----------------|--------------|----------|
| 137009       | Hygiemag SMR-F | 2M           | 2NC      |
| 137010       | Hygiemag SMR-F | 5M           | 2NC      |
| 137011       | Hygiemag SMR-F | 10M          | 2NC      |
| 137012       | Hygiemag SMR-F | QC-M12       | 2NC      |
| 137013       | Hygiemag SMR-F | 2M           | 2NC 1NO  |
| 137014       | Hygiemag SMR-F | 5M           | 2NC 1NO  |
| 137015       | Hygiemag SMR-F | 10M          | 2NC 1NO  |
| 137016       | Hygiemag SMR-F | QC-M12       | 2NC 1NO  |
| 137017       | Hygiemag SMR-F | 2M           | 1NC      |
| 137018       | Hygiemag SMR-F | 5M           | 1NC      |
| 137019       | Hygiemag SMR-F | 10M          | 1NC      |
| 137020       | Hygiemag SMR-F | QC-M12       | 1NC      |
| 137021       | Hygiemag SMR-F | 2M           | 1NC 1NO  |
| 137022       | Hygiemag SMR-F | 5M           | 1NC 1NO  |
| 137023       | Hygiemag SMR-F | 10M          | 1NC 1NO  |
| 137024       | Hygiemag SMR-F | QC-M12       | 1NC 1NO  |