

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

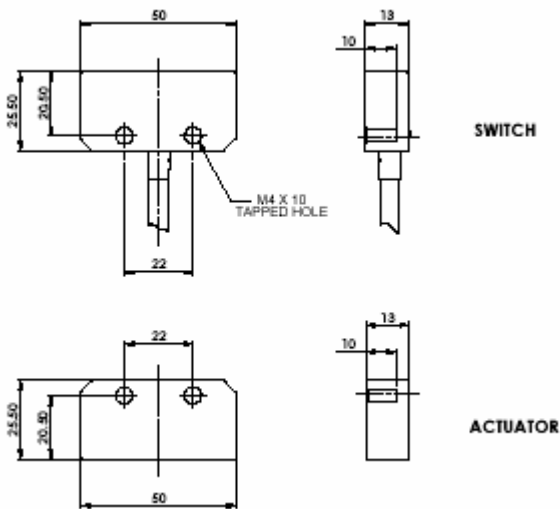
Universal housing - 22mm fixing hole centre - 50mm wide body

Can be high pressure hosed at high temperature – IP69K

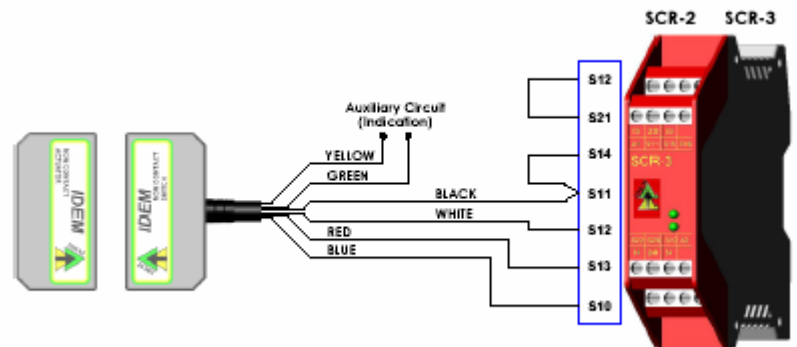
Wide 14mm sensing high tolerance to misalignment.

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:

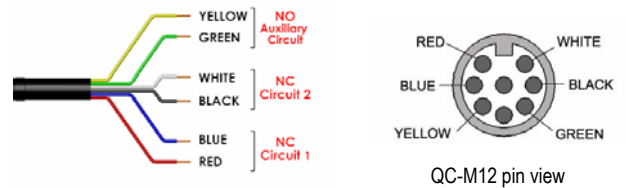
Mechanical Reliability B10d > 3.3 x 10⁶ operations at 100mA load
EN 954-1 up to Category 4 with Safety Relay
ISO 13849-1 up to PLe depending upon system architecture
EN 62061 up to SIL3 depending upon system architecture
Safety Data - Annual Usage 8 cycles per hour / 24 hours per day / 365 days
PFHd > 2.52 x 10⁻⁸

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
Dielectric withstand 250V.ac
Insulation Resistance 100 Mohms
Recommended setting gap 5mm
Switching Distance: Sao 12mm Close Sar 22mm Open
(Target to target)
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 |

HYGIEMAG – Magnetic Non Contact – Type CMR-F



Magnetic Actuation - Power series Heavy Duty 230V.ac 2.0A. / 24V.dc 2.0A. IP69K

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

Industry standard fixings – can be high pressure hosed at high temperature – IP69K

Wide 14mm sensing high tolerance to misalignment.

High switching capability – up to 2A.

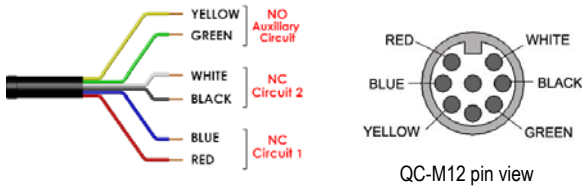
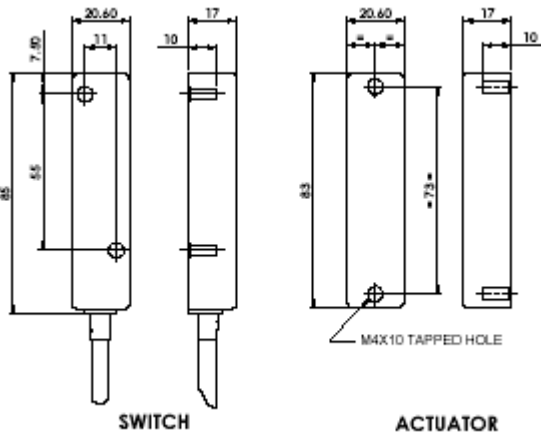
Up to: PLe ISO 13849-1 SIL 3 EN 62061 Cat.4 EN 954-1



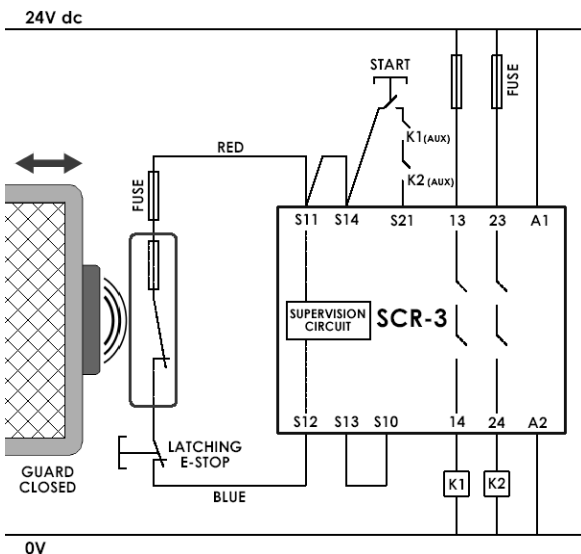
Standards EN1088 IEC 947-5-3 EN 60204-1
ISO 13849-1 EN 954-1 UL508

Safety Classification and Reliability Data:

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- 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 10⁻⁸
- 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
- Dielectric 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



Application example – magnetic switches



One switch connected to an SCR-2 or SCR-3 to give Single Channel Guard monitoring but with monitored manual start and contactor feedback check. Allows minimal wiring but higher current switching to K1 and K2 contactors.

| Sales Number | Type | Cable Length | Circuits | NC Duty |
|--------------|----------------|--------------|----------|-----------|
| 135017 | Hygiemag CMR-F | 2M | 2NC | Medium 1A |
| 135018 | Hygiemag CMR-F | 5M | 2NC | Medium 1A |
| 135019 | Hygiemag CMR-F | 10M | 2NC | Medium 1A |
| 135020 | Hygiemag CMR-F | QC-M12 | 2NC | Medium 1A |
| 135021 | Hygiemag CMR-F | 2M | 2NC 1NO | Medium 1A |
| 135022 | Hygiemag CMR-F | 5M | 2NC 1NO | Medium 1A |
| 135023 | Hygiemag CMR-F | 10M | 2NC 1NO | Medium 1A |
| 135024 | Hygiemag CMR-F | QC-M12 | 2NC 1NO | Medium 1A |
| 135025 | Hygiemag CMR-F | 2M | 1NC | Heavy 2A |
| 135026 | Hygiemag CMR-F | 5M | 1NC | Heavy 2A |
| 135027 | Hygiemag CMR-F | 10M | 1NC | Heavy 2A |
| 135028 | Hygiemag CMR-F | QC-M12 | 1NC | Heavy 2A |
| 135029 | Hygiemag CMR-F | 2M | 1NC 1NO | Heavy 2A |
| 135030 | Hygiemag CMR-F | 5M | 1NC 1NO | Heavy 2A |
| 135031 | Hygiemag CMR-F | 10M | 1NC 1NO | Heavy 2A |
| 135032 | Hygiemag CMR-F | QC-M12 | 1NC 1NO | Heavy 2A |