

# HYGIEMAG - Magnetic Non Contact - Type: CMR

Magnetic Actuation - Power series

Switching Tolerance up to 12mm



Heavy Duty 230V.ac / 24V.dc 2.0A.

IP69K

Specified to 105C but designed to work up to 125C.

Medium Duty version 1.0A.

Will operate with most Safety Relays

Specifically designed for Food Processing applications - Stainless Steel 316 Mirror polished finish (Ra4).

Suitable for CIP SIP cleaning - Food Splash Zones EHEDG guidelines

Slim 20mm wide housing - can be fitted into narrow channels

Wide 12mm sensing high tolerance to misalignment

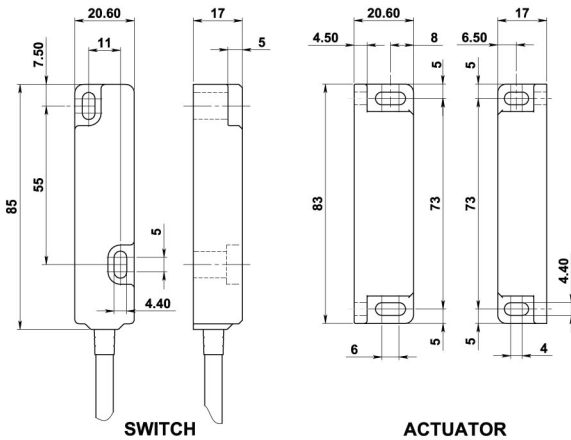
High switching capability - up to 2A.

Up to: PLe ISO 13849-1 SIL 3 EN 62061 Cat.4 EN954-1

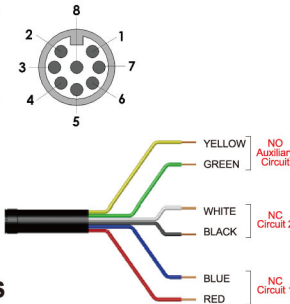
Stainless Steel Housing



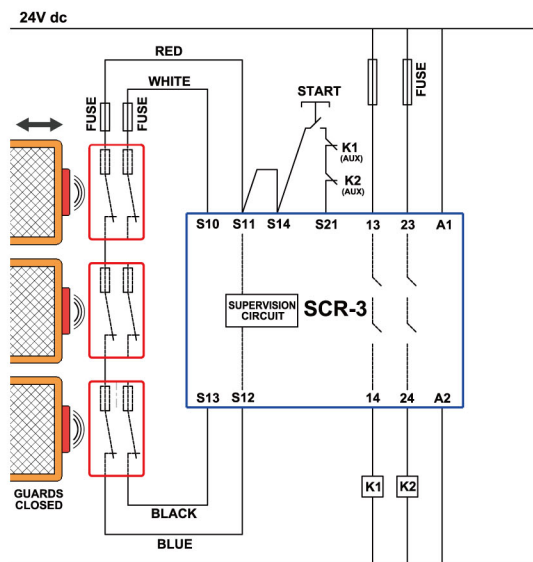
Quick Connect M12 versions fitted with 250mm (10") cable



Quick Connect (QC)	Standard Lead Colour	Circuit (Actuator Present)
M12 8 Way Male Plug Pin view from switch		
4	Yellow	NO
6	Green	NO
7	Black	NC2
1	White	NC2
2	Red	NC1
3	Blue	NC1



## Connection example – magnetic switches



OV

Three switches connected in series to an SCR-2 or SCR-3 to give Dual Channel Guard monitoring but with monitored manual start and contactor feedback check.

For all IDEM switches the NC circuits are closed when the guard is closed and the actuator present.

- Standards EN1088 IEC 60947-5-3 EN 60204-1 ISO 13849-1 EN62061 EN 954-1 UL508
- Safety Classification and Reliability Data:
- Mechanical Reliability B10d: 3.3 x 10<sup>6</sup> operations at 100mA load up to Category 4 with Safety Relay
  - EN 954-1: up to PLe depending upon system architecture
  - ISO 13849-1: up to SIL3 depending upon system architecture
  - EN 62061: 8 cycles per hour / 24 hours per day / 365 days
  - Safety Data - Annual Usage: 2.52 x 10<sup>-8</sup>
  - PFHd: 47 years
  - Proof Test Interval (Life): 470 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)
  - 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 10mm 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 polished finish (Ra4)
  - Temperature Range: -25 +105C.
  - Enclosure Protection: IP69K (NEMA PW12) IP67 (NEMA 6)
  - Shock Resistance: IEC 68-2-27 11ms 30g
  - Vibration Resistance: IEC 68-2-6 10-55 Hz. 1mm
  - Cable Type: PVC 6 core 6mm O.D.
  - Mounting Bolts: 2 x M4 Tightening torque 1.0 Nm
  - Mounting Position: Any

Sales Number	Type	Cable Length	Circuits	NC Duty
138017	Hygiemag CMR	2M	2NC	Medium 1A
138018	Hygiemag CMR	5M	2NC	Medium 1A
138019	Hygiemag CMR	10M	2NC	Medium 1A
138020	Hygiemag CMR	QC-M12	2NC	Medium 1A
138021	Hygiemag CMR	2M	2NC 1NO	Medium 1A
138022	Hygiemag CMR	5M	2NC 1NO	Medium 1A
138023	Hygiemag CMR	10M	2NC 1NO	Medium 1A
138024	Hygiemag CMR	QC-M12	2NC 1NO	Medium 1A
138025	Hygiemag CMR	2M	1NC	Heavy 2A
138026	Hygiemag CMR	5M	1NC	Heavy 2A
138027	Hygiemag CMR	10M	1NC	Heavy 2A
138028	Hygiemag CMR	QC-M12	1NC	Heavy 2A
138029	Hygiemag CMR	2M	1NC 1NO	Heavy 2A
138030	Hygiemag CMR	5M	1NC 1NO	Heavy 2A
138031	Hygiemag CMR	10M	1NC 1NO	Heavy 2A
138032	Hygiemag CMR	QC-M12	1NC 1NO	Heavy 2A

140101	Female QC Lead	M12 Female 5m. 8 way
140102	Female QC Lead	M12 Female 10m. 8 way