

# HYGIEMAG - Magnetic Non Contact Type: CMR-F

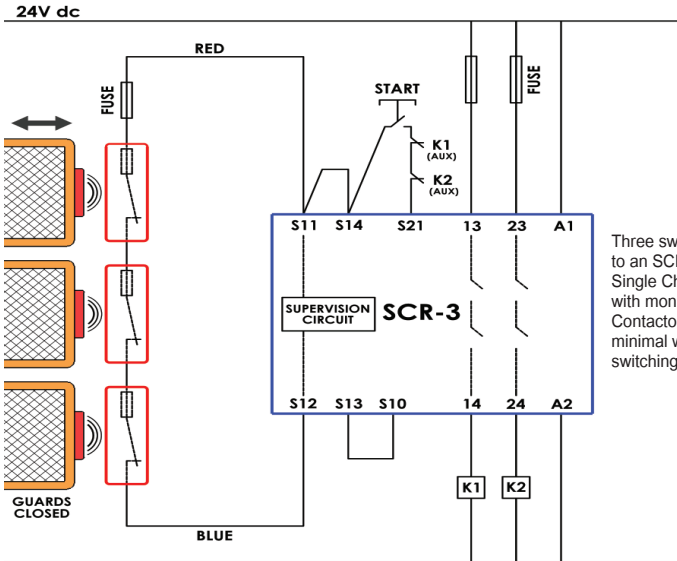
## FEATURES:

- Specifically designed for Food Processing applications -
- Stainless Steel 316 Mirror Polished finish (Ra4)
- Suitable for CIP SIP cleaning, mounting holes are at the rear - no food traps
- Suitable for Food Contact Zones - EHEDG Guidelines
- Industry standard fixings - can be high pressure hosed at high temperature
- Wide sensing at 12mm with high tolerance to misalignment
- Can be high pressure hosed at high temperature
- High switching capability - up to 2.0A
- Up to: PLe ISO13849-1



- Stainless Steel 316 Housing mirror polished (Ra4)
- Magnetic Actuation - Power Series 230Vac/24Vdc 2.0A
- Switching Tolerance up to 12mm
- No Food Traps - Rear Mounting Holes
- Will operate with most Safety Relays

## CONNECTION EXAMPLE: Magnetic Switches



Three switches connected in series to an SCR-2 or SCR-3 to give Single Channel guard monitoring with monitored Manual Start and Contactor Feedback check. Allows minimal wiring but higher current switching to K1 and K2 contactors.

IP69K

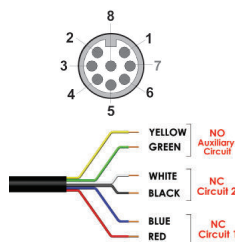


Quick Connect M12 versions fitted with 250mm (10") cable



OV

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

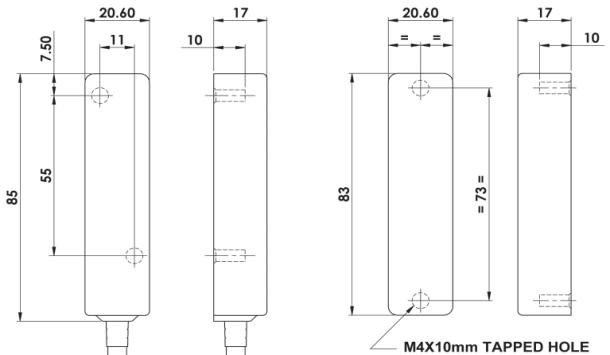


Standards: ISO14119 EN60947-5-3  
EN60204-1 ISO13849-1 EN62061 UL508

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>8</sup> operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
	MTTFd 470 years
Heavy Duty	Safety Channel 1 NC Voltage Free: 250Vac 2.0A Max. Rating
	Safety Channel 2 NC Voltage Free: 250Vac 2.0A Max. Rating
	Safety Channel 3 NO Voltage Free: 24Vdc 0.2A Max. Rating
	Fuse Internal 2.0A (F) External 1.6A (F) (User)
Medium Duty	Safety Channel 1 NC Voltage Free: 250Vac 1.0A Max. Rating
	Safety Channel 2 NC Voltage Free: 250Vac 1.0A Max. Rating
	Safety Channel 3 NO Voltage Free: 24Vdc 0.2A Max. Rating
	Fuse Internal 1.0A (F) External 0.8A (F) (User)
	Contact Release Time <2ms
	Initial Contact Resistance <500 milliohm
	Minimum Switched Current 10Vdc 1mA
	Dielectric Withstand 250Vac
	Insulation Resistance 100 Mohms
	Recommended Setting Gap 5mm
	Switching Distance Sao 8mm Close
	(Target to Target) Sar 22mm Open
	Tolerance to Misalignment 5mm in any direction from 5mm setting gap
	Switching Frequency 1.0Hz maximum
	Approach Speed 200mm/min to 1000mm/sec
	Body Material Stainless Steel 316 mirror polished finish to Ra4
	Operating Temperature -25C +105C (CIP SIP cleaning)
	Enclosure Protection IP69K (NEMA PW12) IP67 (NEMA 6)
	Shock Resistance IEC68-2-27 11ms 30g
	Vibration Resistance IEC68-2-6 10-55Hz 1mm
	Cable Type PVC 6 core 6mm OD Conductors 0.25mm <sup>2</sup>
	Mounting Bolts 2xM4 Tightening torque 1.0Nm
	Mounting Position Any

## DIMENSIONS:



SWITCH

ACTUATOR

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



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

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