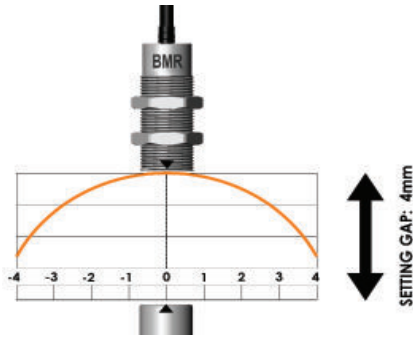


# HYGIEMAG - Magnetic Non Contact Type: BMR (M18)

## FEATURES:

M18 cylindrical fitting suitable for all industry applications.  
 Easy to install - M18 threaded body - easy to set  
 Typical switching distance 8mm  
 Suitable for harsh environments of Food Processing and Packaging  
 Up to: PLe ISO13849-1  
 2NC 1NO circuits  
 Quick Connect versions available

## SETTING GAP:

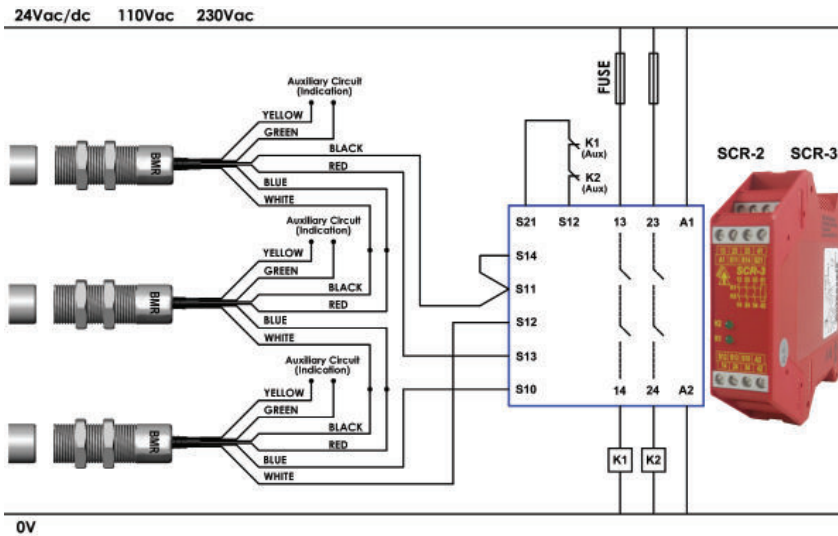


**Stainless Steel 316 Housing**  
**Magnetic Actuation**  
**Typical Switching Distance 8mm**  
**Will operate with most Safety Relays**  
**Quick Connect versions available**



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

## CONNECTION EXAMPLE: Magnetic Switches



Three switches connected in series to an SCR-2 or SCR-3 to give Dual Channel guard monitoring with Automatic Start and Contactor Feedback Check.

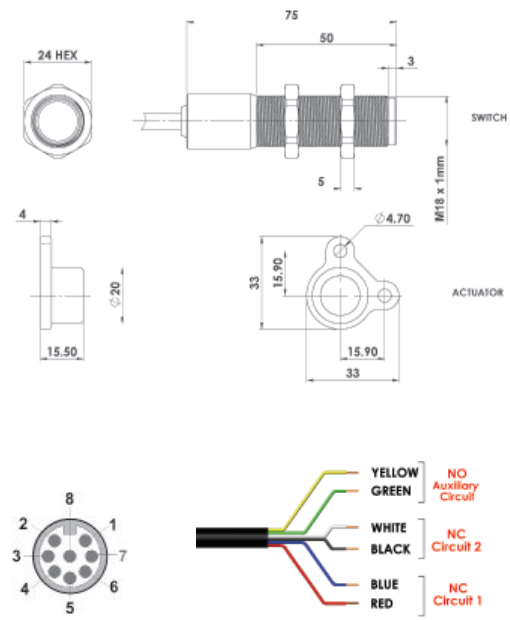
**Standards:** ISO14119 EN60947-5-3  
 EN60204-1 ISO13849-1 EN62061 UL508

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>6</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
Safety Channel 1 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 2 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
Minimum Switched Current	10Vdc 1mA
Dielectric Withstand	250Vac
Insulation Resistance	100 Mohms
Recommended Setting Gap	5mm
Switching Distance	Sao 5mm Close
(Target to Target)	Sar 20mm Open
Tolerance to Misalignment	4mm in any direction from 4mm setting gap
Switching Frequency	1.0Hz maximum
Approach Speed	200mm/min to 1000mm/sec
Body Material	Stainless Steel 316
Operating Temperature	-25C +105C (CIP SIP cleaning)
Enclosure Protection	IP69K IP67
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 Position	Any

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

## DIMENSIONS:



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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
416009	Hygiemag BMR S/Steel 316	2M	2NC
416010	Hygiemag BMR S/Steel 316	5M	2NC
416011	Hygiemag BMR S/Steel 316	10M	2NC
416012	Hygiemag BMR S/Steel 316	QC-M12	2NC
416013	Hygiemag BMR S/Steel 316	2M	2NC 1NO
416014	Hygiemag BMR S/Steel 316	5M	2NC 1NO
416015	Hygiemag BMR S/Steel 316	10M	2NC 1NO
416016	Hygiemag BMR S/Steel 316	QC-M12	2NC 1NO

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

# HYGIEMAG - Magnetic Non Contact Type: CMR-F

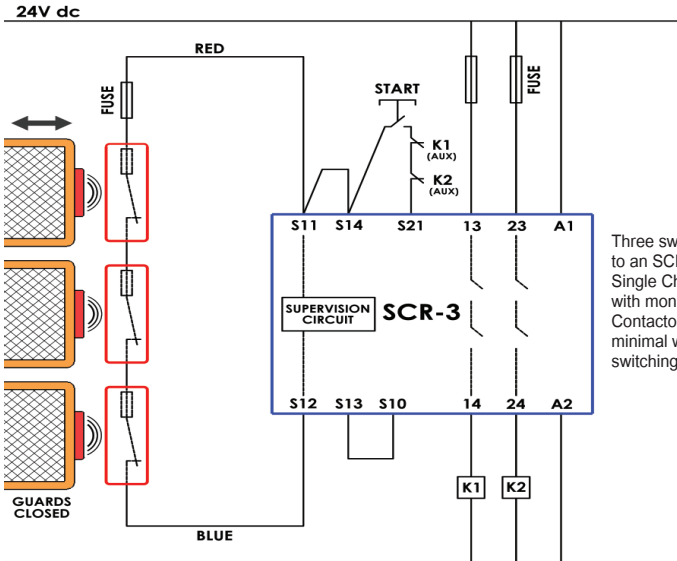
## FEATURES:

- 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

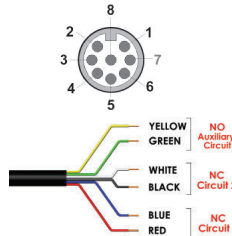


Quick Connect M12 versions fitted with 250mm (10") cable



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

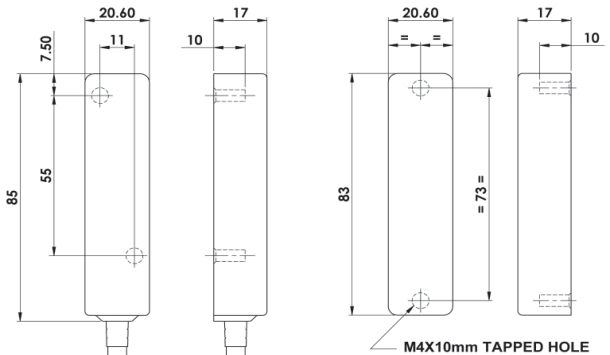


Standards: ISO14119 EN60947-5-3  
EN60204-1 ISO13849-1 EN62061 UL508

### 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

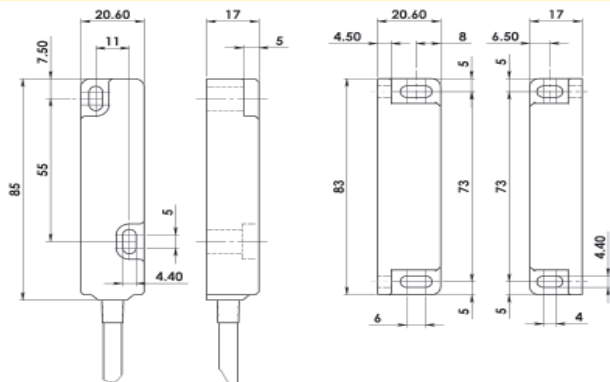
For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed and the actuator is present.

# HYGIEMAG - Magnetic Non Contact Type: CMR

## FEATURES:

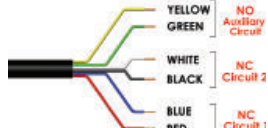
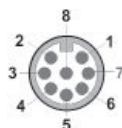
- Specifically designed for Food Processing applications -
  - Stainless Steel 316 Mirror Polished finish (Ra4)
- Suitable for CIP and SIP cleaning -
  - Food Splash Zones EHEDG guidelines
- Slim 20mm wide housing - can be fitted into narrow channels easily
- Wide sensing at 12mm with high tolerance to misalignment
- Can be high pressure hosed at high temperature
- High switching capability - up to 2.0A
- Up to: PLe ISO13849-1
- Quick Connect versions available

## DIMENSIONS:



SWITCH

ACTUATOR



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>6</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 (Target to Target)	Sao 8mm Close 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

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



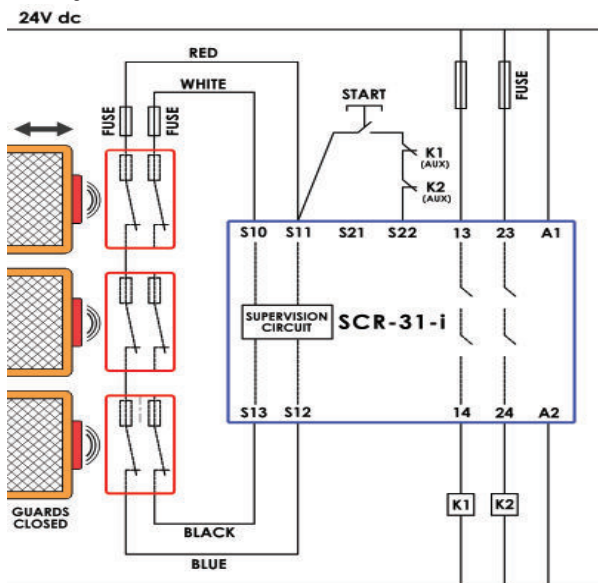
**Stainless Steel 316 Housing mirror polished (Ra4)**  
**Magnetic Actuation - Power Series 230Vac/24Vdc 2.0A**  
**Switching Tolerance up to 12mm**  
**Will operate with most Safety Relays**



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

## CONNECTION EXAMPLE: Magnetic Switches

Three switches connected in series to an SCR-21-i or SCR-31-i to give Dual Channel guard monitoring with Monitored Manual Start and Contactor Feedback check.



0V

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



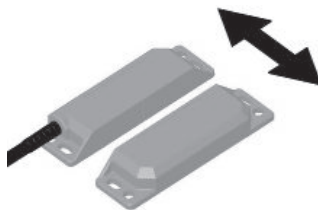
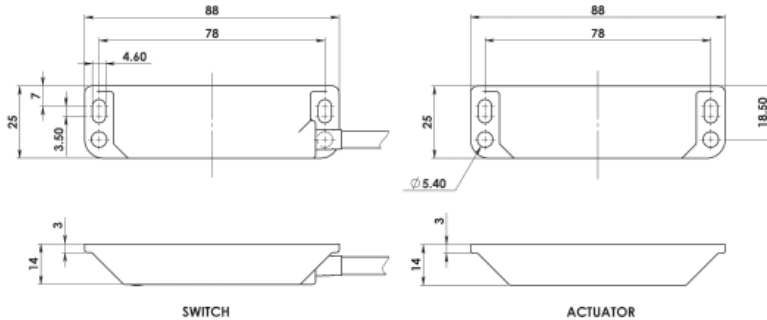
# HYGIEMAG - Magnetic Non Contact: LMR (with Integral LED)

## FEATURES:

- 2NC circuits for connection to safety relays to achieve up to: PLe ISO13849-1
- Integral LED indication of sensing position
- Choice of LED versions:
  - Green - ON when guard is closed
  - Red - ON when guard is open

- Stainless Steel 316 housing - IP69K suitable for high pressure hosing
- Popular European style narrow fitting for flush mounting
- Wide 10mm sensing with high tolerance to misalignment
- Long life high power switching capability up to 1A
- M12 Quick Connect versions available

## DIMENSIONS:



Recommended operating direction for optimum performance

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

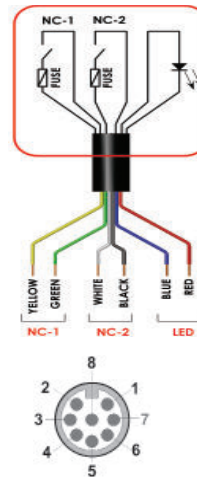
### Safety Classification and Reliability Data:

- Safety Channels NC1 and NC2
- Fuse (NC Circuits) Voltage free: 250Vac 1.0A Max. Fuse externally 0.8A (F)
- 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
- LED Supply Voltage 24Vdc +/-10%
- NC Switching Distance Sao 8mm Close Sar 22mm Open (Target to Target)
- LED (Green) Typical 8mm ON 15mm OFF
- LED (Red) Typical 8mm OFF 15mm ON
- 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 Ra4
- Operating Temperature -25C +105C (CIP SIP cleaning)
- Enclosure Protection IP67 IP69K
- Shock Resistance IEC68-2-27 11ms 30g
- Vibration Resistance IEC68-2-6 10-55Hz 1mm
- Mechanical Life Expectancy 10,000,000 switching operations
- Electrical Life Expectancy 1,000,000 switching operations
- De-rating Safety Factor 2
- Tested to 2,000,000 cycles at 24V 0.2A
- Cable Type PVC 6 core 6mm OD Conductors 0.25mm<sup>2</sup>
- Mounting Bolts 2xM4 Tightening torque 1.0Nm
- Mounting Position Any

**Integral LED (options available)**  
**Magnetic Actuation - Power Series**  
**Switching Tolerance up to 10mm**  
**Will operate with most Safety Relays**



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



**Note:** The LED does not indicate the status of the NC Safety Contacts, but indicates that the actuator is allowed to give optimum performance.

Quick Connect QC M12 8 Way Male Plug Pin view from Switch	Standard Lead Colour	Circuit (Actuator Present)
4	Yellow	NC2
6	Green	NC2
7	Black	NC1
1	White	NC1
2	Red	Supply + 24Vdc
3	Blue	Supply 0Vdc

LED COLOUR AND STATUS	SALES NUMBER	TYPE	CABLE LENGTH	OUTPUT CIRCUITS
<b>LED GREEN</b> (Illuminated when the guard is closed)	133120	Hygiemag LMR (with Integral LED)	2M	2NC
	133121	Hygiemag LMR (with Integral LED)	5M	2NC
	133122	Hygiemag LMR (with Integral LED)	10M	2NC
	133123	Hygiemag LMR (with Integral LED)	QC-M12	2NC
<b>LED RED</b> (Illuminated when the guard is open)	133124	Hygiemag LMR (with Integral LED)	2M	2NC
	133125	Hygiemag LMR (with Integral LED)	5M	2NC
	133126	Hygiemag LMR (with Integral LED)	10M	2NC
	133127	Hygiemag LMR (with Integral LED)	QC-M12	2NC

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

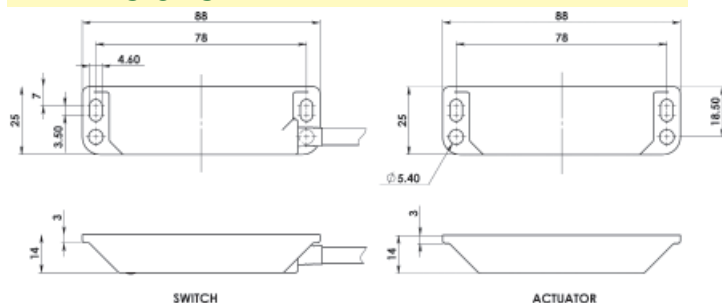
	140101	Female QC Lead	M12 Female 5m. 8 way
	140102	Female QC Lead	M12 Female 10m. 8 way

# HYGIEMAG - Magnetic Non Contact Type: LMR

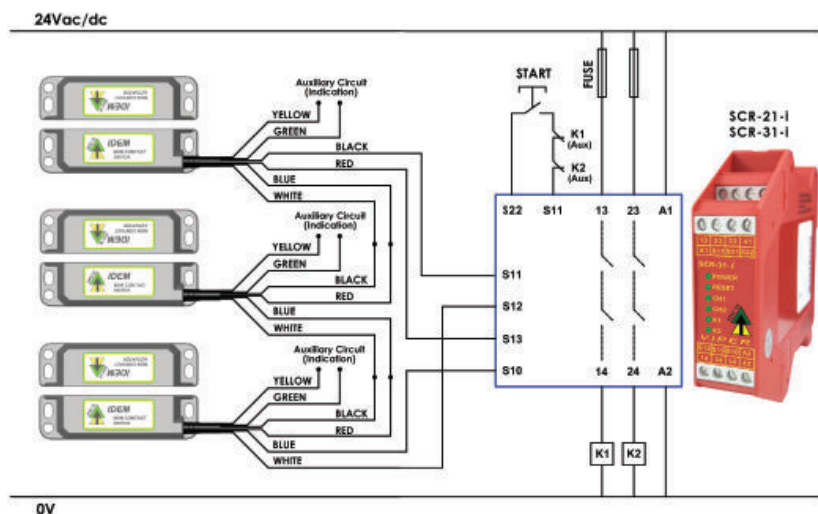
## FEATURES:

- Specifically designed for Food Processing applications -
- Stainless Steel 316 Mirror Polished finish (Ra4)
- Suitable for CIP and SIP cleaning -
- Food Splash Zones EHEDG guidelines - IP69K
- Wide sensing at 12mm with high tolerance to misalignment
- Narrow fitting enables flush mounting
- Can be high pressure hosed at high temperature
- Long life high power switching capability - up to 1.0A
- Up to: PLe ISO13849-1
- 2NC 1NO circuits Quick Connect versions available

## DIMENSIONS:



## CONNECTION EXAMPLE: Magnetic Switches



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

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>6</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
Medium Duty	Safety Channel 1 NC
	Safety Channel 2 NC
	Safety Channel 3 NO
	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

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



Stainless Steel 316 Housing mirror polished (Ra4)  
Magnetic Actuation - Power Series 230Vac/24Vdc 1.0A  
Switching Tolerance up to 12mm  
Will operate with most Safety Relays

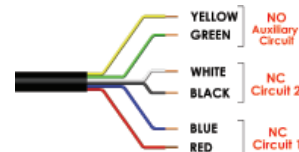
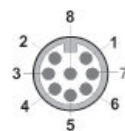


IP69K

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



Three switches connected in series to an SCR-21-i or SCR-31-i to give Dual Channel guard monitoring with Monitored Manual Start and Contactor Feedback check. Optional auxiliary circuits provide for remote signalling from each switch.



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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
133009	Hygiemag LMR	2M	2NC
133010	Hygiemag LMR	5M	2NC
133011	Hygiemag LMR	10M	2NC
133012	Hygiemag LMR	QC-M12	2NC
133013	Hygiemag LMR	2M	2NC 1NO
133014	Hygiemag LMR	5M	2NC 1NO
133015	Hygiemag LMR	10M	2NC 1NO
133016	Hygiemag LMR	QC-M12	2NC 1NO



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

# HYGIEMAG - Magnetic Non Contact Type: MMR-H

## FEATURES:

Compact and robust fitting suitable for all small guard applications.  
Through hole fixing to enable front mounting - no food trap areas  
Suitable for CIP and SIP cleaning -

Food Contact or Splash Zones EHEDG guidelines

Cost effective interlock solution for harsh environments  
Wide sensing at 10mm with high tolerance to misalignment  
Stainless Steel 316 housing with Mirror Polished finish (Ra4)  
Can be mounted unobtrusively in channels or behind doors

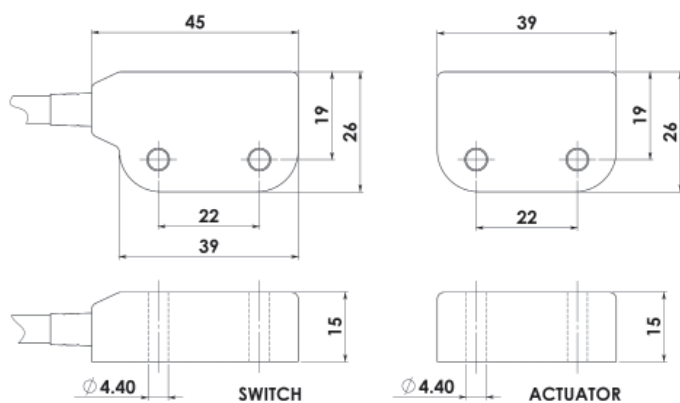
Left or Right Cable exit options available

Up to: PLc ISO13849-1

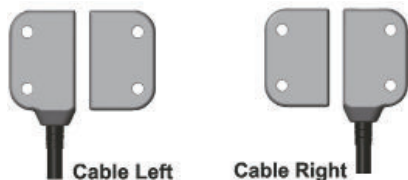
2NC 1NO circuits

Quick Connect versions available

## DIMENSIONS:



Left or Right  
Cable Exit  
Options  
available



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

### Safety Classification and

#### Reliability Data:

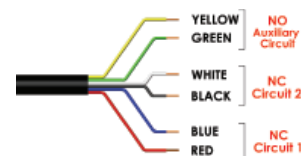
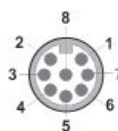
Mechanical Reliability B10d	3.3 x 10 <sup>6</sup> operations at 100mA load
ISO13849-1	Up to PLc depending upon system architecture
Safety Data – Annual Usage	8 cycles per hour/24 hours per day/365 days
	MTTFd 470 years
Safety Channel 1 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 2 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
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 20mm 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 IP67
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

Stainless Steel 316 Housing mirror polished (Ra4)

Magnetic Actuation

Switching Tolerance up to 10mm

Will operate with most Safety Relays



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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
131001	MMR-H Cable Right	2M	2NC
131002	MMR-H Cable Right	5M	2NC
131003	MMR-H Cable Right	10M	2NC
131004	MMR-H Cable Right	QC-M12	2NC
131005	MMR-H Cable Right	2M	2NC 1NO
131006	MMR-H Cable Right	5M	2NC 1NO
131007	MMR-H Cable Right	10M	2NC 1NO
131008	MMR-H Cable Right	QC-M12	2NC 1NO
131009	MMR-H Cable Left	2M	2NC
131010	MMR-H Cable Left	5M	2NC
131011	MMR-H Cable Left	10M	2NC
131012	MMR-H Cable Left	QC-M12	2NC
131013	MMR-H Cable Left	2M	2NC 1NO
131014	MMR-H Cable Left	5M	2NC 1NO
131015	MMR-H Cable Left	10M	2NC 1NO
131016	MMR-H Cable Left	QC-M12	2NC 1NO

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



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



# HYGIEMAG - Magnetic Non Contact Type: RMR (M30)

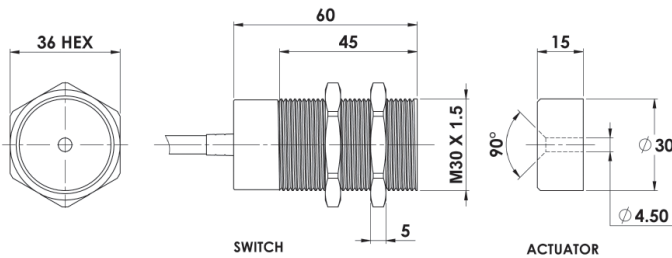
## FEATURES:

M30 cylindrical fitting suitable for all industry applications.  
 Easy to install - M30 threaded body - easy to set  
 Wide 10mm sensing  
 Suitable for harsh environments of Food Processing and Packaging  
 Up to: PLe ISO13849-1  
 2NC 1NO circuits  
 Quick Connect versions available

**Stainless Steel 316 Housing**  
**Magnetic Actuation**  
**Switching Tolerance up to 10mm**  
**Will operate with most Safety Relays**  
**Quick Connect versions available**



## DIMENSIONS:

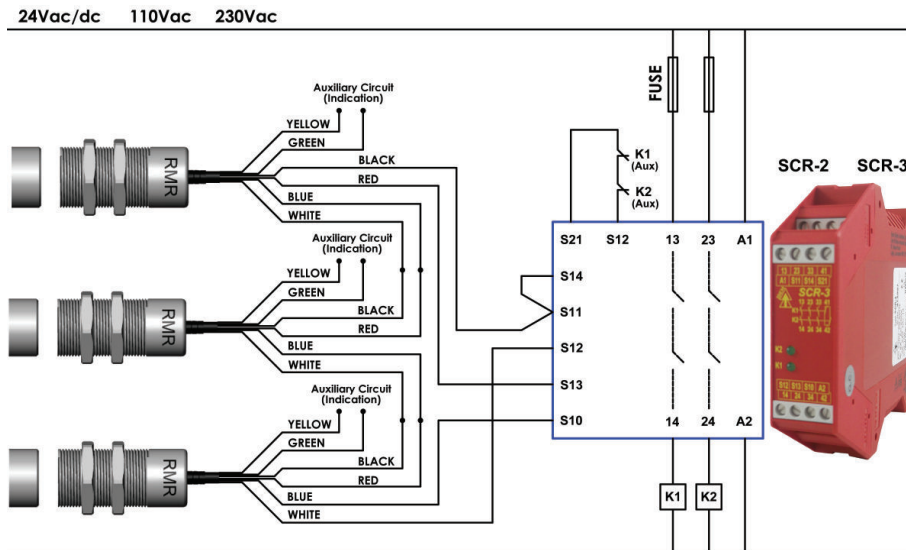


IP69K

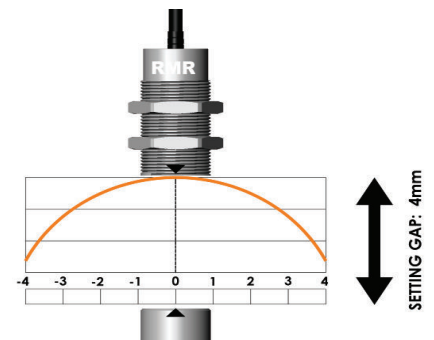


Quick Connect M12 versions fitted with 250mm (10") cable

## CONNECTION EXAMPLE: Magnetic Switches



## SETTING GAP:



0V

Three switches connected in series to an SCR-2 or SCR-3 to give Dual Channel guard monitoring with Automatic Start and Contactor Feedback Check.

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

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>6</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
Safety Channel 1 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 2 NC	Voltage Free: 250Vac 0.5A Max. Rating
Safety Channel 3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
Minimum Switched Current	10Vdc 1mA
Dielectric Withstand	250Vac
Insulation Resistance	100 Mohms
Recommended Setting Gap	5mm
Switching Distance (Target to Target)	Sao 8mm Close Sar 20mm Open
Tolerance to Misalignment	4mm in any direction from 4mm setting gap
Switching Frequency	1.0Hz maximum
Approach Speed	200mm/min to 1000mm/sec
Body Material	Stainless Steel 316
Operating Temperature	-25C +105C (CIP SIP cleaning)
Enclosure Protection	IP69K IP67
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 Position	Any

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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
134009	Hygiemag RMR S/Steel 316	2M	2NC
134010	Hygiemag RMR S/Steel 316	5M	2NC
134011	Hygiemag RMR S/Steel 316	10M	2NC
134012	Hygiemag RMR S/Steel 316	QC-M12	2NC
134013	Hygiemag RMR S/Steel 316	2M	2NC 1NO
134014	Hygiemag RMR S/Steel 316	5M	2NC 1NO
134015	Hygiemag RMR S/Steel 316	10M	2NC 1NO
134016	Hygiemag RMR S/Steel 316	QC-M12	2NC 1NO

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

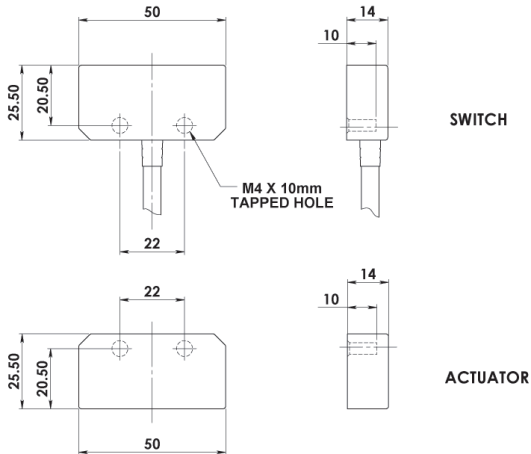
140101	Female QC Lead	M12 Female 5m. 8 way
140102	Female QC Lead	M12 Female 10m. 8 way

# HYGIEMAG - Magnetic Non Contact Type: SMR-F

## FEATURES:

Specifically designed for Food Processing applications  
 Suitable for CIP and SIP cleaning - mounting holes at rear - no food traps  
 Suitable for Food Contact Zones - EHEDG Guidelines  
 Wide 12mm sensing with high tolerance to misalignment  
 Universal housing - 22mm fixing hole centre - 50mm wide body  
 Can be high pressure hosed at high temperature - IP69K  
 Rear fixing with 2 x M4 tapped holes  
 Up to: PLe ISO13849-1  
 2NC 1NO circuits  
 Quick Connect versions available

## DIMENSIONS:

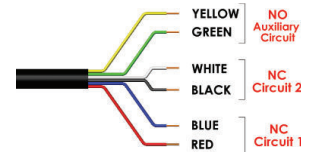
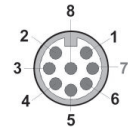
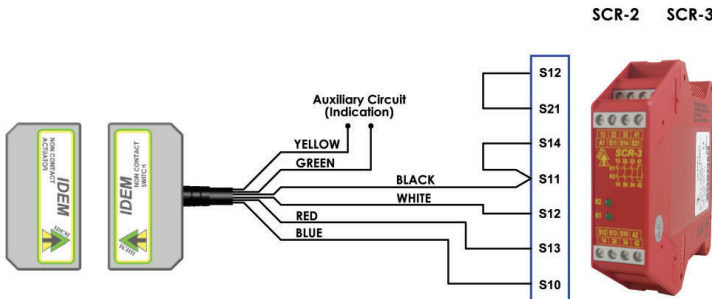


**Stainless Steel 316 Housing mirror polished (Ra4)**  
**Magnetic Actuation - Power Series**  
**Medium Duty 230Vac 1.0A/24Vdc 1.0A**  
**Switching Tolerance up to 12mm**  
**Will operate with most Safety Relays**



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

## CONNECTION EXAMPLE: Magnetic Switches



One switch connected to an SCR-2 or SCR-3 to give Dual Channel guard monitoring but with Automatic Start.

**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
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

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

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

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

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

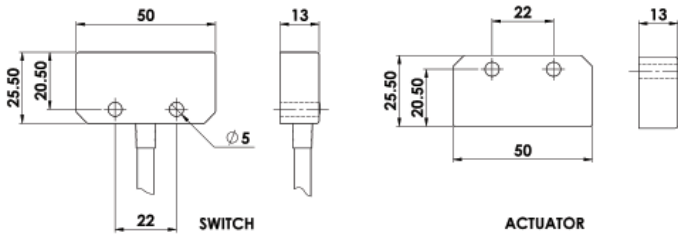


# HYGIEMAG - Magnetic Non Contact Type: SMR-H

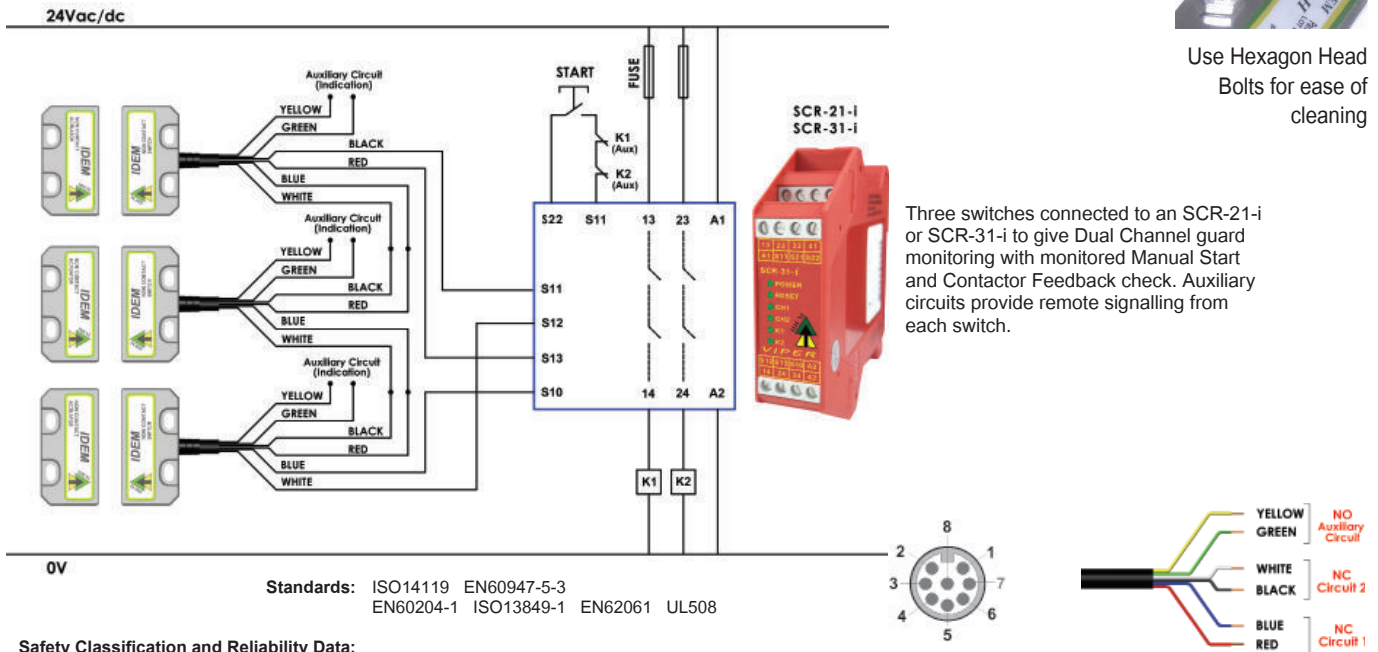
## FEATURES:

Robust Stainless Steel 316 enclosure designed to survive Food Processing, Packaging and Pharmaceutical applications  
Through hole fixing to enable front mounting by Hexagon head bolts - no food trap areas  
Suitable for CIP and SIP cleaning -  
Food Contact or Food Splash Zones EHEDG guidelines  
Universal Housing - 22mm fixing hole centre with 50mm wide body  
Wide sensing at 12mm with high tolerance to misalignment  
Up to: PLe ISO13849-1  
2NC 1NO circuits  
Quick Connect versions available

## DIMENSIONS:



## CONNECTION EXAMPLE: Magnetic Switches



### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>6</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
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 (Target to Target)	Sao 8mm Close 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

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



**Stainless Steel 316 Housing mirror polished (Ra4)**  
**Magnetic Actuation**  
**Switching Tolerance up to 12mm**  
**Will operate with most Safety Relays**



Use Hexagon Head Bolts for ease of cleaning

Three switches connected to an SCR-21-i or SCR-31-i to give Dual Channel guard monitoring with monitored Manual Start and Contactor Feedback check. Auxiliary circuits provide remote signalling from each switch.



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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
132009	Hygiemag SMR-H	2M	2NC
132010	Hygiemag SMR-H	5M	2NC
132011	Hygiemag SMR-H	10M	2NC
132012	Hygiemag SMR-H	QC-M12	2NC
132013	Hygiemag SMR-H	2M	2NC 1NO
132014	Hygiemag SMR-H	5M	2NC 1NO
132015	Hygiemag SMR-H	10M	2NC 1NO
132016	Hygiemag SMR-H	QC-M12	2NC 1NO

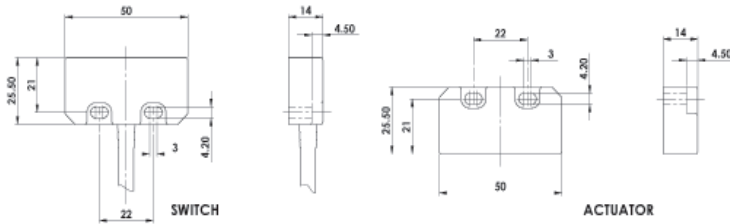
140101	Female QC Lead	M12 Female 5m. 8 way
140102	Female QC Lead	M12 Female 10m. 8 way

# HYGIEMAG - Magnetic Non Contact Type: SMR

## FEATURES:

- Specifically designed for Food Processing applications -
- Stainless Steel 316 Mirror Polished finish (Ra4)
- Suitable for CIP and SIP cleaning -
- Food Splash Zones EHEDG guidelines
- Universal housing - 22mm fixing hole centre with a 50mm wide body
- Wide sensing at 12mm with high tolerance to misalignment
- Can be high pressure hosed at high temperature
- High switching capability - up to 1.0A
- Up to: PLe ISO13849-1
- 2NC 1NO circuits
- Quick Connect versions available

## DIMENSIONS:

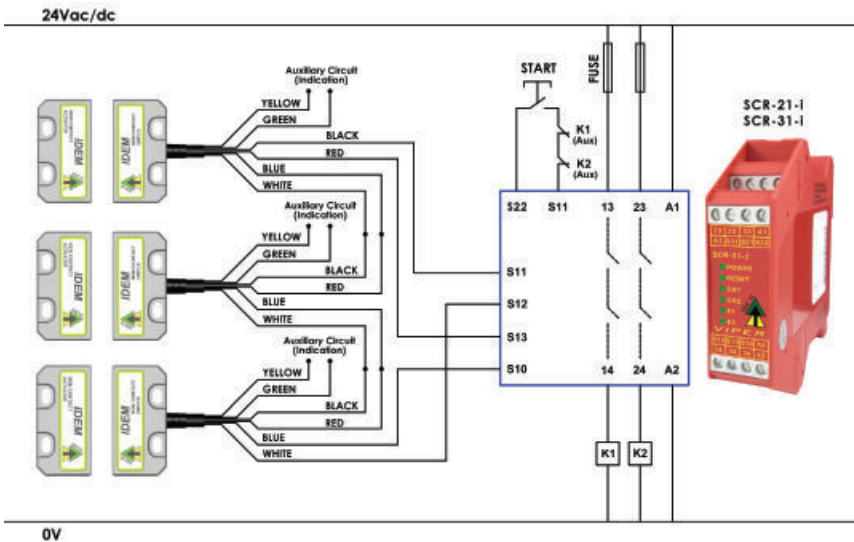


**Stainless Steel 316 Housing mirror polished (Ra4)**  
**Magnetic Actuation - Power Series 230Vac/24Vdc 1.0A**  
**Switching Tolerance up to 12mm**  
**Will operate with most Safety Relays**

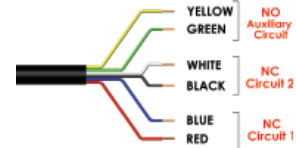
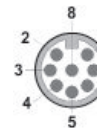


Quick Connect M12 versions fitted with 250mm (10") cable

## CONNECTION EXAMPLE: Magnetic Switches



Three SMR switches connected to an SCR-21-i or SCR-31-i to give dual channel guard monitoring with monitored manual start and contactor feedback check. Auxiliary circuits provide remote signalling from each switch.



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 ISO13849-1
- Safety Data – Annual Usage 8 cycles per hour/24 hours per day/365 days
- MTTFd 470 years
- 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 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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
139009	Hygiemag SMR	2M	2NC
139010	Hygiemag SMR	5M	2NC
139011	Hygiemag SMR	10M	2NC
139012	Hygiemag SMR	QC-M12	2NC
139013	Hygiemag SMR	2M	2NC 1NO
139014	Hygiemag SMR	5M	2NC 1NO
139015	Hygiemag SMR	10M	2NC 1NO
139016	Hygiemag SMR	QC-M12	2NC 1NO
139017	Hygiemag SMR	2M	1NC
139018	Hygiemag SMR	5M	1NC
139019	Hygiemag SMR	10M	1NC
139020	Hygiemag SMR	QC-M12	1NC
139021	Hygiemag SMR	2M	1NC 1NO
139022	Hygiemag SMR	5M	1NC 1NO
139023	Hygiemag SMR	10M	1NC 1NO
139024	Hygiemag SMR	QC-M12	1NC 1NO

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

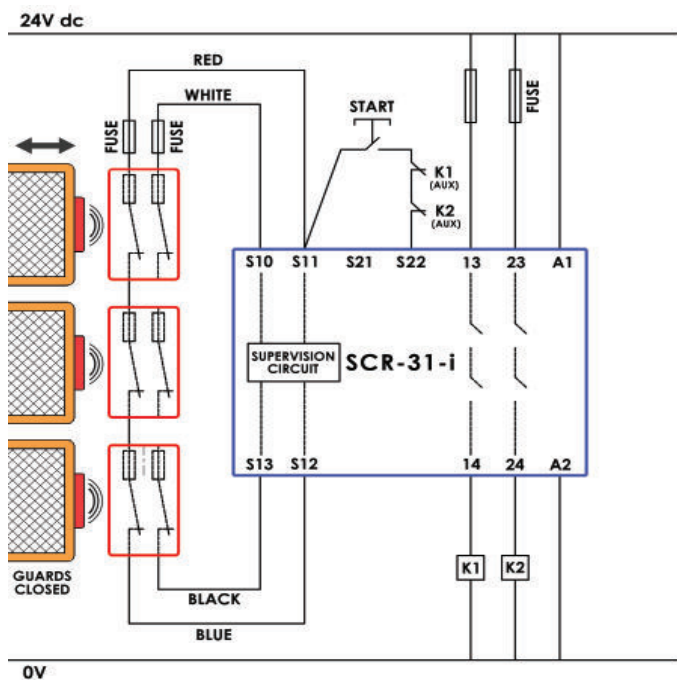
140101	Female QC Lead	M12 Female 5m. 8 way
140102	Female QC Lead	M12 Female 10m. 8 way

# HYGIEMAG - Magnetic Non Contact Type: WMR

## FEATURES:

Specifically designed for Food Processing applications -  
 Stainless Steel 316 Mirror Polished finish (Ra4)  
 Suitable for CIP and SIP cleaning -  
 Food Splash Zones EHEDG guidelines  
 Industry standard fixings  
 Wide sensing at 12mm with high tolerance to misalignment  
 Can be high pressure hosed at high temperature IP69K  
 Long life high power switching capability - Heavy Duty 2.0A  
 Up to: PLe  
 Quick Connect versions available

## CONNECTION EXAMPLE: Magnetic Switches



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

### Safety Classification and Reliability Data:

Mechanical Reliability B10d	3.3 x 10 <sup>6</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
Heavy Duty	MTTFd 470 years
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)
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

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.

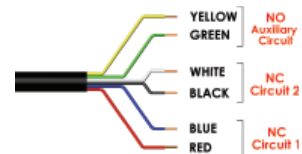
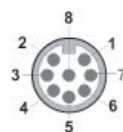
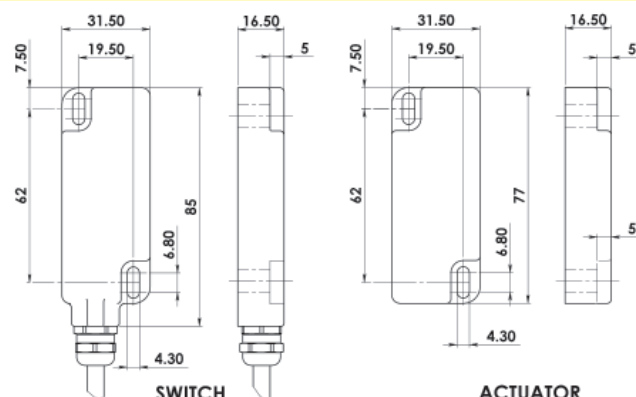


Stainless Steel 316 Housing mirror polished (Ra4)  
 Magnetic Actuation - Power Series 230Vac/24Vdc 2.0A  
 Switching Tolerance up to 12mm  
 Will operate with most Safety Relays



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

## DIMENSIONS:



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

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
136001	Hygiemag WMR	2M	2NC
136002	Hygiemag WMR	5M	2NC
136003	Hygiemag WMR	10M	2NC
136004	Hygiemag WMR	QC-M12	2NC
136005	Hygiemag WMR	2M	2NC 1NO
136006	Hygiemag WMR	5M	2NC 1NO
136007	Hygiemag WMR	10M	2NC 1NO
136008	Hygiemag WMR	QC-M12	2NC 1NO
136009	Hygiemag WMR	2M	1NC 1NO
136010	Hygiemag WMR	5M	1NC 1NO
136011	Hygiemag WMR	10M	1NC 1NO
136012	Hygiemag WMR	QC-M12	1NC 1NO