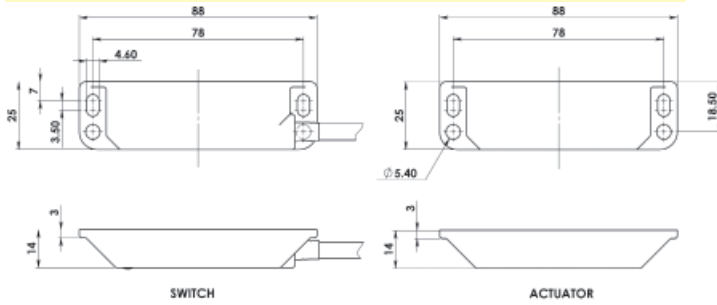


HYGIEMAG - Magnetic Non Contact Type: LMR

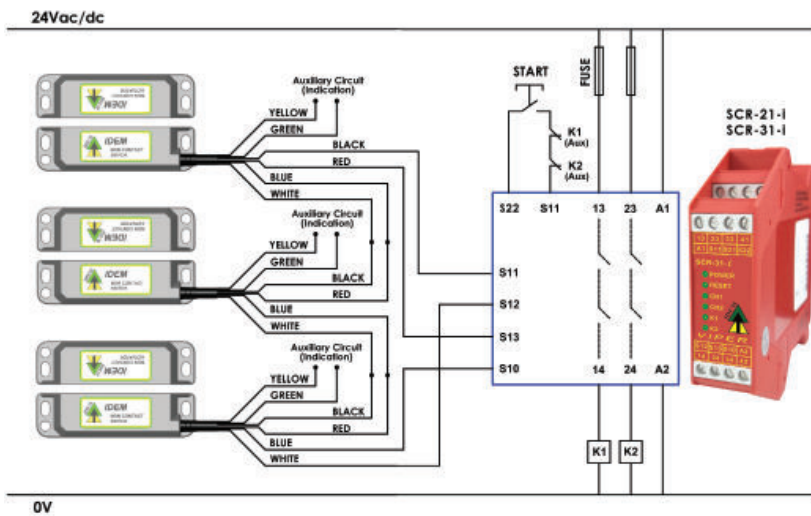
FEATURES:

- 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 EN60947-5-1
EN60204-1 ISO13849-1 EN62061 UL508

Safety Classification and Reliability Data:

| | |
|---------------------------------|---|
| Mechanical Reliability B10d | 3.3 x 10 ⁶ 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 ² |
| 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

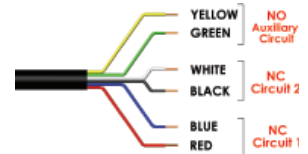
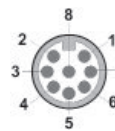


IP69K

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: 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

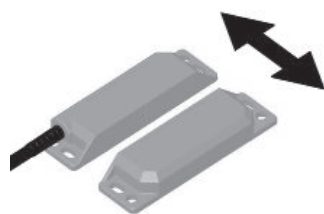
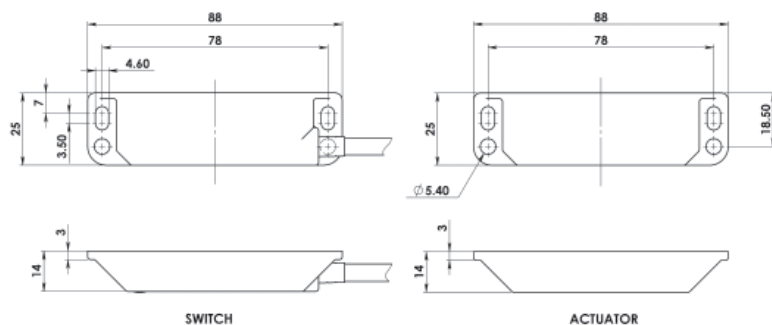
Popular European style narrow fitting for flush mounting

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 EN60947-5-1
EN60204-1 ISO13849-1 EN62061 UL508

Safety Classification and Reliability Data:

| | |
|-----------------------------|--|
| Safety Channels NC1 and NC2 | Voltage free: 250Vac 1.0A Max. |
| Fuse (NC Circuits) | 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 |
| (Target to Target) | Sar 22mm Open |
| 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 ² |
| Mounting Bolts | 2xM4 Tightening torque 1.0Nm |
| Mounting Position | Any |

Integral LED (options available)

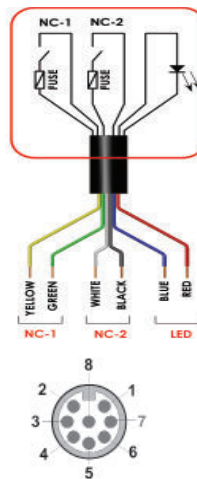
Magnetic Actuation - Power Series

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 aligned 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 |
|--|--------------|----------------------------------|--------------|-----------------|
| LED GREEN (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 |
| LED RED (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 |