# Magnetically Operated: LPR (EUROMAG)

## **FEATURES:**

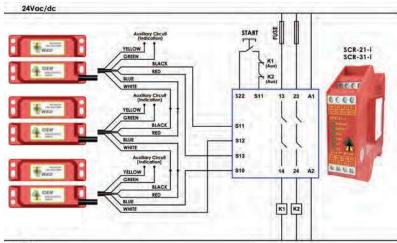
Popular European fitting suitable for all industry applications. Wide 12mm sensing and high tolerance to misalignment. Narrow fitting to enable flush mounting. Long life high power switching capability up to 1A. Up to: PLe ISO13849-1.

2NC 1NO circuits.

Quick Connect versions available.

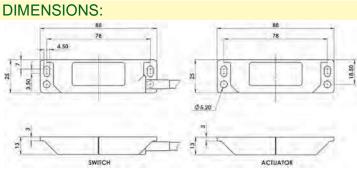
Magnetic Actuation - Power Series. Switching Tolerance up to 12mm. Medium Duty versions 230Vac/24Vdc 1A. Will operate with most Safety Relays.

# **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

Optional auxiliary circuits provides for remote signalling from each switch.



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

### **Technical Specification:**

Safety Channel 1 NC Medium Duty Safety Channel 2 NC Safety Channel 3 NO Fuse Contact Release Time

Initial Contact Resistance Minimum Switched Current Dielectric Withstand Insulation Resistance Recommended Setting Gap Switching Distance (Target to Target)

Tolerance to Misalignment Switching Frequency Approach Speed **Body Material** Operating Temperature Enclosure Protection

Shock Resistance Vibration Resistance Cable Type Mounting Position Any

3.3 x 10<sup>6</sup> operations at 100mA load Up to PLe depending upon system architecture 8 cycles per hour/24 hours per day/365 days MTTFd 470 years

Voltage Free: 250Vac 1.0A Max. Rating Voltage Free: 250Vac 1.0A Max. Rating Voltage Free: 24Vdc 0.2A Max. Rating Internal 1.0A (F) External 0.8A (F) (User) <2ms <500 milliohm

10Vdc 1mA 250Vac 100 Mohms 5mm 8mm Close Sar 22mm Open

5mm in any direction from 5mm setting gap 1.0Hz maximum

200mm/min to 1000mm/sec UL approved polyester -25C +80C

IP69K (NEMA PW12) IP67 (NEMA 6) IEC68-2-27 11ms IEC68-2-6 10-55Hz 1mm

PVC 6 core 6mm OD Conductors 0.25mm<sup>2</sup> Mounting Bolts 2xM4 Tightening torque 1.0Nm

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



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





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



NC1 Pins 1 and 2 NC2 Pins 3 and 4 M12 4 Way Versions Asi compatible Pin out Pin view from switch

SALES NUMBER	TYPE	CABLE LENGTH	CIRCUITS
110009	Euromag LPR	2M	2NC
110010	Euromag LPR	5M	2NC
110011	Euromag LPR	10M	2NC
110012	Euromag LPR	QC-M12	2NC
110013	Euromag LPR	2M	2NC 1NO
110014	Euromag LPR	5M	2NC 1NO
110015	Euromag LPR	10M	2NC 1NO
110016	Euromag LPR	QC-M12	2NC 1NO
110021	Euromag LPR	2M	1NC 1NO
110022	Euromag LPR	5M	1NC 1NO
110023	Euromag LPR	10M	1NC 1NO
110024	Euromag LPR	QC-M12 4 Way	2NC



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

Plastic 8mm Spacers (2) for use when 110300 mounting on Ferrous Materials

1 x Actuator

# Magnetically Operated: LPR with LED (EUROMAG)

## **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:

**DIMENSIONS:** 

Green - ON when guard is closed.

Red - ON when guard is open.

Popular European fitting suitable for all industry applications.

Narrow fitting to allow 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.

Integral LED (options available). Magnetic Actuation - Power Series. Switching Tolerance up to 10mm.

Will operate with most Safety Relays.









Recommended operating direction for optimum performance

ACTUATOR

Standards:

ISO14119 FN60947-5-3 EN60204-1 ISO13849-1 EN62061 UL508

Safety Classification and Reliability Data: Safety Channels NC1 and NC2 Fuse (NC Circuits) Contact Release Time Initial Contact Resistance Minimum Switched Current Dielectric Withstand

Insulation Resistance Recommended Setting Gap LED Supply Voltage NC Switching Distance (Target to Target) LED (Green) LED (Red) Tolerance to Misalignment Switching Frequency Approach Speed Body Material

Operating Temperature Enclosure Protection Shock Resistance Vibration Resistance Mechanical Life Expectancy Electrical Life Expectancy

> Cable Type Mounting Bolts Mounting Position

Voltage free: 250Vac 1.0A Max. Fuse externally 0.8A (F) <2ms <500 milliohm 10Vdc 1mA

100 Mohms 24Vdc +/-10% 8mm Close Sao

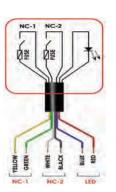
Sar 22mm Open Typical 8mm ON 15mm OFF Typical 8mm OFF

5mm in any direction from 5mm setting gap 1.0Hz maximum 200mm/min to 1000mm/sec

UL approved polyester +80C

IEC68-2-27 IEC68-2-6 11ms 10-55Hz 1mm 10,000,000 switching operations 1,000,000 switching operations

De-rating Safety Factor 2
Tested to 2,000,000 cycles at 24V 0.2A
PVC 6 core 6mm OD Conductors 0.25mm² 2xM4 Tightening torque 1.0Nm



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



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

LED COLOUR AND STATUS	SALES NUMBER	TYPE	CABLE LENGTH	OUTPUT CIRCUITS
LED GREEN (Illuminated when the guard is closed)	110101	Euromag LPR (with Integral LED)	2M	2NC
	110102	Euromag LPR (with Integral LED)	5M	2NC
	110103	Euromag LPR (with Integral LED)	10M	2NC
	110104	Euromag LPR (with Integral LED)	QC-M12	2NC
<b>LED RED</b> (Illuminated when the guard is open)	110105	Euromag LPR (with Integral LED)	2M	2NC
	110106	Euromag LPR (with Integral LED)	5M	2NC
	110107	Euromag LPR (with Integral LED)	10M	2NC
	110108	Euromag LPR (with Integral LED)	QC-M12	2NC

110300	Plastic 8mm Spacers (2) for use when	1 x Switch
	mounting on Ferrous Materials	1 x Actuator