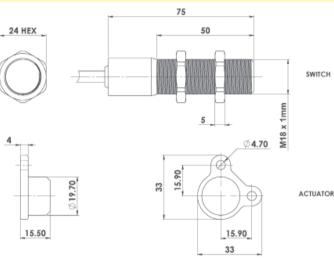
## FEATURES:

M18 cylindrical fitting suitable for all industry applications. Easy to install - M18 threaded body - easy to set Wide 10mm sensing Suitable for harsh environments of Food Processing and Packaging High specification red polyester housing

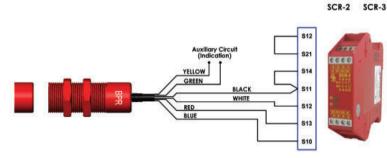
## **Magnetic Actuation** Switching Tolerance up to 10mm Will operate with most Safety Relays **Quick Connect versions available**

Up to: PLe ISO13849-1 2NC 1NO circuits Quick Connect versions available

## **DIMENSIONS:**



## **CONNECTION EXAMPLE: Magnetic Switches**



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

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

Safety Classification and Reliability Data: Mechanical Reliability B100 ISO13849-

when the guard is closed and the actuator is present.

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 8mm 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	UL approved polyester
Operating Temperature	-25C +80C
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 close	ed (NC) circuits are closed



SETTING GAP: ETTING GAP: -2 YELLOW GREEN WHITE BLACK BLUE RED

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
415009	Idemag BPR Plastic	2M	2NC
415010	Idemag BPR Plastic	5M	2NC
415011	Idemag BPR Plastic	10M	2NC
415012	Idemag BPR Plastic	QC-M12	2NC
415013	Idemag BPR Plastic	2M	2NC 1NO
415014	Idemag BPR Plastic	5M	2NC 1NO
415015	Idemag BPR Plastic	10M	2NC 1NO
415016	Idemag BPR Plastic	QC-M12	2NC 1NO



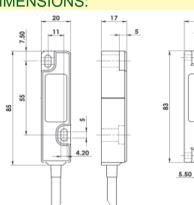
**SECTION 12** 

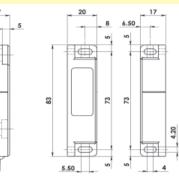
# IDEMAG - Magnetic Non Contact Type: CPR

## FEATURES:

Can be high pressure hosed at high temperature IP69K Slim fitting suitable for all industry applications. Easy to install within narrow frame structures Operates from two sides for ease of applications Wide 12mm sensing and high tolerance to misalignment High switching capability 1A (medium duty) or 2A (heavy duty) Up to: PLe ISO13849-1 2NC 1NO circuits Quick Connect versions available

## DIMENSIONS:





SWITCH

	8
2	
3-	
4	6
	5

ACTUATOR

LACK

4 5 6		
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

x 10<sup>6</sup> operations at 100mA load

#### Safety Classification and Reliability Data:

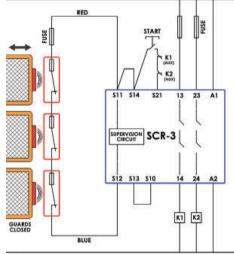
Reliability Data:	
Mechanical Reliability B10d	3.3
ISO13849-1	Up
Safety Data – Annual Usage	8 cy
	MT
Heavy Duty Safety Channel 1 NC	Volt
Safety Channel 2 NC	Volt
Safety Channel 3 NO	Volt
Fuse	Inte
Medium Duty Safety Channel 1 NC	Volt
Safety Channel 2 NC	Vol
Safety Channel 3 NO	Vol
Fuse	Inte
Contact Release Time	<2n
Initial Contact Resistance	<50
Minimum Switched Current	10\
Dielectric Withstand	250
Insulation Resistance	100
Recommended Setting Gap	5mi
Switching Distance	Sac
(Target to Target)	Sar
Tolerance to Misalignment	5mi
Switching Frequency	1.01
Approach Speed	200
Body Material	UL
Operating Temperature	-25
Enclosure Protection	IP6
Shock Resistance	IEC IEC
Vibration Resistance	PV
Cable Type	2xN
Mounting Bolts	
Mounting Position	Any

310d	3.3 x 10° operations at 100mA load
49-1	Up to PLe depending upon system architecture
sage	8 cycles per hour/24 hours per day/365 days
	MTTFd 470 years
1 NC	Voltage Free: 250Vac 2.0A Max. Rating
2 NC	Voltage Free: 250Vac 2.0A Max. Rating
3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
Fuse	Internal 2.0A (F) External 1.6A (F) (User)
1 NC	Voltage Free: 250Vac 1.0A Max. Rating
2 NC	Voltage Free: 250Vac 1.0A Max. Rating
3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
Fuse	Internal 1.0A (F) External 0.8A (F) (User)
Time	<2ms
ance	<500 milliohm
rrent	10Vdc 1mA
stand	250Vac
ance	100 Mohms
Gap	5mm
ance	Sao 8mm Close
rget)	Sar 22mm Open
ment	5mm in any direction from 5mm setting gap
ency	1.0Hz maximum
peed	200mm/min to 1000mm/sec
terial	UL approved polyester
ature	-25C +80C
ction	IP69K (NEMA PW12) IP67 (NEMA 6)
ance	IEC68-2-27 11ms 30g
ance	IEC68-2-6 10-55Hz 1mm
1	PVC 6 core 6mm OD Conductors 0.25mm <sup>2</sup>
Bolts	2xM4 Tightening torque 1.0Nm
sition	Any
clos	ed (NC) circuits are closed

Magnetic Actuation - Power Series Switching Tolerance up to 12mm Heavy Duty 230Vac/24Vdc 2A or Medium Duty 1.0A Will operate with most Safety Relays



CONNECTION EXAMPLE: Magnetic Switches



OV

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

SALES NUMBER		TYPE	CABLE LENGTH	CIRCUITS	NC DUTY
113001	ld	lemag CPR	2M	2NC	Medium 1A
113002	ld	lemag CPR	5M	2NC	Medium 1A
113003	ld	lemag CPR	10M	2NC	Medium 1A
113004	ld	lemag CPR	QC-M12	2NC	Medium 1A
113005	ld	lemag CPR	2M	2NC 1NC	Medium 1A
113006	ld	lemag CPR	5M	2NC 1NC	Medium 1A
113007	ld	lemag CPR	10M	2NC 1NC	Medium 1A
113008	ld	lemag CPR	QC-M12	2NC 1NC	Medium 1A
113009	ld	lemag CPR	2M	1NC	Heavy 2A
113010	ld	lemag CPR	5M	1NC	Heavy 2A
113011	ld	lemag CPR	10M	1NC	Heavy 2A
113012	ld	lemag CPR	QC-M12	1NC	Heavy 2A
113013	ld	lemag CPR	2M	1NC 1NC	Heavy 2A
113014	ld	lemag CPR	5M	1NC 1NC	Heavy 2A
113015	ld	lemag CPR	10M	1NC 1NC	Heavy 2A
113016	ld	lemag CPR	QC-M12	1NC 1NC	Heavy 2A
-	8	140101	Female QC Le	ad M12 Fe	male 5m. 8 way
		140102	Female QC Le	ad M12 Fe	male 10m. 8 way
11330	0		Spacers (2) for on Ferrous Ma		1 x Switch 1 x Actuator

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

142

## EUROMAG - Magnetic Non Contact: LPR (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:

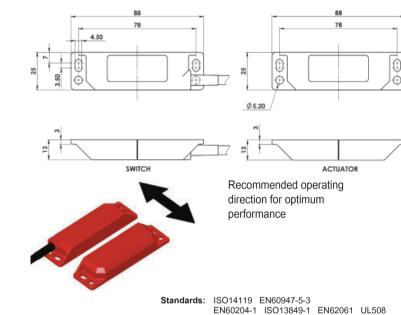
Green - ON when quard is closed

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

DIMENSIONS:





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

250Vac 100 Mohms 5mm 24Vdc +/-10% Sao 8mm Close Sar 22mm Open Typical 8mm ON 15mm OFF Typical 8mm OFF 15mm ON 5mm in any direction from 5mm setting gap 1.0Hz maximum 200mm/min to 1000mm/sec UL approved polyester -25C +80C IP67 IFC68-2-27 11ms 30g IEC68-2-6 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

Voltage free: 250Vac 1.0A Max.

Fuse externally 0.8A (F)

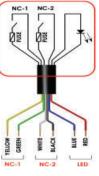
<2ms

<500 milliohm

10Vdc 1mA

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

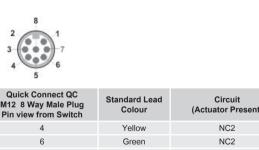
Quick Connect M12 versions fitted with 250mm (10") cable



18.50

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

MAGNETIC NON CONTACT SAFETY INTERLOCK SWITCHES



Pin view from Switch	ooloui	(Addator Frederity
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	ТҮРЕ	CABLE LENGTH	OUTPUT CIRCUITS
	110101	Euromag LPR (with Integral LED)	2M	2NC
LED GREEN (Illuminated when the guard is closed)	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
LED RED (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

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

110300

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

1 x Switch 1 x Actuator

141

www.idemsafety.com

# EUROMAG - Magnetic Non Contact Type: LPR

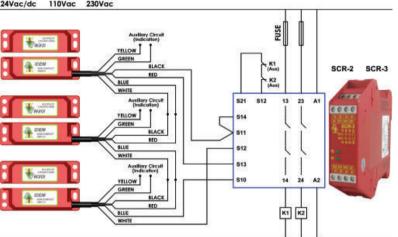
## FEATURES:

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

**CONNECTION EXAMPLE: Magnetic Switches** 

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

24Vac/dc 110Vac 230Vac



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

YELLOW

GREEN WHITE BLACK

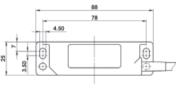
BLUE RED

OV

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.

### DIMENSIONS:



SWITCH



Á

78

85

### Safety Classification and Reliability Data:

Mechanical Reliability B10d ISO13849-1 Safety Data - Annual Usage Medium Duty Safety Channel 1 NC 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 Distanc (Target to Targe Tolerance to Misalignmer Switching Frequence Approach Spee Body Materia Operating Temperatur Enclosure Protection Shock Resistance Vibration Resistance Cable Typ Mounting Bolt

13014119 E1100947-3-3
EN60204-1 ISO13849-1 EN62061 UL508
2.2 ··· 40 <sup>6</sup> as a station of 400 m A load
3.3 x 10 <sup>6</sup> operations at 100mA load
Up to PLe depending upon system architectur
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
0
Internal 1.0A (F) External 0.8A (F) (User)
<2ms
<500 milliohm
10Vdc 1mA
250Vac
100 Mohms
5mm

р	5mm
e	Sao 8mm Close
t)	Sar 22mm Open
nt	5mm in any direction from 5mm setting gap
у	1.0Hz maximum
d	200mm/min to 1000mm/sec
al	UL approved polyester
е	-25C +80C
n	IP69K (NEMA PW12) IP67 (NEMA 6)
e	IEC68-2-27 11ms 30g
e	IEC68-2-6 10-55Hz 1mm
e	PVC 6 core 6mm OD Conductors 0.25mm <sup>2</sup>
ts	2xM4 Tightening torque 1.0Nm
n	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



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

SALES NUMBER	ТҮР	E	CAE		CIRC	UITS
110009	Euromag	J LPR	21	N	2N	С
110010	Euromag	J LPR	51	N	2N	С
110011	Euromag	J LPR	10	M	2N	С
110012	Euromag	J LPR	QC-I	M12	2N	С
110013	Euromag	J LPR	21	N	2NC	1NO
110014	Euromag	LPR	51	N	2NC	1NO
110015	Euromag	J LPR	10	M	2NC	1NO
110016	Euromag	LPR	QC-I	M12	2NC	1NO
110021	Euromag	LPR	21	N	1NC	1NO
110022	Euromag	J LPR	51	N	1NC	1NO
110023	Euromag	LPR	10	M	1NC	1NO
110024	Euromag	LPR	QC-M12	4 Way	2N	С
	1 1 1 0 1 0 1	Formolo	OC Lood	M42 Ear	alo Em	0,000



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

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

<u>www.idemsafety.com</u>

110300

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

# IDEMAG - Magnetic Non Contact Type: MPR

## FEATURES:

Compact and robust fitting suitable for all small guard applications. Hygienic screw covers ensure suitability for Food Processing washdown Cost-effective interlock solution

Wide sensing at 12mm and high tolerance to misalignment High specification polyester housing with integral back plate Can be mounted unobtrusively in channels or behind doors Left or Right Cable exit options available

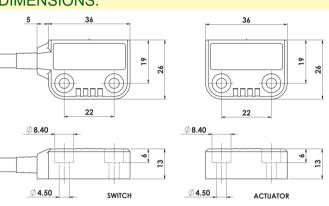
High current switching capability up to 0.5A

Up to: PLe ISO13849-1

2NC 1NO circuits

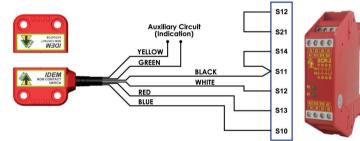
Quick Connect versions available - M12 8 Way or M8 4 Way

## DIMENSIONS:



### CONNECTION EXAMPLE: Magnetic Switches

SCR-2 SCR-3



Standards:

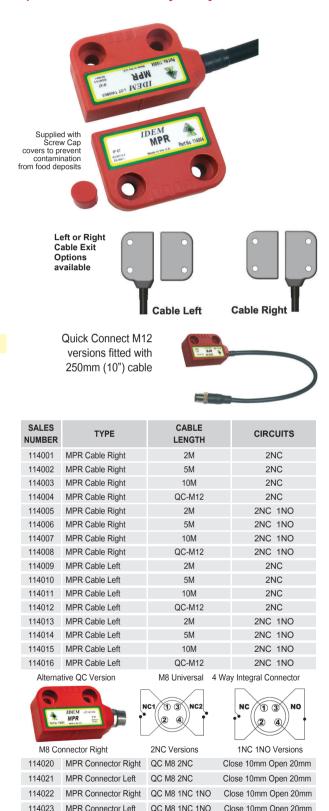
ISO14119 EN60947-5-3 EN60204-1 ISO13849-1 EN62061 UL508

#### Safety Classification and Reliability Data:

when the guard is closed and the actuator is present.

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	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
Fuse	Internal 1.0A (F) External 0.4A (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	UL approved polyester
Operating Temperature	-25C +80C
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	
Mounting Bolts	2xM4 Tightening torque 1.0Nm
Mounting Position	Any
For all IDEM switches the normally close	ed (NC) circuits are closed

## **Magnetic Actuation** Switching Tolerance up to 12mm Will operate with most Safety Relays



MPR Connector Right

MPR Connector Left

MPR Connector Right

MPR Connector Left

QC M8 2NC

QC M8 2NC

Plastic 8mm Spacers (2) for use when

mounting on Ferrous Materials

QC M8 1NC 1NO

QC M8 1NC 1NO

Close 4mm Open 10mm

Close 4mm Open 10mm

Close 4mm Open 10mm

Close 4mm Open 10mm

1 x Switch

1 x Actuator

114024

114025

114026

114027

114300

MAGNETIC NON CONTACT SAFETY INTERLOCK SWITCHES

<u>www.idemsafety.com</u>

# IDEMAG - Magnetic Non Contact Type: RPR (M30 Plastic)

## FEATURES:

**DIMENSIONS:** 

36 HEX

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 High specification red polyester housing Up to: PLe ISO13849-1 2NC 1NO circuits Quick Connect versions available

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



SCR-2

SCR-3

### **CONNECTION EXAMPLE: Magnetic Switches**

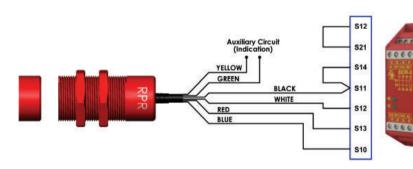
SWITCH

40

45

M30 X

5



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

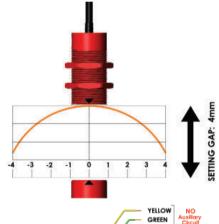
#### Standards: ISO14119 EN60947-5-3 EN60204-1 ISO13849-1 EN62061 UL508

Safety Classification and **Reliability Data:** Mechanical Reliability B10d 3.3 x 10<sup>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 Voltage Free: 250Vac 0.5A Max. Rating Safety Channel 1 NC Safety Channel 2 NC Voltage Free: 250Vac 0.5A Max. Rating Voltage Free: 24Vdc 0.2A Max. Rating Safety Channel 3 NO Minimum Switched Current 10Vdc 1mA Dielectric Withstand 250Vac Insulation Resistance 100 Mohms Recommended Setting Gap 5mm 8mm Close Switching Distance Sao Sar 20mm Open (Target to Target) 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 UL approved polyester Operating Temperature -25C +80C 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.



SETTING GAP:





$\Gamma$	YELLOW GREEN	NO Auxiliary Circuit
	WHITE BLACK	NC Circuit 2
	BLUE RED	NC Circuit 1

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
116009	Idemag RPR Plastic	2M	2NC
116010	Idemag RPR Plastic	5M	2NC
116011	Idemag RPR Plastic	10M	2NC
116012	Idemag RPR Plastic	QC-M12	2NC
116013	Idemag RPR Plastic	2M	2NC 1NO
116014	Idemag RPR Plastic	5M	2NC 1NO
116015	Idemag RPR Plastic	10M	2NC 1NO
116016	Idemag RPR Plastic	QC-M12	2NC 1NO

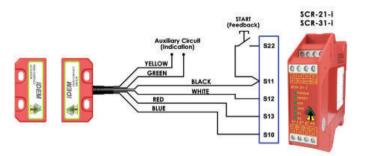


# IDEMAG - Magnetic Non Contact Type: SPR

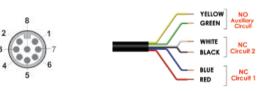
## FEATURES:

Universal fitting - established 22mm fixing footprint Suitable for most general industry applications Can be high pressure hosed at high temperature - IP69K Withstands environments where high humidity or hose down is required Wide sensing at 12mm and high tolerance to misalignment High specification polyester housing with integral back plate Long life high current switching capability up to 1A Up to: PLe ISO13849-1 2NC 1NO circuits Quick Connect versions available

## **CONNECTION EXAMPLE: Magnetic Switches**



Single switch connected to an SCR-21-i or SCR-31-i to give Dual Channel guard monitoring with Manual Start. Optional auxiliary circuit provides for remote signalling from 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 B100 ISO13849-

Safety Data – Annual Usage Safety Channel 1 NO Safety Channel 2 NO Safety Channel 3 NC Fus Contact Release Time Initial Contact Resistance Minimum Switched Curren Dielectric Withstand Insulation Resistance Recommended Setting Gap Switching Distance (Target to Targe Tolerance to Misalignmer Switching Frequency Approach Spee Body Materia Operating Temperatur Enclosure Protection Shock Resistance Vibration Resistance Cable Typ Mounting Bolts

cal Reliability B10d	3.3 x 10° operations at 100mA load
ISO13849-1	Up to PLe depending upon system architecture
ata – Annual Usage	8 cycles per hour/24 hours per day/365 days
	MTTFd 470 years
afety Channel 1 NC	Voltage Free: 250Vac 1.0A Max. Rating
afety Channel 2 NC	Voltage Free: 250Vac 1.0A Max. Rating
afety Channel 3 NO	Voltage Free: 24Vdc 0.2A Max. Rating
Fuse	Internal 1.0A (F) External 0.8A (F) (User)
ntact Release Time	<2ms
Contact Resistance	
n Switched Current	
Dielectric Withstand	
sulation Resistance	100 Mohms
ended Setting Gap	5mm
Switching Distance	
(Target to Target)	
ce to Misalignment	5mm in any direction from 5mm setting gap
witching Frequency	1.0Hz maximum
Approach Speed	
Body Material	UL approved polyester
rating Temperature	-25C +80C
nclosure Protection	IP69K (NEMA PW12) IP67 (NEMA 6)
Shock Resistance	IEC68-2-27 11ms 30g
ibration Resistance	IEC68-2-6 10-55Hz 1mm
Cable Type	
Mounting Bolts	
Mounting Position	Any

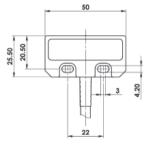
**Magnetic Actuation - Power Series** Switching Tolerance up to 12mm Medium Duty versions 230Vac/24Vdc 1A Will operate with most Safety Relays

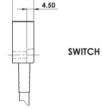


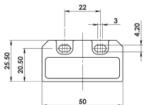
Quick Connect M12 versions fitted with 250mm (10") cable



### **DIMENSIONS:**







111300



SALES NUMBER		TYI	PE		ABLE NGTH	CIRC	UITS
111009		Idemag	) SPR		2M	21	1C
111010		Idemag	J SPR		5M	21	1C
111011		Idemag	J SPR		10M	21	1C
111012		Idemag	J SPR	Q	C-M12	21	1C
111013	Idemag SPR			2M	2NC	1NO	
111014		Idemag	J SPR		5M	2NC	1NO
111015		Idemag SPR			10M	2NC	1NO
111016		Idemag	) SPR	Q	C-M12	2NC	1NO
	1	140101	Female QC	Lead	M12 Fem	ale 5m.	8 wav

Plastic 8mm Spacers (2) for use when

mounting on Ferrous Materials

140102 Female QC Lead M12 Female 10m. 8 way

1 x Switch

1 x Actuator

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

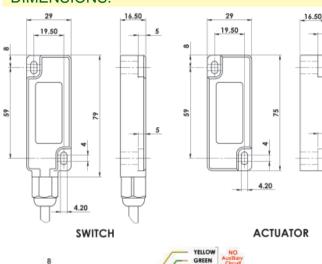
<u>www.idemsafety.com</u>

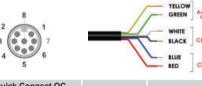
## IDEMAG - Magnetic Non Contact Type: WPR

## FEATURES:

Robust wide fitting suitable for all industry applications. Wide 12mm sensing and high tolerance to misalignment Long life high power switching capability: Heavy Duty 2A Up to: PLe ISO13849-1 2NC 1NO circuits Quick Connect versions available

## **DIMENSIONS:**





M12	8 Way Male Plug 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

### Alternative QC option:



NC1 Pins 1 and 2 NC2 Pins 3 and 4 M12 4 Way Versions Asi compatible Pin out Pin view from switch Standards: ISO14119 EN60947-5-3

### Safety Classification and **Reliability Data:**

Mechanical Reliability B100	3.
ISO13849-1	Up
Safety Data – Annual Usage	8
, ,	M
Heavy Duty Safety Channel 1 NC	Vo
Safety Channel 2 NC	Vo
Safety Channel 3 NO	Vo
Fuse	Int
Contact Release Time	<2
Initial Contact Resistance	<5
Minimum Switched Current	10
Dielectric Withstand	25
Insulation Resistance	10
Recommended Setting Gap	5n
Switching Distance	Sa
(Target to Target)	Sa
Tolerance to Misalignment	5n
Switching Frequency	1.0
Approach Speed	20
Body Material	UL
Operating Temperature	-2
Enclosure Protection	IP
Shock Resistance	ΙE
Vibration Resistance	ΙE
Cable Type	P١
Mounting Bolts	2x

Operating Direction	
	1

	EN60204-1 ISO13849-1 EN62061 UL508						
	3.3 x 10 <sup>6</sup> operations at 100mA load						
	Up to PLe depending upon system architecture						
è	8 cycles per hour/24 hours per day/365 days						
	MTTFd 470 years						
;	Voltage Free: 250Vac 2.0A Max. Rating						
;	Voltage Free: 250Vac 2.0A Max. Rating						
)	Voltage Free: 24Vdc 0.2A Max. Rating						
¢	Internal 2.0A (F) External 1.6A (F) (User)						
¢	<2ms						
	<500 milliohm						
	10Vdc 1mA						
è	100 Mohms						
)	5mm						
è	Sao 8mm Close						
)	Sar 22mm Open						
t	5mm in any direction from 5mm setting gap						
1	1.0Hz maximum						
	200mm/min to 1000mm/sec						
	UL approved polyester						
è	-25C +80C						
1	IP69K (NEMA PW12) IP67 (NEMA 6)						
è	IEC68-2-27 11ms 30g						
2	IEC68-2-6 10-55Hz 1mm						

1mm VC 6 core 6mm OD Conductors 0 25mm<sup>2</sup> M4 Tightening torque 1.0Nm Mounting Position Any

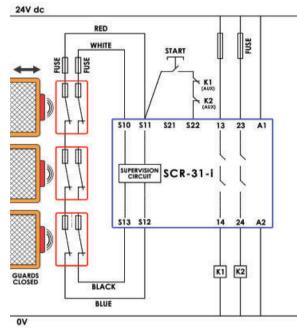
For all IDEM switches the normally closed (NC) circuits are closed when the guard is closed and the actuator is present.



**Magnetic Actuation - Power Series** Switching Tolerance up to 12mm Heavy Duty version 230Vac/24Vdc 2A Will operate with most Safety Relays



## **CONNECTION EXAMPLE:** Magnetic Switches



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

SALES NUMBER	TYPE		CABLE LENGTH		CIRCUITS		
112001	Idemag	Idemag WPR		2M		2NC	
112002	Idemag V	Idemag WPR		5M		2NC	
112003	Idemag V	Idemag WPR		10M		2NC	
112004	Idemag WPR		QC-M12		2NC		
112005	Idemag WPR		2M		2NC	1NO	
112006	Idemag V	NPR	51	N	2NC	1NO	
112007	Idemag WPR		10M		2NC	1NO	
112008	Idemag WPR		QC-M12		2NC	1NO	
112009	Idemag WPR		2M		1NC	1NO	
112010	Idemag WPR		5M		1NC	1NO	
112011	Idemag V	Idemag WPR		10M		1NO	
112012	Idemag V	Idemag WPR		QC-M12		1NO	
-	140101 140102		QC Lead QC Lead		male 5m. male 10m	,	
112300	Plastic 8m	n Spacers	(2) for use	when	1 x Sv	witch	

mounting on Ferrous Materials

112300

**SECTION 12** 

1 x Actuator

www.idemsafety.com