

emas<sup>®</sup>



# SENSORS

## S Series Sensors

- Rapid switching capacity
- Easy to install
- Designed for industrial conditions
- Short circuit and overload protection
- Reverse polarity protection

## Inductive Proximity Switches (3 Wire), IP67



SIM12FM1PC2



SIM12NM1RC2



SIM12FM1PSX



SIM18NM1PC2



SIM30NM1RSX



SIM30FM1PC2



SIQ18FP1NC2

Code	Body Type	Voltage	Sensing Distance	Mounting	Switching Frequency	Connection	Output
SIM12FM1NC2	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	Wire Connection (2m)	NPN-NO
SIM12FM1NSX	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	M12 Connector	NPN-NO
SIM12FM1OC2	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	Wire Connection (2m)	NPN-NC
SIM12FM1OSX	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	M12 Connector	NPN-NC
SIM12FM1PC2	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	Wire Connection (2m)	PNP-NO
SIM12FM1PSX	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	M12 Connector	PNP-NO
SIM12FM1RC2	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	Wire Connection (2m)	PNP-NC
SIM12FM1RSX	Cylinder 12	10-30 V DC	2mm	Flush	800 Hz	M12 Connector	PNP-NC
SIM12NM1NC2	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	Wire Connection (2m)	NPN-NO
SIM12NM1NSX	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	M12 Connector	NPN-NO
SIM12NM1OC2	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	Wire Connection (2m)	NPN-NC
SIM12NM1OSX	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	M12 Connector	NPN-NC
SIM12NM1PC2	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	Wire Connection (2m)	PNP-NO
SIM12NM1PSX	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	M12 Connector	PNP-NO
SIM12NM1RC2	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	Wire Connection (2m)	PNP-NC
SIM12NM1RSX	Cylinder 12	10-30 V DC	4mm	Nonflush	400 Hz	M12 Connector	PNP-NC
SIM18FM1NC2	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	Wire Connection (2m)	NPN-NO
SIM18FM1NSX	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	M12 Connector	NPN-NO
SIM18FM1OC2	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	Wire Connection (2m)	NPN-NC
SIM18FM1OSX	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	M12 Connector	NPN-NC
SIM18FM1PC2	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	Wire Connection (2m)	PNP-NO
SIM18FM1PSX	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	M12 Connector	PNP-NO
SIM18FM1RC2	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	Wire Connection (2m)	PNP-NC
SIM18FM1RSX	Cylinder 18	10-30 V DC	5mm	Flush	800 Hz	M12 Connector	PNP-NC
SIM18NM1NC2	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	Wire Connection (2m)	NPN-NO
SIM18NM1NSX	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	M12 Connector	NPN-NO
SIM18NM1OC2	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	Wire Connection (2m)	NPN-NC
SIM18NM1OSX	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	M12 Connector	NPN-NC
SIM18NM1PC2	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	Wire Connection (2m)	PNP-NO
SIM18NM1PSX	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	M12 Connector	PNP-NO
SIM18NM1RC2	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	Wire Connection (2m)	PNP-NC
SIM18NM1RSX	Cylinder 18	10-30 V DC	8mm	Nonflush	400 Hz	M12 Connector	PNP-NC
SIM30FM1NC2	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	Wire Connection (2m)	NPN-NO
SIM30FM1NSX	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	M12 Connector	NPN-NO
SIM30FM1OC2	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	Wire Connection (2m)	NPN-NC
SIM30FM1OSX	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	M12 Connector	NPN-NC
SIM30FM1PC2	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	Wire Connection (2m)	PNP-NO
SIM30FM1PSX	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	M12 Connector	PNP-NO
SIM30FM1RC2	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	Wire Connection (2m)	PNP-NC
SIM30FM1RSX	Cylinder 30	10-30 V DC	10mm	Flush	400 Hz	M12 Connector	PNP-NC
SIM30NM1NC2	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	Wire Connection (2m)	NPN-NO
SIM30NM1NSX	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	M12 Connector	NPN-NO
SIM30NM1OC2	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	Wire Connection (2m)	NPN-NC
SIM30NM1OSX	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	M12 Connector	NPN-NC
SIM30NM1PC2	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	Wire Connection (2m)	PNP-NO
SIM30NM1PSX	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	M12 Connector	PNP-NO
SIM30NM1RC2	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	Wire Connection (2m)	PNP-NC
SIM30NM1RSX	Cylinder 30	10-30 V DC	15mm	Nonflush	200 Hz	M12 Connector	PNP-NC
SIQ18FP1NC2	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (2m)	NPN-NO
SIQ18FP1NC7	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (7m)	NPN-NO
SIQ18FP1OC2	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (2m)	NPN-NC
SIQ18FP1OC7	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (7m)	NPN-NC
SIQ18FP1PC2	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (2m)	PNP-NO
SIQ18FP1PC7	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (7m)	PNP-NO
SIQ18FP1RC2	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (2m)	PNP-NC
SIQ18FP1RC7	Square 18	10-30V DC	5mm	Flush	800 Hz	Wire Connection (7m)	PNP-NC

## Inductive Proximity Switches (3 Wire), IP67

Code	Body Type	Voltage	Sensing Distance	Mounting	Switching Frequency	Connection	Output
SIQ18NP1NC2	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection(2m)	NPN-NO
SIQ18NP1NC7	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection (7m)	NPN-NO
SIQ18NP1OC2	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection(2m)	NPN-NC
SIQ18NP1OC7	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection (7m)	NPN-NC
SIQ18NP1PC2	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection(2m)	PNP-NO
SIQ18NP1PC7	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection (7m)	PNP-NO
SIQ18NP1RC2	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection(2m)	PNP-NC
SIQ18NP1RC7	Square 18	10-30V DC	8mm	Nonflush	400 Hz	Wire Connection (7m)	PNP-NC



SCM18NP1NC2



SCM30NP1PC2

## Capacitive Proximity Switches (3 Wire), IP65

Code	Body Type	Voltage	Sensing Distance	Mounting	Body Frequency	Connection	Output
SCM18NP1NC2	Cylinder 18	10-30 V DC	2-10mm	Nonflush	Plastic	Wire Connection(2m)	NPN-NO
SCM18NP1OC2	Cylinder 18	10-30 V DC	2-10mm	Nonflush	Plastic	Wire Connection(2m)	NPN-NC
SCM18NP1PC2	Cylinder 18	10-30 V DC	2-10mm	Nonflush	Plastic	Wire Connection(2m)	PNP-NO
SCM18NP1RC2	Cylinder 18	10-30 V DC	2-10mm	Nonflush	Plastic	Wire Connection(2m)	PNP-NC
SCM30NM1NC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	Wire Connection(2m)	NPN-NO
SCM30NM1NSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	M12 Connector	NPN-NO
SCM30NM1OC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	Wire Connection(2m)	NPN-NC
SCM30NM1OSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	M12 Connector	NPN-NC
SCM30NM1PC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	Wire Connection(2m)	PNP-NO
SCM30NM1PSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	M12 Connector	PNP-NO
SCM30NM1RC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	Wire Connection(2m)	PNP-NC
SCM30NM1RSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Metal	M12 Connector	PNP-NC
SCM30NP1NC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	Wire Connection(2m)	NPN-NO
SCM30NP1NSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	M12 Connector	NPN-NO
SCM30NP1OC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	Wire Connection(2m)	NPN-NC
SCM30NP1OSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	M12 Connector	NPN-NC
SCM30NP1PC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	Wire Connection(2m)	PNP-NO
SCM30NP1PSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	M12 Connector	PNP-NO
SCM30NP1RC2	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	Wire Connection(2m)	PNP-NC
SCM30NP1RSX	Cylinder 30	10-30 V DC	3-15mm	Nonflush	Plastic	M12 Connector	PNP-NC

## Photoelectric Proximity Switches (4 Wire), IP50

Code	Body Type	Voltage	Sensing Distance	Operating Type	Response Time	Connection	Output
SPM18DP4DC2	Cylinder 18	10-30 V DC	400mm	Diffuse Reflection	2ms	Wire Connection(2m)	PNP 1NO+1NC
SPM18DP4EC2	Cylinder 18	10-30 V DC	400mm	Diffuse Reflection	2ms	Wire Connection(2m)	NPN 1NO+1NC
SPQ50RP2CC2	Square 50	24-240V AC/DC	7 Metre	Retro Reflection	Max. 20ms	Wire Connection(2m)	Relay Output
SPQ50RP2CSX	Square 50	24-240V AC/DC	7 Metre	Retro Reflection	Max. 20ms	Connector M12*4	Relay Output
SPQ50DP2CC2	Square 50	24-240V AC/DC	1 Metre	Diffuse Reflection	Max. 20ms	Wire Connection(2m)	Relay Output
SPQ50DP2CSX	Square 50	24-240V AC/DC	1 Metre	Diffuse Reflection	Max. 20ms	Connector M12*4	Relay Output
SPB30MP6PC1	Dia 30 mm, Round Shape	12-30 V DC	15 cm	Diffuse Reflection	Max. 300ms	1 Metre Cable	PNP-NO
SPB30MP6PSX	Dia 30 mm, Round Shape	12-30 V DC	15 cm	Diffuse Reflection	Max. 300ms	M12 Connector	PNP-NO
SPB30MP6NC1	Dia 30 mm, Round Shape	12-30 V DC	15 cm	Diffuse Reflection	Max. 300ms	1 Metre Cable	NPN-NO
SPB30MP6NSX	Dia 30 mm, Round Shape	12-30 V DC	15 cm	Diffuse Reflection	Max. 300ms	M12 Connector	NPN-NO
SPB30MP6PC1	Dia 30 mm, Round Shape	12-30 V DC, PLC Control 6 Wired	15 cm	Diffuse Reflection	Max. 300ms	1 Metre Cable	PNP-NO

\*Reflector is included in the price of 40\*60 mm Diffuse Reflection Models.

## Spare Parts

Code	Type	Body Material	Box / Pcs
SPQ50MON1	Square 50 mm Assembly	Metal	1
SPQREF1	Device Reflector 40x60mm	Plastic	1
SPQREF2	Reflector 100x100mm	Plastic	1



SMB31LC2-B15



SMB10LSZ-B15



SMS10RC2-S15



SMS10RSZ-S15

## Magnetic Switch, IP68 -LED models 24V DC, w/o LED 10-30V AC/DC

Code	Body Type	Contact Type	MountingType	Connection	Features	Sensing Distance	Box / Pcs
SMB10LC2-B1*	Rectangular 78 mm	1NC+1NO	Left Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB10LSZ-B1*	Rectangular 78 mm	1NC+1NO	Left Exit	M8*4 Connection		5 mm / 8 mm	1
SMB10RC2-B1*	Rectangular 78 mm	1NC+1NO	Right Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB10RSZ-B1*	Rectangular 78 mm	1NC+1NO	Right Exit	M8*4 Connection		5 mm / 8 mm	1
SMB11LC2-B1*	Rectangular 78 mm	1NC+1NO	Left Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB11LSZ-B1*	Rectangular 78 mm	1NC+1NO	Left Exit	M8*4 Connection	LED	5 mm / 8 mm	1
SMB11RC2-B1*	Rectangular 78 mm	1NC+1NO	Right Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB11RSZ-B1*	Rectangular 78 mm	1NC+1NO	Right Exit	M8*4 Connection	LED	5 mm / 8 mm	1
SMB20LC2-B1*	Rectangular 78 mm	2NC	Left Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB20LSZ-B1*	Rectangular 78 mm	2NC	Left Exit	M8*4 Connection		5 mm / 8 mm	1
SMB20RC2-B1*	Rectangular 78 mm	2NC	Right Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB20RSZ-B1*	Rectangular 78 mm	2NC	Right Exit	M8*4 Connection		5 mm / 8 mm	1
SMB21LC2-B1*	Rectangular 78 mm	2NC	Left Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB21LSZ-B1*	Rectangular 78 mm	2NC	Left Exit	M8*4 Connection	LED	5 mm / 8 mm	1
SMB21RC2-B1*	Rectangular 78 mm	2NC	Right Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB21RSZ-B1*	Rectangular 78 mm	2NC	Right Exit	M8*4 Connection	LED	5 mm / 8 mm	1
SMB30LC2-B1*	Rectangular 78 mm	2NC+NO	Left Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB30LSX-B1*	Rectangular 78 mm	2NC+NO	Left Exit	M12*8 Connection		5 mm / 8 mm	1
SMB30RC2-B1*	Rectangular 78 mm	2NC+NO	Right Exit	Wire Connection (2m)		5 mm / 8 mm	1
SMB30RSX-B1*	Rectangular 78 mm	2NC+NO	Right Exit	M12*8 Connection		5 mm / 8 mm	1
SMB31LC2-B1*	Rectangular 78 mm	2NC+NO	Left Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB31LSX-B1*	Rectangular 78 mm	2NC+NO	Left Exit	M12*8 Connection	LED	5 mm / 8 mm	1
SMB31RC2-B1*	Rectangular 78 mm	2NC+NO	Right Exit	Wire Connection (2m)	LED	5 mm / 8 mm	1
SMB31RSX-B1*	Rectangular 78 mm	2NC+NO	Right Exit	M12*8 Connection	LED	5 mm / 8 mm	1
SMS10LC2-S15	Rectangular 22 mm	1NC+1NO	Left Exit	Wire Connection (2m)		5 mm	1
SMS10LSZ-S15	Rectangular 22 mm	1NC+1NO	Left Exit	M8*4 Connection Wire		5 mm	1
SMS10RC2-S15	Rectangular 22 mm	1NC+1NO	Right Exit	Connection (2m)		5 mm	1
SMS10RSZ-S15	Rectangular 22 mm	1NC+1NO	Right Exit	M8*4 Connection		5 mm	1
SMS11LC2-S15	Rectangular 22 mm	1NC+1NO	Left Exit	Wire Connection (2m)	LED	5 mm	1
SMS11LSZ-S15	Rectangular 22 mm	1NC+1NO	Left Exit	M8*4 Connection	LED	5 mm	1
SMS11RC2-S15	Rectangular 22 mm	1NC+1NO	Right Exit	Wire Connection (2m)	LED	5 mm	1
SMS11RSZ-S15	Rectangular 22 mm	1NC+1NO	Right Exit	M8*4 Connection	LED	5 mm	1
SMS20LC2-S15	Rectangular 22 mm	2NC	Left Exit	Wire Connection (2m)		5 mm	1
SMS20LSZ-S15	Rectangular 22 mm	2NC	Left Exit	M8*4 Connection		5 mm	1

Note 1: SMB10LC2-B1\* code means Actuator and Switch together. Switch code is SMB10LC2, Actuator code is SMB15.

Note 2 : \* Refers to Sensing Distance, If it is 5 , it means 5 mm sensing distance. If it is 8, it means 8 mm sensing distance.



SMS10LC2-S15

## Magnetic Switch, IP68 - LED models 24V DC, w/o LED 10-30V AC/DC

Code	Body Type	Contact Type	Mounting-Type	Connection	Features	Sensing Distance	Box / Pcs
SMS20RC2-S15	Rectangular 22 mm	2NC	Right Exit	Wire Connection (2m)		5 mm	1
SMS20RSZ-S15	Rectangular 22 mm	2NC	Right Exit	M8*4 Connection		5 mm	1
SMS21LC2-S15	Rectangular 22 mm	2NC	Left Exit	Wire Connection (2m)	LED	5 mm	1
SMS21LSZ-S15	Rectangular 22 mm	2NC	Left Exit	M8*4 Connection	LED	5 mm	1
SMS21RC2-S15	Rectangular 22 mm	2NC	Right Exit	Wire Connection (2m)	LED	5 mm	1
SMS21RSZ-S15	Rectangular 22 mm	2NC	Right Exit	M8*4 Connection	LED	5 mm	1
SMS30LC2-S15	Rectangular 22 mm	2NC+NO	Left Exit	Wire Connection (2m)		5 mm	1
SMS30LSX-S15	Rectangular 22 mm	2NC+NO	Left Exit	M12*8 Connection		5 mm	1
SMS30RC2-S15	Rectangular 22 mm	2NC+NO	Right Exit	Wire Connection (2m)		5 mm	1
SMS30RSX-S15	Rectangular 22 mm	2NC+NO	Right Exit	M12*8 Connection		5 mm	1
SMS31LC2-S15	Rectangular 22 mm	2NC+NO	Left Exit	Wire Connection (2m)	LED	5 mm	1
SMS31LSX-S15	Rectangular 22 mm	2NC+NO	Left Exit	M12*8 Connection	LED	5 mm	1
SMS31RC2-S15	Rectangular 22 mm	2NC+NO	Right Exit	Wire Connection (2m)	LED	5 mm	1
SMS31RSX-S15	Rectangular 22 mm	2NC+NO	Right Exit	M12*8 Connection	LED	5 mm	1

Note 1: SMB10LC2-B1\* code means Actuator and Switch together. Switch code is SMB10LC2, Actuator code is SMB15.