




# Proximity magnetic sensors, rectangular

Rectangular			
Types	S series	SPB2 series	SPA1 series
			
Dimensions (mm)	11.5 x 79 x 21.2	25.5 x 85 x 24	16 x 90 x 20
<b>Electrical specifications</b>			
Max. switch. voltage contact	250 VAC [SA / SC 2, SB2 / -S5] 1500 VAC [SA / SC 8] 230 VAC [SS2, SBS2]	250 VAC	24 VDC [output 1 and 2]
Max. switch. current contact	1 A [SS2, SBS2] 3 A [SA2, SC2, SB2, SB2S5, SA8, SC8]	3 A	0.5 A [output 1] 4 A [output 2]
Max. switch. power contact	100 VA [SA / SC 2, SB2 / -S5] 120 VA [SA / SC 8] 60 VA [SS2, SBS2]	100 VA	5 VA [output 1] 100VA [output 2]
Power supply			24 VDC
<b>General specifications</b>			
Operating distance	5 - 32 mm	5 - 30 mm	12 mm
Output connection	PVC cable, 0.5 m (0.24 m Type S5)	Faston [SPB2] 2 m PVC Cable [SPB22MT]	PVC cable, 19 cm pig - Tail
Degree of protection	IP 67	IP 67 [SPB22MT] IP 65 [SPB2]	IP 67
Operating temperature	-25°C to +75°C	-25°C to +75°C	-25°C to +80°C
Housing material	Plastic	Plastic	ABS class V0
<b>References</b>			
Normally open	SA2 SA8		
Normally closed	SC2 SC8		
Change - Over	SS2		
Bistable	SB2 SB2S5	SPB2 SPB22MT	
Bistable CO	SBS2		
Normally closed, 2 outputs			SPA1S2 SPA1S3

# Proximity magnetic sensors, rectangular

## Rectangular

### Types

### M and MS series

### MM series



Dimensions (mm)

8.3 x 37 x 16

6.1 x 23.5 x 14 [A6]  
7 x 27 x 11 [A3, S1]

### Electrical specifications

Max. switch. voltage contact

100 VAC [MS1]  
230 VAC [MSA1]  
500 VAC [MA3, MC3]

100 VAC [S1, A6]  
500 VAC [A3]

Max. switch. current contact

0.25 A [MS1]  
0.5 A [MA3, MC3]  
0.75 A [MSA1]

0.25 A [S1]  
0.5 A [A3, A6]

Max. switch. power contact

5 VA [MS1]  
10VA [MSA1, MA3, MC3]

5 VA [S1]  
10 VA [A3, A6]

### General specifications

Operating distance

7 - 35 mm

10 - 40 mm

Output connection

PVC cable, 0.5 m  
(2 m, Type MSA1)

PVC cable [A3, S1]  
Twin lead cable [A6]

Degree of protection

IP 67

IP 67

Operating temperature

-25°C to +75°C

-25°C to +75°C

Housing material

Plastic

Plastic

### References

Normally open

**MSA1**  
**MA3**

**MMA3**  
**MMA6**

Normally closed



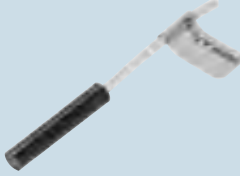
**MC3**

Change - Over

**MS1**

**MMS1**

# Proximity magnetic sensors, cylindrical

Cylindrical			
Types	FM... series	FMM... series	FMMP... series
			
Dimensions (mm)	Ø 9.3 [A3, C3, S1] M10 x 0.75 [A3S5, A6] M12 x 1 [C3S1, A9S1]	M8 x 1	Ø 6 x 25 [L25] Ø 6 x 33 [L33] Ø 6 x 38 [L38]
<b>Electrical specifications</b>			
Max. switch. voltage contact	100 VAC [S1, A6] 230 VAC [A9S1] 500 VAC [A3, C3, A3S5, C3S1]	100 VAC [A6, S1] 500 VAC [A3]	140 VAC
Max. switch. current contact	0.25 A [S1] 0.5 A [A3, C3, A6, A3S5, C3S1] 3 A [A9S1]	0.25 A [S1] 0.5 A [A3, A6]	1 A
Max. switch. power contact	5 VA [A3, C3, A3S5, C3S1] 60 VA [A9S1] 100 VA [S1, A6]	5 VA [S1] 10 VA [A3, A6]	10 VA
Max carry current			1.2 A
<b>General specifications</b>			
Operating distance	5 - 36 mm	8 - 27 mm	> 8 mm
Output connection	PVC cable 0.5 m for Ø 9.3 2 m for M10 and M12	PVC cable, 2 m	Twin lead cable, 0.5 m
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25°C to +75°C	-25°C to +70°C	-20°C to +75°C
Housing material	Plastic [A3, C3, S1] Nickel plated brass [A6] Brass [A3S5, C3S1, A9S1]	Stainless steel [A3, S1] Nickel plated brass [A6]	Plastic
<b>References</b>			
Normally open	<b>FMA3</b> <b>FMA3S5</b> <b>FMA6</b> <b>FMA9S1</b>	<b>FMMA3</b> <b>FMMA6</b>	<b>FMMPA7L25</b> <b>FMMPA7L33</b> <b>FMMPA7L38</b>
Normally closed	<b>FMC3</b> <b>FMC3S1</b>		
Change - Over	<b>FMS1</b>	<b>FMMS1</b>	

# Proximity magnetic sensors, cylindrical

## Cylindrical

Types **FMP... series** **FS... series** **FSLP... series** **FSM... series**



Dimensions (mm)

M12 x 1 x 100

Ø 13.5 [A2, A8, C2, C8, S2]  
M10 x 1.25 [A2S3, S2S1]  
M12 x 1 [A2S4, S2S4]  
M16 x 1.5 [B2]

Ø 16

M12 x 1 [A2, A7, S2]  
M16 x 1 [S2S2AT]

## Electrical specifications

Max. switch. voltage contact

120 VAC / DC [C7]  
175 VDC, 120 VAC [S1]  
200 VDC, 140 VAC [A7]  
230 VAC / DC [A9, C9, A9S1]  
250 VAC / DC [B2]

230 VAC [S2, S2S1, S2S4]  
250 VAC [A2, B2, C2,  
A2S3, A2S4]  
1500 VAC [A8, C8]

100 VAC [A7]  
250 VAC [B2]

24 VDC [A7]  
230 VAC [S2, S2S2AT]  
250 VAC [A2]

Max. switch. current contact

0.25 A [S1]  
0.5 A [C7]  
1 A [A7]  
3 A [B2, A9, C9, A9S1]

1 A [S2, S2S4, S2S1]  
3 A [A2, B2, C2, A8, C8,  
A2S3, A2S4]

0.4 A [A7]  
3 A [B2]

0.5 A [S2S2AT]  
1 A [S2]  
3 A [A2]  
50 mA [A7]

Max. switch. power contact

5 VA [S1]  
10 VA [A7, C7]  
60 VA [A9, C9, A9S1]  
120 VA [B2]

60 VA [S2S1, S2S4, S2]  
100 VA [A2, B2, C2,  
A2S3, A2S4]  
120 VA [A8, C8]

10 VA [A7]  
120 VA [B2]

30 VA [S2S2AT]  
60 VA [S2]  
100 VA [A2]  
(A7 negligible)

## General specifications

Operating distance

7 - 26 mm

3 - 32 mm

18 - 25 mm (front);  
>10 - >15 mm (side)

2 - 19 mm

Output connection

PVC cable, 2 m

PVC cable, 2 m  
0.5 m for Ø 13.5

PVC cable, 2 m

Silicone cable, 2 m [A7]  
Silicone cable, 0.5 m [S2S2AT]  
PVC cable, 2 m [A2, S2]

Degree of protection

IP 67

IP 67

IP 67

IP 67

Operating temperature

-25°C to +75°C

-25°C to +75°C

-30°C to +80°C

-25°C to +75°C [A2, A7, S2]  
-20°C to +150°C [S2S2AT]

Housing material

Plastic

Plastic [A2, A8, C2, C8,  
S2, B2]  
Brass [A2S3 / S4, S2S1 / S4]

Plastic

Brass [S2S2, S2S2AT]  
Nickel plated brass [A2,  
A7, S2]

## References

Normally open

FMPA7 [black]  
FMPA9 [black]  
FMPA9S1 [black]

FSA2  
FSA8  
FSA2S32MT  
FSA2S42MT

FSLPA7

FSMA2  
FSMA7

Normally closed

FMPC7 [red]  
FMPC9 [red]

FSC2  
FSC8

Change - Over

FMPS1 [blue]

FSS2  
FSS2S12MT  
FSS2S42MT

FSMS2  
FSMS2S2AT

Bistable

FMPB2 [grey]

FSB22MT

FSLPB2

# Proximity magnetic sensors, slot

Slot		
Types	ISY series	IM series
		

Dimensions (mm)	10 x 45 x 37	7 x 28 x 18.5
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## Electrical specifications

Max. switch. voltage contact	100 VAC [S1] 500 VAC [C3]	100 VAC [S1] 500 VAC [C3]
Max. switch. current contact	0.25 A [S1] 0.5 A [C3]	0.25 A [S1] 0.5 A [C3]
Max. switch. power contact	5 VA [S1] 10 VA [C3]	5 VA [S1] 10 VA [C3]

## General specifications

Output connection	PVC cable, 0.5 m	PVC cable, 0.5 m
Degree of protection	IP 67	IP 67
Operating temperature	-25°C to +75°C	-25°C to +75°C
Housing materials	Plastic	Plastic

## References

Normally closed	ISYC3	IMC3
Change - Over	ISYS1	IMS1

## Types

Magnetic units CL series			
Shapes	Rectangular	Trapezoidal	Cylindrical
			

## General specifications

Minimum separation:	Dimensions (mm)	References		
10	25 x 14 x 8	CL1		
20	44.5 x 12 x 9	CL2		
30	59 x 18 x 9	CL3		
50	76 x 25 x 18	CL4		
Not mandatory			Dimensions (mm)	References
			90 x 31 x 22.5	CL90
			Ø 9.3 x 32	CL10
			Ø 13.5 x 65	CL11
			Ø 18 x 6	CL18
			Ø 23 x 9	CL23
			Ø 31 x 10	CL31
			Ø 20 x 10	CL20S1
			Ø 22.1 x 11.3	CL20S3