

Технические характеристики

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Magnetic sensors

Our range

The measurement of proximity and position, in addition to displacement of objects, is essential in many different applications, including valve position, level detection, process control, machine control, and safety.

Carlo Gavazzi offers a wide range of magnetic sensors that are well-suited for many applications in the field of automation, where high reliability and cost optimized solutions are required.

In addition, we have the ability to modify or adapt any of our sensors, or even to develop a custom sensor, to solve any unique application. In a word - flexibility.

Carlo Gavazzi magnetic sensors feature high versatility and a wide range of housing shapes and materials, for use in countless applications fixtures.

Our thirty-year commitment in the design and production of position and proximity sensors has been marked by our engagement to modifying any sensor to fit a customer's specific requirements. We can customize materials, shape, connections and more, to meet any request.

Just let us know your needs.



Keyword: Flexibility

Proximity

The proximity switches are suitable for non-contact position detection for a wide range of applications. They are able to detect objects through painted metallic surfaces, stainless steel, aluminum, plastic and wood. Available in different materials and in several housing shapes.

Slot

A slot body is designed to detect the presence of a vane or tab passing through the sensing slot. The available families (ISY, IMI) differ from shape and dimensions, offering a very high quality level of performance and safety.

Flux

The flux meter (FLM) is a magnetic sensor for horizontal mounting that is activated by the flux of the liquid to be detected. The liquid pressure switches the output.

Level

A wide range level sensors offers reliable and durable solutions for all liquid environments.

Atex

Some proximity and level sensors are certified for use in explosive environments. The encapsulated versions are in accordance with the EN 60079-0 and EN 60079-18 standard. The intrinsically safe versions are in accordance with the EN 60079-0 and EN 60079-11.

Pick up

The pick up sensors (PA2PK) are designed for applications where gear speed measurement is required. They do not need any power supply.

Market applications

Lift (Proximity)

Our proximity magnetic switches are used in lift market for many applications such including cabin leveling, speed monitoring, and cabin presence detection. Accuracy and

speed combined with availability of various output functions ensure a signal suitable also for economical high speed elevator control.



Food & Beverage (Safety)

The moving parts of automatic filling and sealing machines for food and beverages must be protected by safety gates. In Food & Beverage market, where increased sanitary requirements

call for cleaning cycles of the machine, safety magnetic sensors are often preferred to mechanical switches.



Gas stations (Atex)

The ATEX proximity sensors are positioned on the gas pump to detect the presence of the nozzle. While the nozzle is properly stored the pump is deactivated. When the nozzle

is removed by the user, the sensor activates the pump. We also provide level sensors to control the tank fuel filling, according to ATEX directive.



Agriculture (Pick up)

Applications for heavy machinery such as farming machines and trenching equipment often require a customized sensor to monitor gear speed. Modification requests can include

customized housing diameter and materials. We can also modify sensing distance and operating temperature ranges.



Rooftops (Flux)

The FLMA1S1 is a magnetic sensor used to monitor the flux of the cooling circuit on rooftops. To work correctly, the flux of the liquid must push the float against its spring: when the flux

is sufficiently high to move the float a fixed distance, the sensor switches on, when the flux decreases under the desired value the heating control system is warned by the sensor switch.

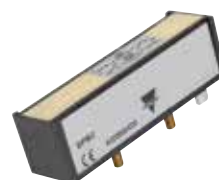


Magnetic sensors

Selection guide

Proximity magnetic sensors

Housing	Rectangular	Rectangular	Rectangular
Operating distance	5 - 32 mm	12 mm	5 - 30 mm
Dimensions (mm)	79 x 21.2 x 11.5	90 x 20 x 16	85 x 24 x 25.5



Family	S series	SPA1 series	SPB2 series
Material	Plastic	ABS class V0	Plastic
Connection	PVC cable	PVC cable with connector	Plug (SPB2) Cable (SPB22MT)
Degree of protection	IP 67	IP 67	IP 67 (SPB22MT) IP 65 (SPB2)
Operating temperature	-25° to +75°C (-13° to +167°F)	-25° to +80°C (-13° to +176°F)	-25° to +75°C (-13° to +167°F)
Approvals / Marks	CE	CE	CE

References

Normally open	SA2, SA8		
Normally closed	SC2, SC8	SPA1S2, SPA1S3	
Change-over	SS2		
Bistable	SB2, SB2S5		
Bistable CO	S.BS.2		SPB2, SPB22MT

Housing	Rectangular	Rectangular	Rectangular
Operating distance	7 - 35 mm	10 - 35 mm	14 - 40 mm
Dimensions (mm)	37 x 16 x 8.3	27 x 11 x 7	23.5 x 14 x 6.1



Family	M and MS series	MM series	MM series
Material	Plastic	Plastic	Plastic
Connection	PVC cable	PVC cable	Twin lead cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +75°C (-13° to +167°F)	-25° to +75°C (-13° to +167°F)	-25° to +75°C (-13° to +167°F)
Approvals / Marks	CE	CE	CE

References

Normally open	MSA1, MA3	MMA3	MMA6
Normally closed	MC3		
Change-over	MS1	MMS1	

Proximity magnetic sensors

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	7 - 25 mm	15 - 36 mm	20 mm
Dimensions (mm)	Ø 9.3	M10 x 0.75	M12 x 1



Family	FM series	FM series	FM series
Material	Plastic	Nickel plated brass	Brass
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Approvals / Marks	CE	CE	CE

References

Normally open	FMA3	FMA6	FMA9S1
Normally closed	FMC3		
Bistable	FMS1		

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	5 - 23 mm	> 8 mm	> 8 mm
Dimensions (mm)	M12 x 1	Ø 6 x 25	Ø 6 x 33



Family	FM series	FMMP series	FMMP series
Material	Brass	Plastic	Plastic
Connection	PVC cable	Twin lead cable	Twin lead cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-20° to +75°C (-4° to +167°F)	-20° to +75°C (-4° to +167°F)
Approvals / Marks	CE	CE	CE

References

Normally open	FMA3S5	FMMPA7L25	FMMPA7L33
Normally closed	FMC3S1		

Magnetic sensors

Selection guide

Proximity magnetic sensors

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	> 8 mm	8 - 28 mm	8 - 28 mm
Dimensions (mm)	Ø 6 x 38	M8 x 1	M8 x 1



Family	FMMP series	FMM series	FMM series
Material	Plastic	Stainless steel	Nickel plated brass
Connection	Twin lead cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-20° to +75°C (-4° to +167°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Approvals / Marks	CE	CE	CE

References

Normally open	FMMPA7L38	FMMA3	FMMA6
Change-over		FMS1	

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	7 - 26 mm	3 - 12 mm	7 - 12 mm
Dimensions (mm)	M12 x 1	Ø 13.5	M10 x 1.25



Family	FMP series	FS series	FS series
Material	Plastic	Plastic	Brass
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +75°C (-13° to +167°F)
Approvals / Marks	CE	CE	CE

References

Normally open	FMPA7, FMPA9, FMPA9S1	FSA2, FSA8	FSA2S32MT
Normally closed	FMPC7, FMPC9	FSC2, FSC8	
Change-over	FMP51	FSS2	FSS2S12MT
Bistable	FMPB2		

Proximity magnetic sensors

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	7 - 12 mm	11 - 32 mm	Front 25 mm / Side >15
Dimensions (mm)	M12 x 1	M16 x 1.5	Ø 16 x 110



Family	FS series	FS series	FSLP series
Material	Brass	Plastic	Plastic
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +75°C (-13° to +167°F)	-25° to +75°C (-13° to +167°F)	-30° to +80°C (-22° to +176°F)
Approvals / Marks	CE	CE	CE

References

Normally open	FSA2S42MT		FSLPA7
Change-over	FSS2S42MT		
Bistable		FSB22MT	

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	Front 18 mm / Side >10	2 - 19 mm	≥ 5 - 8 mm
Dimensions (mm)	Ø 16 x 110	M12 x 1	M16 x 1



Family	FSLP series	FSM series	FSM series
Material	Plastic	Nickel plated brass	Brass
Connection	PVC cable	PVC cable (FSMA2, FSMS2) Silicone cable (FSMA7)	Silicone cable
Degree of protection	IP 67	IP 67	IP67
Operating temperature	-30° to +80°C (-22° to +176°F)	-25° to +75°C (-13° to +167°F)	-20° to +150°C (-4° to +302°F)
Approvals / Marks	CE	CE	CE

References

Normally open		FSMA2, FSMA7	
Change-over		FSMS2	FSMS2S2AT
Bistable	FSLPB2		

Magnetic sensors

Selection guide

Slot, flux and level sensors

Housing	Slot	Slot	Cylindrical - Flux
Operating distance	-	-	5 mm
Dimensions (mm)	45 x 37 x 10	28 x 18.5 x 7	Ø 20



Family	ISY series	IM series	FLM series
Material	Plastic	Plastic	Stainless steel, plastic float
Connection	PVC cable	PVC cable	PVC cable ended with 6.35 mm female faston
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +75°C (-13° to +167°F)	-25° to +75°C (-13° to +167°F)	-30° to +105°C (-22° to +221°F)
Approvals / Marks	CE	CE	CE

References

Normally open			FLMA1S1
Normally closed	ISYC3	IMC3	
Change-over	ISYS1	IMS1	

Housing	Cylindrical - Level	Cylindrical - Level	Cylindrical - Level
Max pressure	20 Kg/cm ²	10 Kg/cm ²	10 Kg/cm ²
Dimensions (mm)	Ø 53	Ø 28	Ø 28



Family	ILM series	ILMM series	ILMM series
Material	Stainless steel	Stainless steel	Stainless steel
Connection	Silicone cable	XLPE cable	XLPE cable
Degree of protection	IP 67	IP 68 (cable output IP 67)	IP 68 (cable output IP 67)
Operating temperature	-25° to +120°C (-13° to +248°F)	10° to +120°C (-14° to +248°F)	-10° to +200°C (-14° to +392°F)
Approvals / Marks	CE	CE, UL	CE, UL

References

NO or NC *	ILM2, ILM8	ILMM5, ILMM590	ILMM5ATS1
Normally closed			ILMM5S2AT
Change-over	ILMS2		

* NO or NC (Normally open or normally closed) : Reversible output function by float overturning

Level sensors

Housing	Cylindrical - Level	Cylindrical - Level	Cylindrical - Level
Max pressure	10 Kg/cm ²	0.6 Kg/cm ²	2 Kg/cm ²
Dimensions (mm)	Ø 28	Ø 44	Ø 17.5



Family	ILMM series	ILSP series	ILMPU series
Material	Stainless steel	Plastic	Non toxic polypropylene
Connection	XLPE cable	Silicone cable	XLPE cable
Degree of protection	IP 68 (cable output IP 67)	IP 68 (cable output IP 67)	IP 68 (cable output IP 67)
Operating temperature	-20° to +120°C (-4° to +248°F)	-25° to +100°C (-13° to +212°F)	-20° to +80°C (-4° to +176°F)
Approvals / Marks	CE, UL	CE	CE, UL

References

Normally open	ILMM5S1		
Normally closed	ILMM5S2		
Change-over		ILSPS2	
NO or NC *		ILSP2, ILSP8	ILMPU5

Housing	Cylindrical - Level	Cylindrical - Level	Cylindrical - Level
Max pressure	2 Kg/cm ²	100 Kg/cm ²	2 Kg/cm ²
Dimensions (mm)	Ø 31	Ø 45	Ø 25



Family	ILMU series	ILU series	ILMP series
Material	Non toxic polypropylene	Non toxic polypropylene	Non toxic polypropylene
Connection	PVC cable	Silicone cable	PVC cable
Degree of protection	IP 68 (cable output IP 67)	IP 68 (cable output IP 67)	IP 68 (cable output IP 67)
Operating temperature	-20° to +80°C (-4° to +176°F)	-25° to +100°C (-13° to +212°F)	-20° to +80°C (-4° to +176°F)
Approvals / Marks	CE, UL	CE	CE, UL

References

Normally open		ILU2, ILU8	
Change-over		ILUS2	
NO or NC *	ILMU5		ILMP5, ILMP5P

* NO or NC (Normally open or normally closed) : Reversible output function by float overturning

Magnetic sensors

Selection guide

Safety magnetic sensors

Housing	Rectangular	Rectangular	Rectangular
Operating distance	10 mm	10 mm	20 mm
Dimensions (mm)	88 x 25 x 13	88 x 25 x 13	88 x 25 x 13



Family	SMS	SMS	SMS
Material	Plastic	Plastic	Plastic
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	4	4	4
Approvals / Marks	CE	CE, UL	CE

References

Safety 1 NO + 1 NC	SMS01	SMSAP11AA02M	SMS02, SMS02LD, SMS02S1
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Housing	Rectangular	Rectangular	Rectangular
Operating distance	20 mm	20 mm	20 mm
Dimensions (mm)	88 x 25 x 13	88 x 25 x 13	88 x 25 x 13



Family	SMS	SMS	SMS
Material	Plastic	Plastic	Plastic
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	4	4	4
Approvals / Marks	CE, UL	CE	CE, UL

References

Safety 1 NO + 1 NC	SMSAP11AB02M		
Safety 2 NO		SMS03	SMSAP20AF02M
Safety 2 NO + Auxiliary 1 NC		SMS03NC	SMSAP20AG02M

Safety magnetic sensors

Housing	Rectangular	Rectangular
Operating distance	20 mm	20 mm
Dimensions (mm)	88 x 25 x 13	88 x 25 x 13



Family	SMS	SMS
Material	Plastic	Plastic
Connection	0.3 m cable + M12 4-pole connector	0.3 m cable + M12 4-pole connector
Degree of protection	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	4	4
Approvals / Marks	CE	CE, UL

References

Safety 2 NO	SMS03+CM1A4/03M	SMSAP20AF03DCP
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Housing	Rectangular	Rectangular
Operating distance	20 mm	20 mm
Dimensions (mm)	88 x 25 x 13	88 x 25 x 13



Family	SMS	SMS
Material	Plastic	Plastic
Connection	PVC cable	PVC cable
Degree of protection	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	2	2
Approvals / Marks	CE	CE

References

Safety 1 NO	SMS10	
Safety 1 NO + Auxiliary 1 NC		SMS10NC, SMS10NCCM1

Magnetic sensors

Selection guide

Safety magnetic sensors

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	15 mm	15 mm	15 mm
Dimensions (mm)	M18 x 1	M18 x 1	M18 x 1



Family	SMS	SMS	SMS
Material	Plastic	Plastic	Stainless steel
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	4	4	4
Approvals / Marks	CE	CE, UL	CE

References

1 NO + 1 NC	SMSA2P02, SMSA2P02LD	SMS2P11AJ02M	SMSA2M02
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Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	15 mm	16 mm	16 mm
Dimensions (mm)	M30 x 1.5	M18 x 1	M18 x 1



Family	SMS	SMS	SMS
Material	Plastic	Plastic	Stainless steel
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	4	3	3
Approvals / Marks	CE	CE	CE

References

1 NO + 1 NC	SMSA3P02		
1 NO		SMSA2P10	SMSA2M10
2 NO		SMSA2P30	

Safety magnetic sensors

Housing	Cylindrical	Cylindrical	Cylindrical
Operating distance	16 mm	16 mm	16 mm
Dimensions (mm)	M30 x 1.5	M18 x 1	M30 x 1.5



Family	SMS	SMS	SMS
Material	Plastic	Plastic	Plastic
Connection	PVC cable	PVC cable	PVC cable
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Safety category	3	4	4
Approvals / Marks	CE	CE	CE

References

2 NO	SMSA3P30	SMSA2P03	SMSA3P03
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Magnetic sensors

Selection guide

Atex certified sensors

Housing	Cylindrical	Cylindrical
Operating distance	8 - 30 mm	-
Dimensions (mm)	pg 13.5	45 x 55



Family	FSQ series - Encapsulated	ILM series - Encapsulated
Material	AISI 303 stainless steel	AISI 316 stainless steel
Connection	Silicone cable (FSQA2B01SLEX) Halogen free PUR (FSQA2HFEX)	Silicone cable (ILMA2SSLEX) PVC cable (ILMS2SEX)
Degree of protection	IP 67 (FSQA2B01SLEX) IP 66 (FSQA2HFEX)	IP 68
Operating temperature	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)
Approvals / Marks	CE, ATEX	CE, ATEX

References

Normally open	FSQA2B01SLEX, FSQA2HFEX	ILMA2CSLEX
Change-over		ILMS2CEX

Housing	Spherical	Rectangular
Operating distance	-	7 - 30 mm
Dimensions (mm)	Ø 53	37 x 16 x 8.3



Family	ILM series - Encapsulated	MQ series - Encapsulated
Material	AISI 316 stainless steel	Autoextinguishing polypropylene
Connection	Silicone cable (ILMA2SSLEX) PVC cable (ILMS2SEX)	PVC cable
Degree of protection	IP 68	IP 67
Operating temperature	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)
Approvals / Marks	CE, ATEX	CE, ATEX

References

Normally open	ILMA2SSLEX	
Normally closed		MQC1EX
Change-over	ILMS2SEX	

Atex certified sensors

Housing	Rectangular	Cylindrical
Operating distance	10 - 35 mm	-
Dimensions (mm)	37 x 16 x 8.3	45 x 55



Family	MQ series - Encapsulated	ILM series - Intrinsically safe
Material	Autoextinguishing polypropylene	AISI 316 stainless steel
Connection	PVC cable	Silicone cable (ILMA0CSLEX) PVC cable (ILMSOCEX)
Degree of protection	IP 67	IP 68
Operating temperature	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)
Approvals / Marks	CE, ATEX	CE, ATEX

References

Normally open	MQA1EX	ILMA0CSLEX
Change-over	MQS1EX	ILMSOCEX

Housing	Spherical	Rectangular
Operating distance	-	10 - 35 mm
Dimensions (mm)	Ø 53	37 x 16 x 8.3



Family	ILM series - Intrinsically safe	MQ series - Intrinsically safe
Material	AISI 316 stainless steel	Autoextinguishing polypropylene
Connection	Silicone cable (ILMA0SSLEX) PVC cable (ILMSOSEX)	PVC cable
Degree of protection	IP 68	IP 67
Operating temperature	-20° to +60°C (-4° to +140°F)	-20° to +60°C (-4° to +140°F)
Approvals / Marks	CE, ATEX	CE, ATEX

References

Normally open	ILMA0SSLEX	MQA0EX
Change-over	ILMSOSEX	

Magnetic sensors

Selection guide

Magnets

Housing	Rectangular	Rectangular	Cylindrical
Dimensions (mm)	88 x 25 x 13	88 x 25 x 13	Ø 25.1 x 9.3



Family	CLS series	CLS series	CLS series
Material	Plastic	Plastic	Plastic
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Approvals / Marks	CE	CE, UL	CE

References

	CLS	CLSD88PM0	CLSA2
Housing	Cylindrical	Cylindrical	Cylindrical
Dimensions (mm)	Ø 25.1 x 9.3	Ø 25.1 x 9.3	Ø 30 x 16



Family	CLS series	CLS series	CLS series
Material	Stainless steel	Plastic	Plastic
Degree of protection	IP 67	IP 67	IP 67
Operating temperature	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)	-25° to +70°C (-13° to +158°F)
Approvals / Marks	CE	CE, UL	CE

References

	CLSA2M	CLSA25PC0	CLSA3
Housing	Rectangular	Rectangular	Rectangular
Dimensions (mm)	14 x 25 x 8	12 x 44.5 x 9	18 x 59 x 9



Family	CL series	CL series	CL series
Housing material	Plastic	Plastic	Plastic
Magnetic material	Alnico	Alnico	Alnico
Min. distance bet. two magnets	10 mm	20 mm	30 mm

References

	CL1	CL2	CL3
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Magnets

Housing	Rectangular	Cylindrical	Cylindrical
Dimensions (mm)	25 x 76 x 10	Ø 9.3 x 32	Ø 13.5 x 65



Family	CL series	CL series	CL series
Housing material	Plastic	Plastic	Plastic
Magnetic material	Alnico	Alnico	Alnico
Min. distance bet. two magnets	50 mm	Not mandatory	Not mandatory

References

CL4

CL10

CL11

Housing	Cylindrical	Cylindrical	Cylindrical
Dimensions (mm)	Ø 18 x 6	Ø 20 x 10.5	Ø 22.1 x 20.5



Family	CL series	CL series	CL series
Housing material	-	-	Plastic
Magnetic material	Ferrite	Ferrite	Ferrite
Min. distance bet. two magnets	Not mandatory	Not mandatory	Not mandatory

References

CL18

CL20S1

CL20S3

Housing	Cylindrical	Cylindrical	Trapezoidal
Dimensions (mm)	Ø 23 x 9	Ø 31 x 10	31 x 90 x 22.5



Family	CL series	CL series	CL series
Housing material	-	-	Plastic
Magnetic material	Ferrite	Ferrite	Alnico
Min. distance bet. two magnets	Not mandatory	Not mandatory	Not mandatory

References

CL23

CL31

CL90

Magnetic sensors

Selection guide

Accessories for lift market

Type	Jaw	Jaw	Jaw
Dimensions (mm)	114 x 20.5 x 14	165 x 20.5 x 14	267 x 20.5 x 14



Family	AJL series	AJL series	AJL series
Material	ABS v0	ABS v0	ABS v0
Operating temperature	-25° to +75°C / -13° to +167°F	-25° to +75°C / -13° to +167°F	-25° to +75°C / -13° to +167°F
Approvals / Marks	CE	CE	CE

References

AJL100M12 **AJL150M12** **AJL250M12**

Type	Support	Magnets	Magnets
Dimensions (mm)	Ø 12	100 x 15 x 6	150 x 15 x 6



Family	ASD series	AML series	AML series
Material	ABS v0	Plastoferrite	Plastoferrite
Operating temperature	-25° to +75°C / -13° to +167°F	-25° to +75°C / -13° to +167°F	-25° to +75°C / -13° to +167°F
Approvals / Marks	CE	CE	CE

References

ASD12M12 **AML100M12** **AML150M12**




Type	Magnets	Magnets
Dimensions (mm)	200 x 15 x 6	300 x 15 x 6



Family	AML series	AML series
Material	Plastoferrite	Plastoferrite
Operating temperature	-25° to +75°C / -13° to +167°F	-25° to +75°C / -13° to +167°F
Approvals / Marks	CE	CE

References

AML200M12 **AML300M12**

Pick up sensors			
Housing	Pick up	Pick up	Pick up
Operating distance	< 2 mm	< 2 mm	< 2 mm
Dimensions (mm)	M20 x 1.5	M20 x 1.5	M20 x 1.5
			
Family	PA2PK series	PA2PK series	PA2PK series
Material	Nylon with 30% glass fibre	Nylon with 30% glass fibre	Nylon with 30% glass fibre
Body length	60 mm	70 mm	107 mm
Cable length	400 mm	400 mm	385 mm
Connection	AMP connector	AMP connector	AMP connector
Degree of protection	IP 65	IP 65	IP 65
Operating temperature	-40° to +130°C (-40° to +266°F)	-40° to +130°C (-40° to +266°F)	-40° to +130°C (-40° to +266°F)
Approvals / Marks	CE	CE	CE
References			
Pulse	PA2PKF45T60	PA2PKF45T70	PA2PKF45T107

Magnetic sensors

Type selection

Type number	Oper. dist. (mm)	Dimensions (mm)	Contact ratings	Operating temperature	Output
Proximity magnetic sensors - rectangular - plastic housing					
SA2	10 - 32	79 x 21.2 x 11.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NO
SA8	10 - 32	79 x 21.2 x 11.5	1500 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NO
SC2	9 - 28	79 x 21.2 x 11.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NC
SC8	9 - 28	79 x 21.2 x 11.5	1500 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NC
SS2	10 - 32	79 x 21.2 x 11.5	230 VAC, 1 A	-25° to +75°C (-13° to +167°F)	CO
SB2	8 - 30	79 x 21.2 x 11.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
SB2S5	8 - 30	79 x 21.2 x 11.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
S.BS.2	5 - 28	79 x 21.2 x 11.5	230 VAC, 1 A	-25° to +75°C (-13° to +167°F)	Bistable CO
SPA1S2	12	90 x 20 x 16	24 VDC, 4 A/0.5 A	-25° to +80°C (-13° to +176°F)	NC
SPA1S3	12	90 x 20 x 16	24 VDC, 4 A/0.5 A	-25° to +80°C (-13° to +176°F)	NC
SPB2	5 - 30	85 x 24 x 25.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
SPB22MT	5 - 30	85 x 24 x 25.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
MSA1	10 - 35	37 x 16 x 8.3	230 VAC, 0.75 A	-25° to +75°C (-13° to +167°F)	NO
MA3	10 - 35	37 x 16 x 8.3	500 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NO
MC3	7 - 30	37 x 16 x 8.3	500 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NC
MS1	10 - 35	37 x 16 x 8.3	100 VAC, 0.25 A	-25° to +75°C (-13° to +167°F)	CO
MMA3	10 - 35	27 x 11 x 7	500 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NO
MMS1	10 - 35	27 x 11 x 7	100 VAC, 0.25 A	-25° to +75°C (-13° to +167°F)	CO
MMA6	14 - 40	23.5 x 14 x 6.1	100 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NO
Proximity magnetic sensors - cylindrical - plastic housing					
FMA3	9 - 25	∅ 9.3	500 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NO
FMC3	7 - 20	∅ 9.3	500 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NC
FMS1	9 - 25	∅ 9.3	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	CO
FMMPA7L25	> 8	∅ 6 x 25	140 VAC, 200 VDC, 1 A	-20° to +75°C (-4° to +167°F)	NO
FMMPA7L33	> 8	∅ 6 x 33	140 VAC, 200 VDC, 1 A	-20° to +75°C (-4° to +167°F)	NO
FMMPA7L38	> 8	∅ 6 x 38	140 VAC, 200 VDC, 1 A	-20° to +75°C (-4° to +167°F)	NO
FMPA7	26	M12 x 1	140 VAC, 200 VDC, 1 A	-25° to +75°C (-13° to +167°F)	NO
FMPA9	7	M12 x 1	230 VAC/DC, 3 A	-25° to +75°C (-13° to +167°F)	NO
FMPA9S1	17	M12 x 1	230 VAC/DC, 3 A	-25° to +75°C (-13° to +167°F)	NO
FMPC7	23	M12 x 1	120 VAC/DC, 0.5 A	-25° to +75°C (-13° to +167°F)	NC
FMPC9	26	M12 x 1	230 VAC/DC, 3 A	-25° to +75°C (-13° to +167°F)	NC
FMPS1	20	M12 x 1	120 VAC, 175 VDC, 0.25 A	-25° to +75°C (-13° to +167°F)	CO
FMPB2	15	M12 x 1	250 VAC/DC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
FSA2	7 - 12	∅ 13.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NO
FSA8	7 - 12	∅ 13.5	1500 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NO
FSC2	3 - 12	∅ 13.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NC
FSC8	3 - 12	∅ 13.5	1500 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NC
FSS2	7 - 12	∅ 13.5	230 VAC, 1A	-25° to +75°C (-13° to +167°F)	CO
FSB22MT	11 - 32	M16 x 1.5	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	Bistable
FSLPA7	front: 25, side: >15	∅ 16 x 110	100 VAC, 0.4 A	-30 to +80°C (-22° to +176°F)	NO
FSLPB2	front: 18, side: >10	∅ 16 x 110	250 VAC, 3 A	-30 to +80°C (-22° to +176°F)	Bistable

Type selection

Type number	Oper. dist. (mm)	Dimensions (mm)	Contact ratings	Operating temperature	Output
Proximity magnetic sensors - cylindrical - metal housing					
FMA3S5	7 - 23	M12 x 1	500 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NO
FMA6	15 - 36	M10 x 0.75	100 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NO
FMA9S1	20	M12 x 1	230 VAC/DC, 3 A	-25° to +70°C (-13° to +158°F)	NO
FMC3S1	5 - 18	M12 x 1	500 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NC
FMMA3	10 - 27	M8 x 1	500 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NO
FMMA6	14 - 28	M8 x 1	100 VAC, 0.5 A	-25° to +70°C (-13° to +158°F)	NO
FMM51	8 - 23	M8 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	CO
FSA2S32MT	7 - 12	M10 x 1.25	250 VAC, 3A	-25° to +75°C (-13° to +167°F)	NO
FSS2S12MT	7 - 12	M10 x 1.25	230 VAC, 1A	-25° to +75°C (-13° to +167°F)	CO
FSA2S42MT	7 - 12	M12 x 1	250 VAC, 3A	-25° to +75°C (-13° to +167°F)	NO
FSS2S42MT	7 - 12	M12 x 1	230 VAC, 1A	-25° to +75°C (-13° to +167°F)	CO
FSMA2	2 - 19	M12 x 1	250 VAC, 3 A	-25° to +75°C (-13° to +167°F)	NO
FSMA7	≥ 7	M12 x 1	24 VDC, 50 mA	-25° to +75°C (-13° to +167°F)	NO
FSMS2	9	M12 x 1	230 VAC, 1 A	-25° to +75°C (-13° to +167°F)	CO
FSMS2S2AT	≥ 5 - 8	M16 x 1	230 VAC, 0.5 A	-20° to 150°C (-4° to +302°F)	CO
Slot sensors - plastic housing					
ISYC3	-	45 x 37 x 10	500 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NC
ISYS1	-	45 x 37 x 10	100 VAC, 0.25 A	-25° to +75°C (-13° to +167°F)	CO
IMC3	-	28 x 18.5 x 7	500 VAC, 0.5 A	-25° to +75°C (-13° to +167°F)	NC
IMS1	-	28 x 18.5 x 7	100 VAC, 0.25 A	-25° to +75°C (-13° to +167°F)	CO
Level sensors - cylindrical - plastic housing					
ILSP2	-	∅ 44	250 VAC, 3 A	-25° to +100°C (-13° to +212°F)	NO, NC
ILSP8	-	∅ 44	1500 VAC, 3 A	-25° to +100°C (-13° to +212°F)	NO, NC
ILSP52	-	∅ 44	230 VAC, 1 A	-25° to +100°C (-13° to +212°F)	CO
ILMP5	-	∅ 25	240 VAC, 200 VDC, 0.5 A	-20° to +80°C (-4° to +176°F)	NO, NC
ILMP5P	-	∅ 25	240 VAC, 200 VDC, 0.5 A	-20° to +80°C (-4° to +176°F)	NO, NC
ILMPU5	-	∅ 17.5	240 VAC, 200 VDC, 0.5 A	-20° to +80°C (-4° to +176°F)	NO, NC
ILMU5	-	∅ 31	240 VAC, 200 VDC, 0.5 A	-20° to +80°C (-4° to +176°F)	NO, NC
ILU2	-	∅ 45	250 VAC, 3 A	-25° to +100°C (-13° to +212°F)	NO
ILU8	-	∅ 45	1000 VAC, 3 A	-25° to +100°C (-13° to +212°F)	NO
ILUS2	-	∅ 45	230 VAC, 1 A	-25° to +100°C (-13° to +212°F)	CO
Level sensors - cylindrical - metal housing					
ILM2	-	∅ 53	250 VAC, 3 A	-25° to +120°C (-13° to +248°F)	NO, NC
ILM8	-	∅ 53	1500 VAC, 3 A	-25° to +120°C (-13° to +248°F)	NO, NC
ILMS2	-	∅ 53	230 VAC, 1 A	-25° to +120°C (-13° to +248°F)	CO
ILMM5	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-10° to +120°C (-14° to +248°F)	NO, NC
ILMM590	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-10° to +120°C (-14° to +248°F)	NO, NC
ILMM5ATS1	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-10° to +200°C (-14° to +392°F)	NO, NC
ILMM5S2AT	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-10° to +200°C (-14° to +392°F)	NC
ILMM5S2	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-20° to +120°C (-4° to +248°F)	NC
ILMM5S1	-	∅ 28	240 VAC, 220 VDC, 0.5 A	-20° to +120°C (-4° to +248°F)	NO
Flux sensors - cylindrical - metal housing					
FLMA1S1	5	∅ 20	100 VAC, 0.4 A	-30° to +105°C (-22° to +221°F)	NO

Magnetic sensors

Type selection

Type number	Oper. dist. (mm)	Dimensions (mm)	Contact ratings	Operating temperature	Output
Safety magnetic sensors - rectangular - plastic housing					
SMS01	10	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSAP11AA02M *	10	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMS02	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSAP11AB02M *	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMS02LD	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMS02S1	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMS03	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSAP20AF02M *	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMS03NC	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSAP20AG02M *	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMS03+CM1A4/03MT	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSAP20AF03DCP *	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMS10	20	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO
SMS10NC	17	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO
SMS10NCCM1	17	88 x 25 x 13	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO
Safety magnetic sensors - cylindrical - plastic housing					
SMSA2P02	15	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMS2P11AJ02M *	15	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSA2P02LD	15	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSA3P02	15	M30 x 1.5	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSA2P10	16	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO
SMSA2P30	16	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSA3P30	16	M30 x 1.5	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSA2P03	16	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
SMSA3P03	16	M30 x 1.5	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	2 NO
Safety magnetic sensors - cylindrical - metal housing					
SMSA2M02	15	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO + 1 NC
SMSA2M10	16	M18 x 1	100 VAC, 0.25 A	-25° to +70°C (-13° to +158°F)	1 NO
Atex certified sensors - plastic housing					
MQA1EX	10 - 35	37 x 16 x 8.3	230 VAC/DC, 0.75 A	-20° to +60°C (-4° to +140°F)	NO
MQC1EX	7 - 30	37 x 16 x 8.3	230 VAC/DC, 0.75 A	-20° to +60°C (-4° to +140°F)	NC
MQS1EX	10 - 35	37 x 16 x 8.3	150 VAC/DC, 0.25 A	-20° to +60°C (-4° to +140°F)	CO
MQA0EX	10 - 35	37 x 16 x 8.3	30 VAC/DC, 120 mA	-20° to +60°C (-4° to +140°F)	NO
Atex certified sensors - metal housing					
FSQA2B01SLEX	8 - 30	PG 13.5	250 VAC, 3 A	-20° to +60°C (-4° to +140°F)	NO
FSQA2HFEX	8 - 30	PG 13.5	250 VAC, 3 A	-20° to +60°C (-4° to +140°F)	NO
ILMA2CSLEX	-	45 x 55	250 VAC/DC, 3 A	-20° to +60°C (-4° to +140°F)	NO
ILMA2SSLEX	-	∅ 53	250 VAC/DC, 3 A	-20° to +60°C (-4° to +140°F)	NO
ILMS2CEX	-	45 x 55	230 VAC/DC, 1 A	-20° to +60°C (-4° to +140°F)	CO
ILMS2SEX	-	∅ 53	230 VAC/DC, 1 A	-20° to +60°C (-4° to +140°F)	CO
ILMA0CSLEX	-	45 x 55	30 VAC/DC, 120 mA	-20° to +60°C (-4° to +140°F)	NO
ILMA0SSLEX	-	∅ 53	30 VAC/DC, 120 mA	-20° to +60°C (-4° to +140°F)	NO
ILMS0CEX	-	45 x 55	30 VAC/DC, 120 mA	-20° to +60°C (-4° to +140°F)	CO
ILMS0SEX	-	∅ 53	30 VAC/DC, 120 mA	-20° to +60°C (-4° to +140°F)	CO

Type selection

Type number	Oper. dist. (mm)	Dimensions (mm)	Contact ratings	Operating temperature	Output
Magnets - rectangular - plastic housing					
CL1	-	14 x 25 x 8	-	-	-
CL2	-	12 x 44.5 x 9	-	-	-
CL3	-	18 x 59 x 9	-	-	-
CL4	-	25 x 76 x 10	-	-	-
CLS	-	88 x 25 x 13	-	-25° to +70°C (-13° to +158°F)	-
CLSD88PM0 *	-	88 x 25 x 13	-	-25° to +70°C (-13° to +158°F)	-
Magnets - cylindrical - plastic housing					
CL10	-	∅ 9.3 x 32	-	-	-
CL11	-	∅ 13.5 x 65	-	-	-
CL20S3	-	∅ 22.1 x 20.5	-	-	-
CLSA2	-	∅ 25.1 x 9.3	-	-25° to +70°C (-13° to +158°F)	-
CLSA25PC0 *	-	∅ 25.1 x 9.3	-	-25° to +70°C (-13° to +158°F)	-
CLSA3	-	∅ 30 x 16	-	-25° to +70°C (-13° to +158°F)	-
Magnets - cylindrical - metal housing					
CLSA2M	-	∅ 25.1 x 9.3	-	-25° to +70°C (-13° to +158°F)	-
Magnets - cylindrical					
CL18	-	∅ 18 x 6	-	-	-
CL20S1	-	∅ 20 x 10.5	-	-	-
CL23	-	∅ 23 x 9	-	-	-
CL31	-	∅ 31 x 10	-	-	-
Magnets - trapezoidal - plastic housing					
CL90	-	31 x 90 x 22.5	-	-	-
Accessories for lift market					
AJL100M12	-	114 x 20.5 x 14	-	-	-
AJL150M12	-	165 x 20.5 x 14	-	-	-
AJL250M12	-	267 x 20.5 x 14	-	-	-
ASD12M12	-	∅ 12	-	-	-
AML100M12	-	100 x 15 x 6	-	-	-
AML150M12	-	150 x 15 x 6	-	-	-
AML200M12	-	200 x 15 x 6	-	-	-
AML300M12	-	300 x 15 x 6	-	-	-
Pick up sensors - nylon housing					
PA2PKF45T60	< 2	M20 x 1.5	-	-40° to +130°C (-40° to +266°F)	Pulse
PA2PKF45T70	< 2	M20 x 1.5	-	-40° to +130°C (-40° to +266°F)	Pulse
PA2PKF45T107	< 2	M20 x 1.5	-	-40° to +130°C (-40° to +266°F)	Pulse

* UL part number

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
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