

Magnetic sensors

Sensors

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.

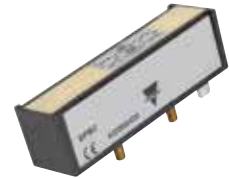


Magnetic sensors

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 VO | 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 | FMAA3 | FMAA6 |
| 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 |
|--------------------|--------------|---------------------|------------------------------------|

| 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 |
|-------------|------------------------|-----------------------|

| 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 |
|-------------|-----------------------------|---------------------|-----------------|

| 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 |
|------|-----------------|-----------------|-----------------|

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 |
|--|-----|-----|-----|

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 | Ø 9.3 | 500 VAC, 0.5 A | -25° to +70°C (-13° to +158°F) | NO |
| FMC3 | 7 - 20 | Ø 9.3 | 500 VAC, 0.5 A | -25° to +70°C (-13° to +158°F) | NC |
| FMS1 | 9 - 25 | Ø 9.3 | 100 VAC, 0.25 A | -25° to +70°C (-13° to +158°F) | CO |
| FMMPA7L25 | > 8 | Ø 6 x 25 | 140 VAC, 200 VDC, 1 A | -20° to +75°C (-4° to +167°F) | NO |
| FMMPA7L33 | > 8 | Ø 6 x 33 | 140 VAC, 200 VDC, 1 A | -20° to +75°C (-4° to +167°F) | NO |
| FMMPA7L38 | > 8 | Ø 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 | Ø 13.5 | 250 VAC, 3 A | -25° to +75°C (-13° to +167°F) | NO |
| FSA8 | 7 - 12 | Ø 13.5 | 1500 VAC, 3 A | -25° to +75°C (-13° to +167°F) | NO |
| FSC2 | 3 - 12 | Ø 13.5 | 250 VAC, 3 A | -25° to +75°C (-13° to +167°F) | NC |
| FSC8 | 3 - 12 | Ø 13.5 | 1500 VAC, 3 A | -25° to +75°C (-13° to +167°F) | NC |
| FSS2 | 7 - 12 | Ø 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 | Ø 16 x 110 | 100 VAC, 0.4 A | -30 to +80°C (-22° to +176°F) | NO |
| FSLPB2 | front: 18, side: >10 | Ø 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 |
| FMMS1 | 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 |
| ILSPS2 | - | ∅ 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

OUR SALES NETWORK IN EUROPE

AUSTRIA

Carlo Gavazzi GmbH
Ketzergasse 374,
A-1230 Wien
Tel: +43 1 888 4112
Fax: +43 1 889 10 53
office@carlogavazzi.at

FRANCE

Carlo Gavazzi Sarl
Zac de Paris Nord II, 69, rue de la Belle Etoile,
F-95956 Roissy CDG Cedex
Tel: +33 1 49 38 98 60
Fax: +33 1 48 63 27 43
french.team@carlogavazzi.fr

ITALY

Carlo Gavazzi SpA
Via Milano 13,
I-20020 Lainate
Tel: +39 02 931 761
Fax: +39 02 931 763 01
info@gavazziacbu.it

SPAIN

Carlo Gavazzi SA
Avda. Iparraguirre, 80-82,
E-48940 Leioa (Bizkaia)
Tel: +34 94 480 4037
Fax: +34 94 431 6081
gavazzi@gavazzi.es

BELGIUM

Carlo Gavazzi NV/SA
Mechelsesteenweg 311,
B-1800 Vilvoorde
Tel: +32 2 257 4120
Fax: +32 2 257 41 25
sales@carlogavazzi.be

GERMANY

Carlo Gavazzi GmbH
Pfnorstr. 10-14
D-64293 Darmstadt
Tel: +49 6151 81000
Fax: +49 6151 81 00 40
info@gavazzi.de

NETHERLANDS

Carlo Gavazzi BV
Wijkermeerweg 23,
NL-1948 NT Beverwijk
Tel: +31 251 22 9345
Fax: +31 251 22 60 55
info@carlogavazzi.nl

SWEDEN

Carlo Gavazzi AB
V:a Kyrkogatan 1,
S-652 24 Karlstad
Tel: +46 54 85 1125
Fax: +46 54 85 11 77
info@carlogavazzi.se

DENMARK

Carlo Gavazzi Handel A/S
Over Hadstenevej 40,
DK-8370 Hadsten
Tel: +45 89 60 6100
Fax: +45 86 98 15 30
handel@gavazzi.dk

GREAT BRITAIN

Carlo Gavazzi UK Ltd
4.4 Frimley Business Park,
Frimley, Camberley, Surrey GU16 7SG
Tel: +44 1 276 854 110
Fax: +44 1 276 682 140
sales@carlogavazzi.co.uk

NORWAY

Carlo Gavazzi AS
Melkeveien 13,
N-3919 Porsgrunn
Tel: +47 35 93 0800
Fax: +47 35 93 08 01
post@gavazzi.no

SWITZERLAND

Carlo Gavazzi AG
Verkauf Schweiz/Vente Suisse
Sumpfstrasse 3,
CH-6312 Steinhausen
Tel: +41 41 747 4535
Fax: +41 41 740 45 40
info@carlogavazzi.ch

FINLAND

Carlo Gavazzi OY AB
Petaksentie 2-4,
FI-00630 Helsinki
Tel: +358 9 756 2000
Fax: +358 9 756 20010
myynti@gavazzi.fi

PORTUGAL

Carlo Gavazzi Lda
Rua dos Jerónimos 38-B,
P-1400-212 Lisboa
Tel: +351 21 361 7060
Fax: +351 21 362 13 73
carlogavazzi@carlogavazzi.pt

OUR SALES NETWORK IN THE AMERICAS

USA

Carlo Gavazzi Inc.
750 Hastings Lane,
Buffalo Grove, IL 60089, USA
Tel: +1 847 465 6100
Fax: +1 847 465 7373
sales@carlogavazzi.com

CANADA

Carlo Gavazzi Inc.
2660 Meadowvale Boulevard,
Mississauga, ON L5N 6M6, Canada
Tel: +1 905 542 0979
Fax: +1 905 542 22 48
gavazzi@carlogavazzi.com

MEXICO

Carlo Gavazzi Mexico S.A. de C.V.
Calle La Montaña no. 28, Fracc. Los Pastores
Naucalpan de Juárez, EDOMEX CP 53340
Tel & Fax: +52.55.5373.7042
mexicosales@carlogavazzi.com

BRAZIL

Carlo Gavazzi Automação Ltda.Av.
Francisco Matarazzo, 1752
Conj 2108 - Barra Funda - São Paulo/SP
Tel: +55 11 3052 0832
Fax: +55 11 3057 1753
info@carlogavazzi.com.br

OUR SALES NETWORK IN ASIA AND PACIFIC

SINGAPORE

Carlo Gavazzi Automation Singapore Pte. Ltd.
61 Tai Seng Avenue
#05-06 UE Print Media Hub
Singapore 534167
Tel: +65 67 466 990
Fax: +65 67 461 980
info@carlogavazzi.com.sg

MALAYSIA

Carlo Gavazzi Automation (M) SDN. BHD.
D12-06-G, Block D12,
Pusat Perdagangan Dana 1,
Jalan PJU 1A/46, 47301 Petaling Jaya,
Selangor, Malaysia.
Tel: +60 3 7842 7299
Fax: +60 3 7842 7399
sales@gavazzi-asia.com

CHINA

Carlo Gavazzi Automation
(China) Co. Ltd.
Unit 2308, 23/F.,
News Building, Block 1, 1002
Middle Shennan Zhong Road,
Shenzhen, China
Tel: +86 755 83699500
Fax: +86 755 83699300
sales@carlogavazzi.cn

HONG KONG

Carlo Gavazzi Automation
Hong Kong Ltd.
Unit 3 12/F Crown Industrial Bldg.,
106 How Ming St., Kwun Tong,
Kowloon, Hong Kong
Tel: +852 23041228
Fax: +852 23443689

OUR COMPETENCE CENTRES AND PRODUCTION SITES

DENMARK

Carlo Gavazzi Industri A/S
Hadsten

MALTA

Carlo Gavazzi Ltd
Zejtun

ITALY

Carlo Gavazzi Controls SpA
Belluno

LITHUANIA

Uab Carlo Gavazzi Industri Kaunas
Kaunas

CHINA

Carlo Gavazzi Automation (Kunshan) Co., Ltd.
Kunshan

HEADQUARTERS

Carlo Gavazzi Automation SpA
Via Milano, 13
I-20020 - Lainate (MI) - ITALY
Tel: +39 02 931 761
info@gavazziautomation.com



CARLO GAVAZZI
Automation Components

Energy to Components!

www.gavazziautomation.com



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Industrial Hall Effect/Magnetic Sensors](#) category:

Click to view products by [Carlo Gavazzi](#) manufacturer:

Other Similar products are found below :

[GT-13013](#) [GT-13040](#) [GT-14114](#) [GT-14123](#) [SR4P2-C7](#) [GT-12076](#) [GT-13012](#) [GT-14049](#) [GT-14067](#) [GT-14132](#) [GT-18030](#) [103FW12-R3](#)
[SMSA2P30CG](#) [103FW41-R1](#) [SR-10018](#) [PST360G2-1S-C0000-ERA360-05K](#) [103SR14A-1](#) [101MG7-BP](#) [A1389LUA-9-T](#) [MXM1120KIT](#)
[MXM1120SOKIT](#) [A1220LLHLT-T](#) [AA006-02E](#) [ACX04-F99-I-V15](#) [PW520000](#) [ADH025-00E](#) [RZT7-03ZRS-KP0](#) [PSC360G2-F1A-C0000-](#)
[ERA360-RE-K](#) [PSC360G2-F2AA-C0002-ERA360-05K](#) [PST360G2-2AA-C0002-ERA360-05K](#) [SM451RT](#) [AA005-02E](#) [ACW400-0360-002](#)
[M9105/K06](#) [PS2P-CON-CE-M001-1A0-C0007-ERA180-05](#) [PS2P-CON-CE-M001-1A0-C0007-ERA360](#) [PSC360G2-F1A-C0000-ERA360-](#)
[05K](#) [PSC360G2-F1A-C0000-ERA360-RE](#) [PSC360G2-F1A-C0007-ERA180-05K](#) [PSC360G2-F1A-C0011-ERA090-05K](#) [PSC360G2-F-1P-](#)
[C0000-ERA360-05K-F200](#) [PST360G2-1A-C0000-ERA360-05K](#) [PST360G2-1A-C0000-ERA360-RE](#) [PST360G2-1A-C0007-ERA180-05K](#)
[PST360G2-1A-C0011-ERA090-05K](#) [PST360G2-B1A-C0000-ERA360-05K](#) [P2S-001](#) [ACW400-0090-007](#) [ACW400-0090-008](#) [ACW400-](#)
[0360-018](#)