imall

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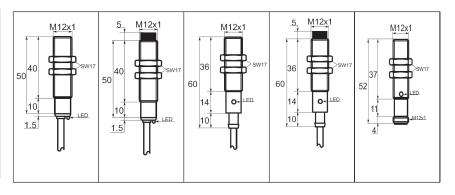
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





M12 Inductive Proximity Sensors

Standard Length "Mini's" Extended Sensing 3 Wire DC 2 Wire DC 2 Wire AC

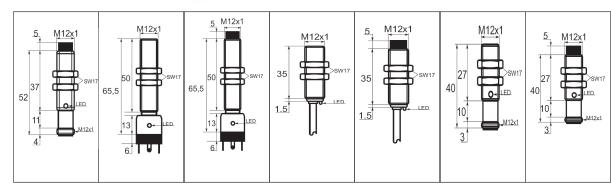


| | | (Wiring Schematic) | | 1 | | | | | |
|-----------|---|-------------------------------|-----------------|------------------|---------------------|------------------|---------------|--|--|
| 3 Wire DC | PNP – Normally Open | (1) | IMM32122C | IMM35124C | IMN32122C | IMN35124C | IMN32122M12 | | |
| | PNP – Normally Closed | (1) | IMM33122C | IMM36124C | IMN33122C | IMN36124C | IMN33122M12 | | |
| | PNP – Selectable | (4) | IMM34122C | IMM37124C | IMN34122C | IMN37124C | IMN34122M12 | | |
| | NPN – Normally Open | (2) | IMM22122C | IMM25124C | IMN22122C | IMN25124C | IMN22122M12 | | |
| | NPN – Normally Closed | (2) | IMM23122C | IMM26124C | IMN23122C | IMN26124C | IMN23122M12 | | |
| | NPN – Selectable | (5) | IMM24122C | IMM27124C | IMN24122C | IMN27124C | IMN24122M12 | | |
| 2 Wire DC | Normally Open | | - | - | - | - | - | | |
| | Normally Closed | | - | - | - | - | - | | |
| 2 Wire AC | Normally Open | | - | - | - | - | - | | |
| | Normally Closed | | - | - | - | - | - | | |
| | Mating cables / connectors | | | | | | | | |
| | Form | | M12 Shielded | M12 Non-Shielded | M12 Shielded | M12 Non-Shielded | M12 Shielded | | |
| | Nominal Sensing Distance (Sn) | | 2mm | 4mm | 2mm | 4mm | 2mm | | |
| | Housing Material | | | | | | | | |
| | Termination Type | | 2.0 Meter Cable | 2.0 Meter Cable | 2.0 Meter Cable | 2.0 Meter Cable | M12 Connector | | |
| | Min / Max Supply Voltage | | | 10 to 30Vdc | | | | | |
| | Max. Load Current (Ir) | | 200mA | | | | | | |
| | Max ripple factor (Vr) | | | | $\leq 10\%$ | | | | |
| | Voltage Drop (Ud) | | ≤ 3V @ 200mA | | | | | | |
| | Power Consumption (Io) | | | | $\leq 10 \text{mA}$ | | | | |
| | Switching Frequency (Hz) | | 1.5kHz | 1kHz | 1.5kHz | 1kHz | 1.5kHz | | |
| | Repeatability | < 2% nominal sensing distance | | | | | | | |
| | Hysteresis | ≤ 10% Sn | | | | | | | |
| | Short Circuit Protection | Yes | | | | | | | |
| | Output LED | | Yes | | | | | | |
| | Operating Temperature | | -25 to +70 C | | | | | | |
| | IP Rating IP67 (with connector mounted) | | | | | | | | |

Wiring Diagram







| PNP – NO | IMN35124M12 | IMN32122P | IMN35124P | IMC32122C | IMC35124C | IMC32122M12 | IMC35124M12 | | | |
|------------------|--|--------------|-----------|---------------------|-----------|-------------|-------------|--|--|--|
| PNP – NC | MN36124M12 IMN33122P IMN36124P IMC33122C IMC36124C IMC33122M12 IMC361 | | | | | | | | | |
| PNP – NO/NC | IMN37124M12 IMN34122P IMN37124P IMC34122C IMC36124C IMC34122M12 IMC37124 | | | | | | | | | |
| NPN – NO | IMN25124M12 IMN22122P IMN25124P IMC22122C IMC25124C IMC22122M12 IMC25124M | | | | | | | | | |
| NPN – NC | IMN26124M12 | IMN23122P | IMN26124P | IMC23122C | IMC26124C | IMC23122M12 | IMC26124M12 | | | |
| NPN – NO/NC | IMN27124M12 IMN24122P IMN27124P IMC24122C IMC26124C IMC24122M12 IMC27124M1 | | | | | | | | | |
| 2W DC NO | | | | | | | | | | |
| 2W DC NC | | | | | | | | | | |
| 2W AC NO | · · · · · · · · · | | | | | | | | | |
| 2W AC NC | · · · · · · · · · · | | | | | | | | | |
| Mates | | | | | | | | | | |
| Form | M12 Non-Shielded M12 Shielded M12 Non-Shielded M12 Shielded M12 Non-Shielded M12 Non-Shielded M12 Non-Shielded | | | | | | | | | |
| Sn | 4mm 2mm 4mm 2mm 4mm 2mm 4mm | | | | | | | | | |
| Housing | Nickel Plated Brass | | | | | | | | | |
| Termination | M12 Connector Sub-Base Plug Sub-Base Plug 2.0 Meter Cable 2.0 Meter Cable M12 Connector M12 Connector | | | | | | | | | |
| Supply Vdc | 10 to 30Vdc | | | | | | | | | |
| Max Load | | 200mA | | | | | | | | |
| Max ripple | | $\leq 10\%$ | | | | | | | | |
| Ud | | | | ≤3V @ 200mA | | | | | | |
| lo | | ≤ 10 mA | | | | | | | | |
| Hz | 1kHz 1.5kHz 1kHz 1.5kHz 1kHz 1.5kHz 1kHz | | | | | | | | | |
| Repeatability | | | < 2% | nominal sensing dis | tance | | | | | |
| Hysteresis | | | | ≤ 10% Sn | | | | | | |
| Short Protection | | | | Yes | | | | | | |
| LED | | | | Yes | | | | | | |
| Op Temp | | | | -25 to +70 C | | | | | | |
| IP Rating | | | IP67 | (with connector mou | nted) | | | | | |
| | | | | | | | | | | |

MARRONE / BROWN 1+ 4 OUT NERO / BLACK

2

3 -BLU / BLUE

MARRONE / BROWN 1 + 1 1+ (4) 2 NC OUT BIANCOWHITE 3 -3 4 NO OUT NERO / BLACK

BLU / BLUE 3 -

MARRONE / BROWN 4 OUT NERO / BLACK BLU / BLUE

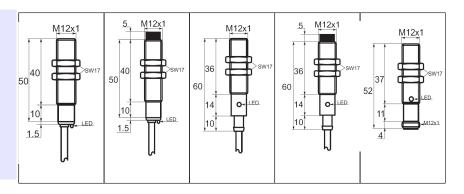


MARRONE / BROWN 1+ 2 NC OUT BIANCO/WHITE 3 -BLU / BLUE 4 NO OUT NERO / BLACK



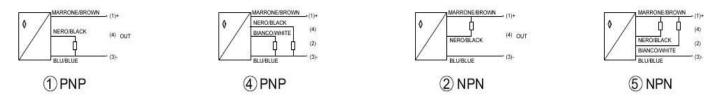
M12 Inductive Proximity Sensors

Standard Length "Mini's" Extended Sensing 3 Wire DC 2 Wire DC 2 Wire AC

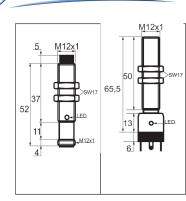


| | | (Wiring Schematic) | | | | | | | |
|-----------|---|---------------------|-------------------------------|------------------|---------------------|------------------|---------------|--|--|
| 3 Wire DC | PNP – Normally Open | (1) | IMM32124C | IMM35128C | IMN32124C | IMN35128C | IMN32124M12 | | |
| | PNP – Normally Closed | (1) | IMM33124C | IMM36128C | IMN33124C | IMN36128C | IMN33124M12 | | |
| | PNP – Selectable | (4) | - | - | - | - | - | | |
| | NPN – Normally Open | (2) | IMM22124C | IMM25128C | IMN22124C | IMN25128C | IMN22124M12 | | |
| | NPN – Normally Closed | (2) | IMM23124C | IMM26128C | IMN23124C | IMN26128C | IMN23124M12 | | |
| | NPN – Selectable | (5) | - | - | - | - | - | | |
| 2 Wire DC | Normally Open | | - | - | - | - | - | | |
| | Normally Closed | | - | - | - | - | - | | |
| 2 Wire AC | Normally Open | | - | - | - | - | - | | |
| | Normally Closed | | - | - | - | - | - | | |
| | Mating cables / connectors | | | | | | | | |
| | Form | | M12 Shielded | M12 Non-Shielded | M12 Shielded | M12 Non-Shielded | M12 Shielded | | |
| | Nominal Sensing Distance (Sn) | | 4mm | 8mm | 4mm | 8mm | 4mm | | |
| | Housing Material | Nickel Plated Brass | | | | | | | |
| | Termination Type | | 2.0 Meter Cable | 2.0 Meter Cable | 2.0 Meter Cable | 2.0 Meter Cable | M12 Connector | | |
| | Min / Max Supply Voltage | | | 10 to 30Vdc | | | | | |
| | Max. Load Current (Ir) | | | 200mA | | | | | |
| | Max ripple factor (Vr) | $\leq 10\%$ | | | | | | | |
| | Voltage Drop (Ud) | \leq 3V @ 200mA | | | | | | | |
| | Power Consumption (Io) | | | | $\leq 10 \text{mA}$ | | | | |
| | Switching Frequency (Hz) | | 1kHz | 1kHz | 1kHz | 1kHz | 1kHz | | |
| | Repeatability | | < 2% nominal sensing distance | | | | | | |
| | Hysteresis | | ≤ 10% Sn | | | | | | |
| | Short Circuit Protection | | Yes | | | | | | |
| | Output LED | Yes | | | | | | | |
| | Operating Temperature | | -25 to +70 C | | | | | | |
| | IP Rating IP67 (with connector mounted) | | | | | | | | |

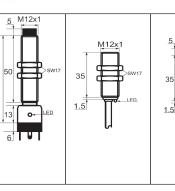
Wiring Diagram



M12x1



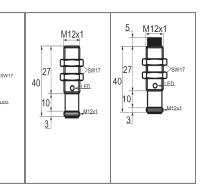
Crouzet



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| PNP - NC IMN36128M12 IMN33124P IMN36128P IMC33124C IMC36128C IMC33124M12 IMC36 PNP - NO/NC - | 128M12 128M12 - 128M12 128M12 - - - - | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|
| PNP - NO/NC - <th< td=""><td>- 128M12 128M12 - -</td></th<> | - 128M12 128M12 - - | | | | | | | | |
| NPN - NO IMN25128M12 IMN22124P IMN25128P IMC22124C IMC25128C IMC22124M12 IMC25 NPN - NC IMN26128M12 IMN23124P IMN26128P IMC23124C IMC26128C IMC23124M12 IMC26 NPN - NO/NC - | 128M12 - - | | | | | | | | |
| NPN - NC IMN26128M12 IMN23124P IMN26128P IMC23124C IMC26128C IMC23124M12 IMC26 NPN - NO/NC - | 128M12 - - | | | | | | | | |
| NPN - NO/NC - <th< td=""><td>-</td></th<> | - | | | | | | | | |
| 2W DC NO -< | | | | | | | | | |
| 2W DC NC | - | | | | | | | | |
| | - | | | | | | | | |
| 2W AC NO | _ | | | | | | | | |
| | | | | | | | | | |
| 2W AC NC | - | | | | | | | | |
| Mates | | | | | | | | | |
| Form M12 Non-Shielded M12 Shielded M12 Non-Shielded M12 Shielded M12 Shielded M12 Non-Shielded M12 Shielded M12 Non-Shielded | n-Shielded | | | | | | | | |
| Sn 8mm 4mm 8mm 4mm 8mm 4mm 8 | mm | | | | | | | | |
| Housing Nickel Plated Brass | Nickel Plated Brass | | | | | | | | |
| Termination M12 Connector Sub-Base Plug Sub-Base Plug 2.0 Meter Cable 2.0 Meter Cable M12 Connector M12 C | onnector | | | | | | | | |
| Supply Vdc 10 to 30Vdc | | | | | | | | | |
| Max Load 200mA | | | | | | | | | |
| Max ripple $\leq 10\%$ | | | | | | | | | |
| Ud \leq 3V @ 200mA | | | | | | | | | |
| lo≤10mA | | | | | | | | | |
| Hz 1kHz 1kHz 1kHz 1kHz 1kHz 1kHz 1kHz 1k | кНz | | | | | | | | |
| Repeatability < 2% nominal sensing distance | | | | | | | | | |
| Hysteresis ≤ 10% Sn | | | | | | | | | |
| Short Protection Yes | | | | | | | | | |
| LED Yes | | | | | | | | | |
| Op Temp -25 to +70 C | | | | | | | | | |
| IP Rating IP67 (with connector mounted) | | | | | | | | | |

MARRONE / BROWN 1+ 4 OUT NERO / BLACK

2

3 -BLU / BLUE



BLU / BLUE 3 -

MARRONE / BROWN 4 OUT NERO / BLACK BLU / BLUE

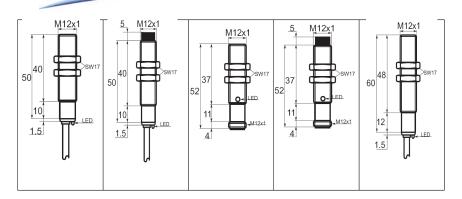


MARRONE / BROWN 1+ 2 NC OUT BIANCO/WHITE 3 -BLU / BLUE 4 NO OUT NERO / BLACK



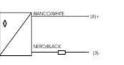
M12 Inductive Proximity Sensors

Standard Length "Mini's" Extended Sensing 3 Wire DC 2 Wire DC 2 Wire AC



| | | (Wiring Schematic) | | | | | | |
|-----------|-------------------------------|-------------------------------|-------------------------------|---------------------|---------------|------------------|-----------------|--|
| 3 Wire DC | PNP – Normally Open | (1) | - | - | - | - | - | |
| | PNP – Normally Closed | (1) | - | - | - | - | - | |
| | PNP – Selectable | (4) | - | - | - | - | - | |
| | NPN – Normally Open | (2) | - | - | - | - | - | |
| | NPN – Normally Closed | (2) | - | - | - | - | - | |
| | NPN – Selectable | (5) | - | - | - | - | - | |
| 2 Wire DC | Normally Open (6) | | IMM42122C | IMM45124C | IMN42122M12 | IMN45124M12 | - | |
| | Normally Closed | (6) | IMM43122C | IMM46124C | IMN43122M12 | IMN46124M12 | - | |
| 2 Wire AC | Normally Open | (7) | - | - | - | - | IMM62122C | |
| | Normally Closed | (7) | - | - | - | - | IMM63122C | |
| | Mating cables / connectors | | | | | | | |
| | Form | | M12 Shielded | M12 Non-Shielded | M12 Shielded | M12 Non-Shielded | M12 Shielded | |
| | Nominal Sensing Distance (Sn) | | 2mm | 4mm | 2mm | 4mm | 2mm | |
| | Housing Material | | | Nickel Plated Brass | | | | |
| | Termination Type | | 2.0 Meter Cable | 2.0 Meter Cable | M12 Connector | M12 Connector | 2.0 Meter Cable | |
| | Min / Max Supply Voltage | | | 10 to 30Vdc | | 20 to 220 Vac | | |
| | Max. Load Current (Ir) | | | 100mA | | 400 mA | | |
| | Max ripple factor (Vr) | | | $\leq 10\%$ | | - | | |
| | Voltage Drop (Ud) | | \leq 4.5Vac | | | | | |
| | Power Consumption (Io) | | | | \leq 0.7mA | | \leq 2.5mA | |
| | Switching Frequency (Hz) | | 1kHz | 800 Hz | 1kHz | 800 Hz | 20 Hz | |
| | Repeatability | < 2% nominal sensing distance | | | | | | |
| | Hysteresis | ≤ 10% Sn | | | | | | |
| | Short Circuit Protection | | No | | | | | |
| | Output LED | | Yes Yes | | | | | |
| | Operating Temperature | -25 to +70 C | | | | | | |
| | IP Rating | | IP67 (with connector mounted) | | | | | |

Wiring Diagram





4 + NERO / BLACK 3 - BLU / BLUE

WARRONE/BROWN 0



5

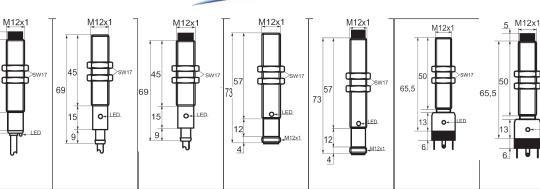
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C

Inductive Proximity Sensors



| | · · · · · · | | | | | | | | | |
|------------------|-------------------------------|-----------------|------------------|---------------------|------------------|---------------|---------------|--|--|--|
| PNP – NO | - | - | - | - | - | - | - | | | |
| PNP – NC | - | - | - | - | - | - | - | | | |
| PNP – NO/NC | - | - | - | - | - | - | - | | | |
| NPN – NO | - | - | - | - | - | - | - | | | |
| NPN – NC | | - | - | - | - | - | | | | |
| NPN – NO/NC | - | - | - | - | - | - | - | | | |
| 2W DC NO | - | - | - | - | - | - | - | | | |
| 2W DC NC | - | - | - | - | - | - | - | | | |
| 2W AC NO | IMM65124C | IMN62122C | IMN65124C | IMN62122M12 | IMN65124M12 | IMN62122P | IMN65124F | | | |
| 2W AC NC | IMM66124C | IMN63122C | IMN66124C | IMN63122M12 | IMN66124M12 | IMN63122P | IMN66124 | | | |
| Mates | | | | | | | | | | |
| Form | M12 Non-Shielded | M12 Shielded | M12 Non-Shielded | M12 Shielded | M12 Non-Shielded | M12 Shielded | M12 Non-Shiel | | | |
| Sn | 4mm | 2mm | 4mm | 2mm | 4mm | 2mm | 4mm | | | |
| Housing | Nickel Plated Brass | | | | | | | | | |
| Termination | 2.0 Meter Cable | 2.0 Meter Cable | 2.0 Meter Cable | M12 Connector | M12 Connector | Sub-Base Plug | Sub-Base Plu | | | |
| Supply Vdc | | 20 to 220Vac | | | | | | | | |
| Max Load | | 400mA | | | | | | | | |
| Max ripple | | | | - | | | | | | |
| Ud | | | | \leq 4.5Vac | | | | | | |
| lo | | | | \leq 2.5mA | | | | | | |
| Hz | 20 Hz | 20 Hz | 20 Hz | 20 Hz | 20 Hz | 20 Hz | 20 Hz | | | |
| Repeatability | | | < 2% | nominal sensing dis | tance | | | | | |
| Hysteresis | | | | ≤ 10% Sn | | | | | | |
| Short Protection | | | | No | | | | | | |
| LED | | | | Yes | | | | | | |
| Op Temp | | | | -25 to +70 C | | | | | | |
| IP Rating | IP67 (with connector mounted) | | | | | | | | | |





MARRONE / BROWN 1~ 2/3 ~ BLU / BLUE



1~

MARRONE / BROWN 2/3 ~ BLU / BLUE