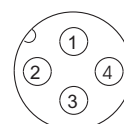
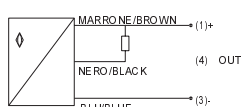
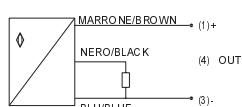


Diametri 6,5-8-12-18-30 mm
con alimentazione 10 ÷ 50 Vdc

Diametri 12-18-30 mm
con alimentazione 10 ÷ 60 Vdc

| TIPI - TYPES | Ø 6,5 10 ÷ 50 Vdc | | | | | |
|--|--|--------------------------|--------------------------|---------------------------------|---------------------------------|----------------------|
| <p>10 ÷ 50 Vdc 10 ÷ 60 Vdc</p> <p>CARATTERISTICHE FEATURES</p> | | | | | | |
| | ● | ● | ● | ● | ● | |
| Schermato - <i>Shielded</i> | ● | ● | ● | ● | ● | |
| Non schermato - <i>Unshielded</i> | | | ● | | | |
| Portata nominale - <i>Nominal sensing distance</i> | 1 mm | 1,5 mm | 2 mm | 1 mm | 1,5 mm | |
| Tensione di alimentazione - <i>Supply voltage</i> | 10 ÷ 50 Vdc | | | | | |
| Ondulazione residua - <i>Ripple</i> | ≤ 10% | | | | | |
| Corrente massima di carico - <i>Maximum load current</i> | 200 mA | | | | | |
| Caduta di tensione - <i>Voltage drop</i> | ≤ 3 V @ 200 mA | | | | | |
| Assorbimento - <i>Power consumption</i> | ≤ 10 mA | | | | | |
| Ripetibilità - <i>Repeatability</i> | < 2% della portata nominale - <i>nominal sensing distance</i> | | | | | |
| Isteresi - <i>Hysteresis</i> | ≤ 10% Sn | | | | | |
| Frequenza di commutazione - <i>Switching frequency</i> | 1 kHz | 1 kHz | 1 kHz | 1 kHz | 1 kHz | |
| Protezione al corto circuito - <i>Short circuit protection</i> | Sì - Yes | | | | | |
| Led di segnalazione - <i>Status output led</i> | Sì - Yes | | | | | |
| Temperatura di funzionamento - <i>Working temperature</i> | -25 ÷ +70 °C | | | | | |
| Grado di protezione - <i>IP rating</i> | IP67 (con connettore montato - <i>with connector mounted</i>) | | | | | |
| Custodia - <i>Housing</i> | Ottone nichelato - <i>Nickel plated brass</i> | | | | | |
| Connessione - <i>Connection</i> | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | Connettore M12 M12 connector | |
| Collegamento - <i>Linking</i> | 3 X 0,14 mm ² | 3 X 0,14 mm ² | 3 X 0,14 mm ² | C5-C6-C7-L7 | C5-C6-C7-L7 | |
| PNP-NO | (1) | B09G6,51PO | B09G6,51,5PO | B09EG6,52PO | B096,51POC5 | B096,51,5POC5 |
| PNP-NC | (1) | B09G6,51PC | B09G6,51,5PC | B09EG6,52PC | B096,51PCC5 | B096,51,5PCC5 |
| NPN-NO | (2) | B09G6,51NO | B09G6,51,5NO | B09EG6,52NO | B096,51NOC5 | B096,51,5NOC5 |
| NPN-NC | (2) | B09G6,51NC | B09G6,51,5NC | B09EG6,52NC | B096,51NCC5 | B096,51,5NCC5 |

SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

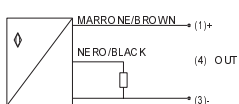


6,5-8-12-18-30 mm diameter,
10 ÷ 50 Vdc supply voltage

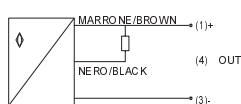
12-18-30 mm diameter.
10 ÷ 60 Vdc supply voltage

| Ø 6,5 10 + 50 Vdc | Ø 8 10 + 50 Vdc | | | | Ø 12 10 + 50 Vdc | |
|--|--------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------|
| | | | | | | |
| 68 | 40 | 40 | 50 | 50 | 50 | 50 |
| 5 | M8x1 | M8x1 | M8x1 | M8x1 | M12x1 | M12x1 |
| 50 | 40 | 40 | 50 | 50 | 40 | 40 |
| 4 | LED | LED | LED | LED | LED | LED |
| M12x1 | | | M12x1 | M12x1 | | |
| 2 mm | 1 mm | 2 mm | 1 mm | 2 mm | 2 mm | 4 mm |
| 10 ÷ 50 Vdc | 10 ÷ 50 Vdc | | | | 10 ÷ 50 Vdc | |
| ≤ 10% | ≤ 10% | | | | ≤ 10% | |
| 200 mA | 200 mA | | | | 200 mA | |
| ≤ 3 V @ 200 mA | ≤ 3 V @ 200 mA | | | | ≤ 3 V @ 200 mA | |
| ≤ 10 mA | ≤ 10 mA | | | | ≤ 10 mA | |
| < 2% della portata nominale - nominal sensing distance | | | | | | |
| ≤ 10% Sn | ≤ 10% Sn | | | | ≤ 10% Sn | |
| 1 kHz | 1,5 kHz | 1,5 kHz | 1,5 kHz | 1,5 kHz | 1,5 kHz | 1 kHz |
| Si - Yes | Si - Yes | | | | Si - Yes | |
| Si - Yes | Si - Yes | | | | Si - Yes | |
| -25 ÷ +70 °C | -25 ÷ +70 °C | | | | -25 ÷ +70 °C | |
| IP67 (con connettore montato - with connector mounted) | | | | | | |
| Ottone nichelato - Nickel plated brass | | | | | | |
| Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable |
| C5-C6-C7-L7 | 3 X 0,14 mm ² | 3 X 0,14 mm ² | C5-C6-C7-L7 | C5-C6-C7-L7 | 3 X 0,14 mm ² | 3 X 0,14 mm ² |
| B09E6,52POC5 | B09G81PO | B09EG82PO | B0981POC5 | B09E82POC5 | B09G122PO | B09EG124PO |
| B09E6,52PCC5 | B09G81PC | B09EG82PC | B0981PCC5 | B09E82PCC5 | B09G122PC | B09EG124PC |
| B09E6,52NOC5 | B09G81NO | B09EG82NO | B0981NOC5 | B09E82NOC5 | B09G122NO | B09EG124NO |
| B09E6,52NCC5 | B09G81NC | B09EG82NC | B0981NCC5 | B09E82NCC5 | B09G122NC | B09EG124NC |

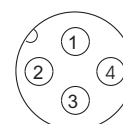
SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



① PNP

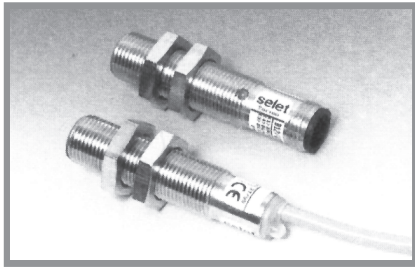


② NPN



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

C5-C6-C7-L7 CC/DC

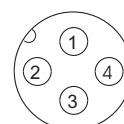
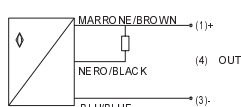
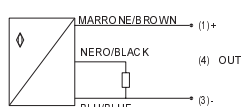


Diametri 6,5-8-12-18-30 mm
con alimentazione 10 ÷ 50 Vdc

Diametri 12-18-30 mm
con alimentazione 10 ÷ 60 Vdc

| TIPI - TYPES | Ø 12 10 + 50 Vdc | | Ø 12 10 + 60 Vdc | | | |
|--|--|---------------------------------|--------------------------|--------------------------|---------------------------------|-------------------|
| <p>10 + 50 Vdc 10 + 60 Vdc</p> | | | | | | |
| CARATTERISTICHE FEATURES | | | | | | |
| Schermato - <i>Shielded</i> | ● | | ● | | | |
| Non schermato - <i>Unshielded</i> | ● | | ● | | | |
| Portata nominale - <i>Nominal sensing distance</i> | 2 mm | | 4 mm | | 2 mm | |
| Tensione di alimentazione - <i>Supply voltage</i> | 10 ÷ 50 Vdc | | | 10 ÷ 60 Vdc | | |
| Ondulazione residua - <i>Ripple</i> | ≤ 10% | | | ≤ 10% | | |
| Corrente massima di carico - <i>Maximum load current</i> | 200 mA | | | 200 mA | | |
| Caduta di tensione - <i>Voltage drop</i> | ≤ 3 V @ 200 mA | | | ≤ 3 V @ 200 mA | | |
| Assorbimento - <i>Power consumption</i> | ≤ 10 mA | | | ≤ 10 mA | | |
| Ripetibilità - <i>Repeatability</i> | < 2% della portata nominale - <i>nominal sensing distance</i> | | | | | |
| Isteresi - <i>Hysteresis</i> | ≤ 10% Sn | | | ≤ 10% Sn | | |
| Frequenza di commutazione - <i>Switching frequency</i> | 1,5 kHz | 1 kHz | 1,5 kHz | 1 kHz | 1,5 kHz | |
| Protezione al corto circuito - <i>Short circuit protection</i> | Sì - Yes | | | Sì - Yes | | |
| Led di segnalazione - <i>Status output led</i> | Sì - Yes | | | Sì - Yes | | |
| Temperatura di funzionamento - <i>Working temperature</i> | -25 ÷ +70 °C | | | -25 ÷ +70 °C | | |
| Grado di protezione - <i>IP rating</i> | IP67 (con connettore montato - <i>with connector mounted</i>) | | | | | |
| Custodia - <i>Housing</i> | Ottone nichelato - <i>Nickel plated brass</i> | | | | | |
| Connessione - <i>Connection</i> | Connettore M12 M12 connector | Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | |
| Collegamento - <i>Linking</i> | C5-C6-C7-L7 | C5-C6-C7-L7 | 3 X 0,14 mm ² | 3 X 0,14 mm ² | C5-C6-C7-L7 | |
| PNP-NO | (1) | B09122POC5 | B09E124POC5 | B10G122PO | B10EG124PO | B10122POC5 |
| PNP-NC | (1) | B09122PCC5 | B09E124PCC5 | B10G122PC | B10EG124PC | B10122PCC5 |
| NPN-NO | (2) | B09122NOC5 | B09E124NOC5 | B10G122NO | B10EG124NO | B10122NOC5 |
| NPN-NC | (2) | B09122NCC5 | B09E124NCC5 | B10G122NC | B10EG124NC | B10122NCC5 |

SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

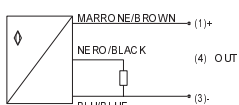


6,5-8-12-18-30 mm diameter,
10 ÷ 50 Vdc supply voltage

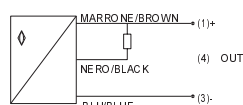
12-18-30 mm diameter.
10 ÷ 60 Vdc supply voltage

| Ø12 10 + 60 Vdc | | Ø 18 10 + 50 Vdc | | | Ø 18 10 + 60 Vdc | |
|--|--------------------------|--------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------|
| | | | | | | |
| ● | ● | ● | ● | ● | ● | ● |
| 4 mm | 5 mm | 8 mm | 5 mm | 8 mm | 5 mm | 8 mm |
| 10 ÷ 60 Vdc | 10 ÷ 50 Vdc | | | 10 ÷ 60 Vdc | | |
| ≤ 10% | ≤ 10% | | | ≤ 10% | | |
| 200 mA | 200 mA | | | 200 mA | | |
| ≤ 3 V @ 200 mA | ≤ 3 V @ 200 mA | | | ≤ 3 V @ 200 mA | | |
| ≤ 10 mA | ≤ 10 mA | | | ≤ 10 mA | | |
| < 2% della portata nominale - nominal sensing distance | | | | | | |
| ≤ 10% Sn | ≤ 10% Sn | | | ≤ 10% Sn | | |
| 1 kHz | 700 Hz | 400 Hz | 700 Hz | 400 Hz | 700 Hz | 400 Hz |
| Si - Yes | Si - Yes | | | Si - Yes | | |
| Si - Yes | Si - Yes | | | Si - Yes | | |
| -25 ÷ +70 °C | -25 ÷ +70 °C | | | -25 ÷ +70 °C | | |
| IP67 (con connettore montato - with connector mounted) | | | | | | |
| Ottone nichelato - Nickel plated brass | | | | | | |
| Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable |
| C5-C6-C7-L7 | 3 X 0,35 mm ² | 3 X 0,35 mm ² | C5-C6-C7-L7 | C5-C6-C7-L7 | 3 X 0,35 mm ² | 3 X 0,35 mm ² |
| B10E124POC5 | B09G185PO | B09EG188PO | B09185POC5 | B09E188POC5 | B10G185PO | B10EG188PO |
| B10E124PCC5 | B09G185PC | B09EG188PC | B09185PCC5 | B09E188PCC5 | B10G185PC | B10EG188PC |
| B10E124NOC5 | B09G185NO | B09EG188NO | B09185NOC5 | B09E188NOC5 | B10G185NO | B10EG188NO |
| B10E124NCC5 | B09G185NC | B09EG188NC | B09185NCC5 | B09E188NCC5 | B10G185NC | B10EG188NC |

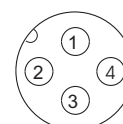
SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



① PNP

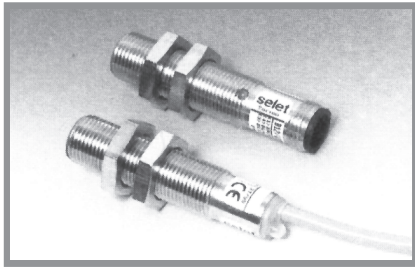


② NPN



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

C5-C6-C7-L7 CC/DC

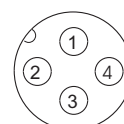
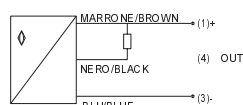
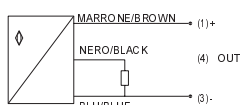


Diametri 6,5-8-12-18-30 mm
con alimentazione 10 ÷ 50 Vdc

Diametri 12-18-30 mm
con alimentazione 10 ÷ 60 Vdc

| TIPI - TYPES | Ø 18 10 + 60 Vdc | | Ø 30 10 + 50 Vdc | | | |
|--|--|---------------------------------|--------------------------|--------------------------|---------------------------------|--------------------|
| <p>10 + 50 Vdc 10 + 60 Vdc</p> <p>CARATTERISTICHE FEATURES</p> | | | | | | |
| | ● | ● | ● | ● | ● | |
| Schermato - <i>Shielded</i> | ● | ● | ● | ● | ● | |
| Non schermato - <i>Unshielded</i> | | ● | | ● | ● | |
| Portata nominale - <i>Nominal sensing distance</i> | 5 mm | 8 mm | 10 mm | 15 mm | 10 mm | |
| Tensione di alimentazione - <i>Supply voltage</i> | 10 ÷ 60 Vdc | | 10 ÷ 50 Vdc | | | |
| Ondulazione residua - <i>Ripple</i> | ≤ 10% | | ≤ 10% | | | |
| Corrente massima di carico - <i>Maximum load current</i> | 200 mA | | 200 mA | | | |
| Caduta di tensione - <i>Voltage drop</i> | ≤ 3 V @ 200 mA | | ≤ 3 V @ 200 mA | | | |
| Assorbimento - <i>Power consumption</i> | ≤ 10 mA | | ≤ 10 mA | | | |
| Ripetibilità - <i>Repeatability</i> | < 2% della portata nominale - <i>nominal sensing distance</i> | | | | | |
| Isteresi - <i>Hysteresis</i> | ≤ 10% Sn | | ≤ 10% Sn | | | |
| Frequenza di commutazione - <i>Switching frequency</i> | 700 Hz | 400 Hz | 200 Hz | 200 Hz | 200 Hz | |
| Protezione al corto circuito - <i>Short circuit protection</i> | Sì - Yes | | Sì - Yes | | | |
| Led di segnalazione - <i>Status output led</i> | Sì - Yes | | Sì - Yes | | | |
| Temperatura di funzionamento - <i>Working temperature</i> | -25 ÷ +70 °C | | -25 ÷ +70 °C | | | |
| Grado di protezione - <i>IP rating</i> | IP67 (con connettore montato - <i>with connector mounted</i>) | | | | | |
| Custodia - <i>Housing</i> | Ottone nichelato - <i>Nickel plated brass</i> | | | | | |
| Connessione - <i>Connection</i> | Connettore M12 M12 connector | Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | |
| Collegamento - <i>Linking</i> | C5-C6-C7-L7 | C5-C6-C7-L7 | 3 X 0,35 mm ² | 3 X 0,35 mm ² | C5-C6-C7-L7 | |
| PNP-NO | (1) | B10185POC5 | B10E188POC5 | B09G3010PO | B09EG3015PO | B093010POC5 |
| PNP-NC | (1) | B10185PCC5 | B10E188PCC5 | B09G3010PC | B09EG3015PC | B093010PCC5 |
| NPN-NO | (2) | B10185NOC5 | B10E188NOC5 | B09G3010NO | B09EG3015NO | B093010NOC5 |
| NPN-NC | (2) | B10185NCC5 | B10E188NCC5 | B09G3010NC | B09EG3015NC | B093010NCC5 |

SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

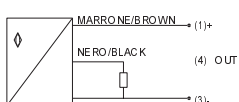


6,5-8-12-18-30 mm diameter,
10 ÷ 50 Vdc supply voltage

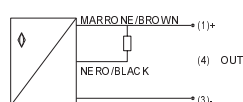
12-18-30 mm diameter.
10 ÷ 60 Vdc supply voltage

| Ø 30 10 + 50 Vdc | | Ø 30 10 + 60 Vdc | | | | |
|--|--------------------------|--------------------------|---------------------------------|---------------------------------|--------|--|
| | | | | | | |
| ● | ● | ● | ● | ● | ● | |
| 15 mm | 10 mm | 15 mm | 10 mm | 15 mm | | |
| 10 ÷ 60 Vdc | 10 ÷ 60 Vdc | | | | | |
| ≤ 10% | ≤ 10% | | | | | |
| 200 mA | 200 mA | | | | | |
| ≤ 3 V @ 200 mA | ≤ 3 V @ 200 mA | | | | | |
| ≤ 10 mA | ≤ 10 mA | | | | | |
| < 2% della portata nominale - nominal sensing distance | | | | | | |
| ≤ 10% Sn | ≤ 10% Sn | | | | | |
| 1 kHz | 200 Hz | 200 Hz | 200 Hz | 200 Hz | 200 Hz | |
| Sì - Yes | Sì - Yes | | | | | |
| Sì - Yes | Sì - Yes | | | | | |
| -25 ÷ +70 °C | -25 ÷ +70 °C | | | | | |
| IP67 (con connettore montato - with connector mounted) | | | | | | |
| Ottone nichelato - Nickel plated brass | | | | | | |
| Connettore M12 M12 connector | Cavo 2 m 2 m cable | Cavo 2 m 2 m cable | Connettore M12 M12 connector | Connettore M12 M12 connector | | |
| C5-C6-C7-L7 | 3 X 0,35 mm ² | 3 X 0,35 mm ² | C5-C6-C7-L7 | C5-C6-C7-L7 | | |
| B09E3015POC5 | B10G3010PO | B10EG3015PO | B103010POC5 | B10E3015POC5 | | |
| B09E3015PCC5 | B10G3010PC | B10EG3015PC | B103010PCC5 | B10E3015PCC5 | | |
| B09E3015NOC5 | B10G3010NO | B10EG3015NO | B103010NOC5 | B10E3015NOC5 | | |
| B09E3015NCC5 | B10G3010NC | B10EG3015NC | B103010NCC5 | B10E3015NCC5 | | |

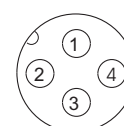
SCHEMI DI COLLEGAMENTO - CONNECTION DIAGRAMS



① PNP



② NPN



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

C5-C6-C7-L7 CC/DC