

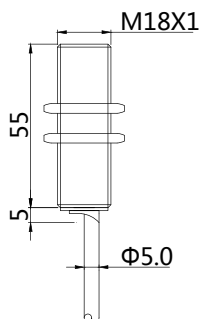


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8/12mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

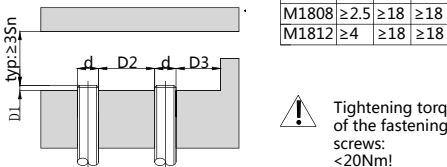


Model No.

| Sensing range | Sn: 8 mm | Sn: 12 mm |
|---------------|-----------------|-----------------|
| NPN N. O | BB-M1808N-C11P2 | BB-M1812N-C11P2 |
| NPN N. C | BB-M1808N-C21P2 | BB-M1812N-C21P2 |
| PNP N. O | BB-M1808P-C11P2 | BB-M1812P-C11P2 |
| PNP N. C | BB-M1808P-C21P2 | BB-M1812P-C21P2 |

Mounting

(flush/quasi-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|------------|-----------|-----------|
| M1808 | ≥ 2.5 | ≥ 18 | ≥ 18 |
| M1812 | ≥ 4 | ≥ 18 | ≥ 18 |

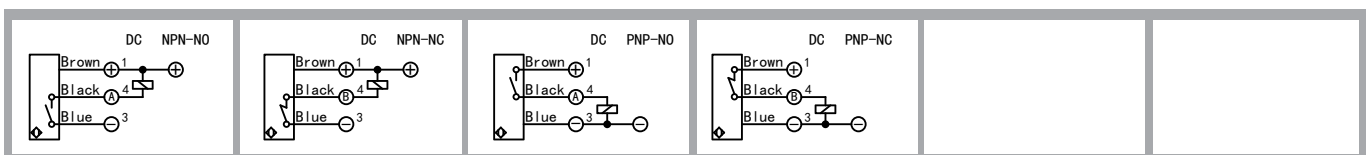
⚠ Tightening torque of the fastening screws: $< 20\text{Nm}$!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz/800Hz |
| | Voltage drop | $\leq 2.0\text{V}$ |
| | Leakage current | $< 0.01\text{mA}$ |
| | Load current | 200mA |
| | No load current | $\leq 10\text{mA}(24\text{V})$ |
| | Hysteresis | $< 15\%(\text{Sr})$ |
| | Repeatability | $< 1.0\%(\text{Sr})$ |
| | Temperature drift | $< 10\%(\text{Sr})$ |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | $-25\text{...}70^\circ\text{C}$ |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; $3 \times 0.35\text{mm}^2$ |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



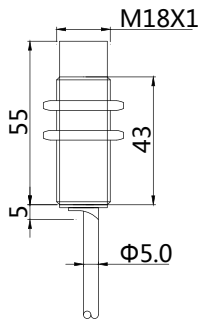


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 16/20mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



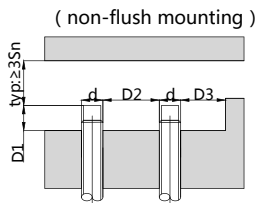
Dimensioned drawing



Model No.

| Sensing range | Sn:16 mm | Sn:20 mm |
|---------------|------------------------|------------------------|
| NPN N. O | BN-M1816N-C11P2 | BN-M1820N-C11P2 |
| NPN N. C | BN-M1816N-C21P2 | BN-M1820N-C21P2 |
| PNP N. O | BN-M1816P-C11P2 | BN-M1820P-C11P2 |
| PNP N. C | BN-M1816P-C21P2 | BN-M1820P-C21P2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |
| M1820 | ≥25 | ≥54 | ≥18 |

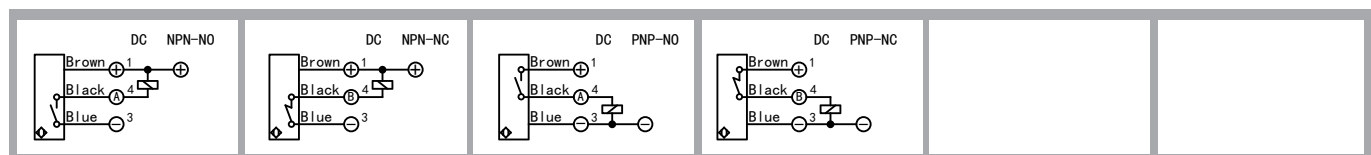
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | Factor |
|-------------------|-----------|
| Non-ferrous metal | 1 |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|--------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 500Hz/400Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



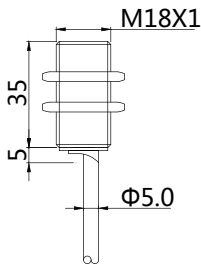


Features:

- M18*1 mm short body , Brass,nickel-plated housing;
- 8/12mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

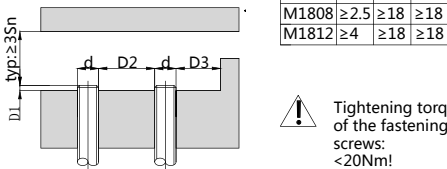


Model No.

| Sensing range | Sn: 8 mm | Sn: 12 mm |
|---------------|-------------------|-------------------|
| NPN N. O | BB-M1808N-C11P2-S | BB-M1812N-C11P2-S |
| NPN N. C | BB-M1808N-C21P2-S | BB-M1812N-C21P2-S |
| PNP N. O | BB-M1808P-C11P2-S | BB-M1812P-C11P2-S |
| PNP N. C | BB-M1808P-C21P2-S | BB-M1812P-C21P2-S |

Mounting

(flush/quasi-flush mounting)



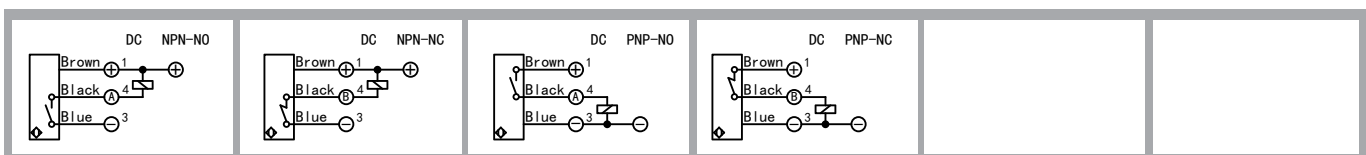
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|--------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz/800Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



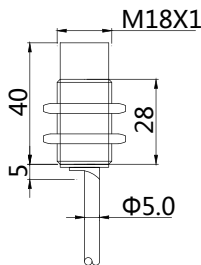


Features:

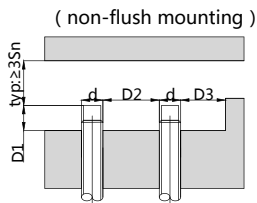
- M18*1 mm short body , Brass,nickel-plated housing;
- 16/20mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |
| M1820 | ≥25 | ≥54 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

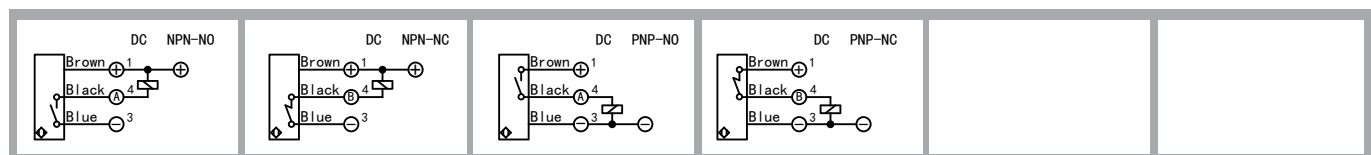
Model No.

| Sensing range | Sn:16 mm | Sn:20 mm |
|---------------|-------------------|-------------------|
| NPN N. O | BN-M1816N-C11P2-S | BN-M1820N-C11P2-S |
| NPN N. C | BN-M1816N-C21P2-S | BN-M1820N-C21P2-S |
| PNP N. O | BN-M1816P-C11P2-S | BN-M1820P-C11P2-S |
| PNP N. C | BN-M1816P-C21P2-S | BN-M1820P-C21P2-S |

Technical data

| | | |
|------------------------------|------------------------------|--------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 500Hz/400Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



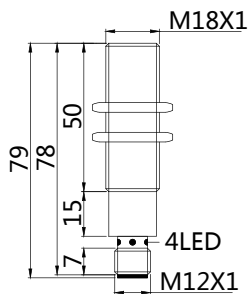


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8/12mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

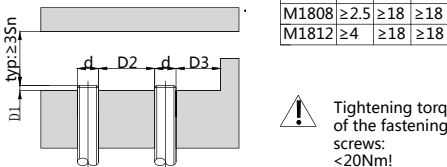


Model No.

| Sensing range | Sn: 8 mm | Sn: 12 mm |
|---------------|-------------------------|-------------------------|
| NPN N. O | BB-M1808N-C11S12 | BB-M1812N-C11S12 |
| NPN N. C | BB-M1808N-C21S12 | BB-M1812N-C21S12 |
| PNP N. O | BB-M1808P-C11S12 | BB-M1812P-C11S12 |
| PNP N. C | BB-M1808P-C21S12 | BB-M1812P-C21S12 |

Mounting

(flush/quasi-flush mounting)



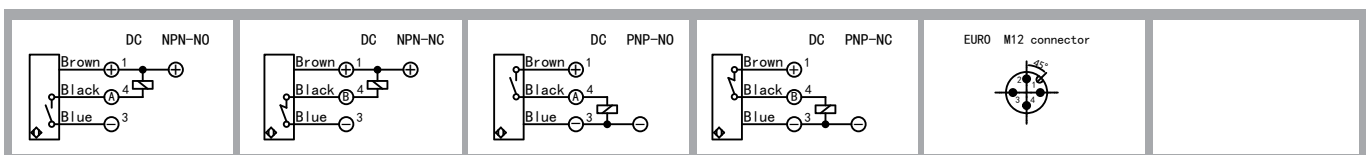
| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |
| M1812 | ≥4 | ≥18 | ≥18 |

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz/800Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring



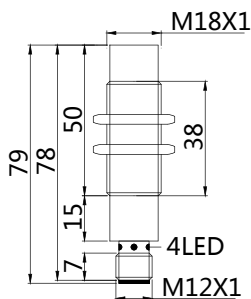


Features:

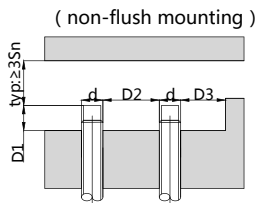
- M18*1 mm , Brass,nickel-plated housing;
- 16/20mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |
| M1820 | ≥25 | ≥54 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | Factor |
|-------------------|-----------|
| Non-ferrous metal | 1 |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

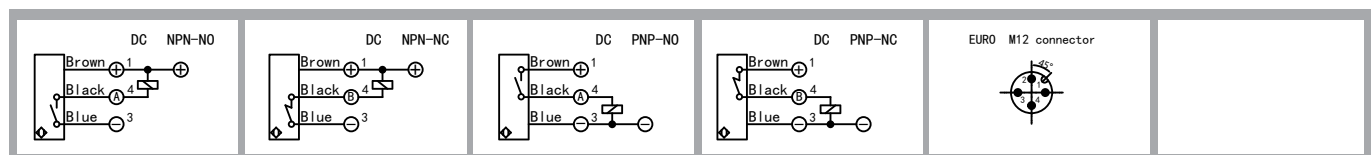
Model No.

| Sensing range | Sn:16 mm | Sn:20 mm |
|---------------|------------------|------------------|
| NPN N. O | BN-M1816N-C11S12 | BN-M1820N-C11S12 |
| NPN N. C | BN-M1816N-C21S12 | BN-M1820N-C21S12 |
| PNP N. O | BN-M1816P-C11S12 | BN-M1820P-C11S12 |
| PNP N. C | BN-M1816P-C21S12 | BN-M1820P-C21S12 |

Technical data

| | | |
|------------------------------|------------------------------|--|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 500Hz/400Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4W V2 (to be ordered separately) |

Wiring

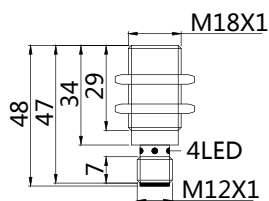


Features:

- M18*1 mm short body , Brass,nickel-plated housing;
- 8/12mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

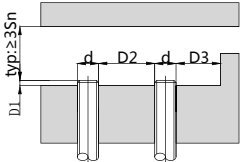


Model No.

| Sensing range | Sn:8 mm | Sn:12 mm |
|---------------|---------------------------|---------------------------|
| NPN N. O | BB-M1808N-C11S12-S | BB-M1812N-C11S12-S |
| NPN N. C | BB-M1808N-C21S12-S | BB-M1812N-C21S12-S |
| PNP N. O | BB-M1808P-C11S12-S | BB-M1812P-C11S12-S |
| PNP N. C | BB-M1808P-C21S12-S | BB-M1812P-C21S12-S |

Mounting

(flush/quasi-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |
| M1812 | ≥4 | ≥18 | ≥18 |

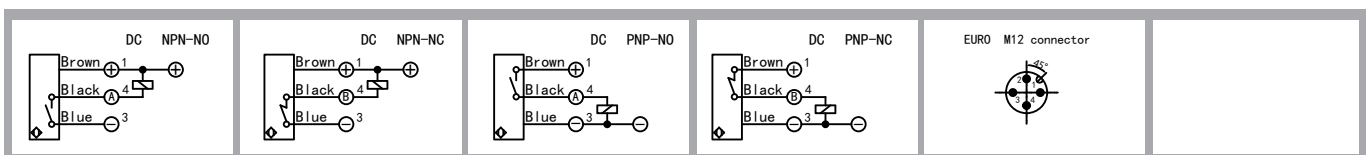
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | Factor |
|-------------------|-----------|
| Nav-ferrous metal | 1 |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz/800Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring

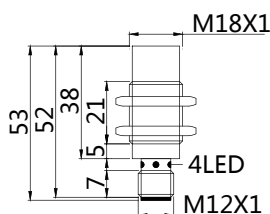


Features:

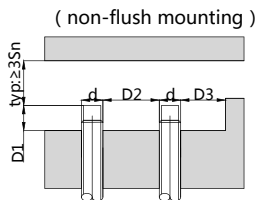
- M18*1 mm short body , Brass,nickel-plated housing;
- 16/20mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |
| M1820 | ≥25 | ≥54 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

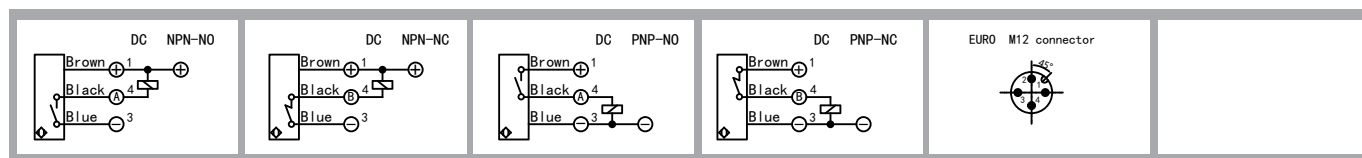
Model No.

| Sensing range | Sn:16 mm | Sn:20 mm |
|---------------|--------------------|--------------------|
| NPN N. O | BN-M1816N-C11S12-S | BN-M1820N-C11S12-S |
| NPN N. C | BN-M1816N-C21S12-S | BN-M1820N-C21S12-S |
| PNP N. O | BN-M1816P-C11S12-S | BN-M1820P-C11S12-S |
| PNP N. C | BN-M1816P-C21S12-S | BN-M1820P-C21S12-S |

Technical data

| | | |
|------------------------------|------------------------------|--|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 500Hz/400Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4W V2 (to be ordered separately) |

Wiring



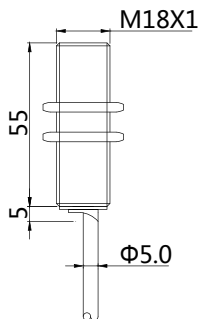


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , flush mountable;
- DC 2-wire , switching output;
- Cable



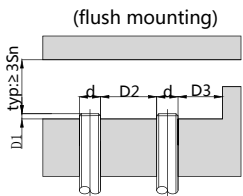
Dimensioned drawing



Model No.

| | |
|---------------|-----------------|
| Sensing range | Sn:8 mm |
| N. O | BB-M1808C-C13P2 |
| N. C | BB-M1808C-C23P2 |

Mounting



| | | | |
|-------|------|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-------------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 500Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | PVC cable/2m ; 2*0.5mm ² |
| Accessories | Accessories | NO |

(to be ordered separately)

Wiring



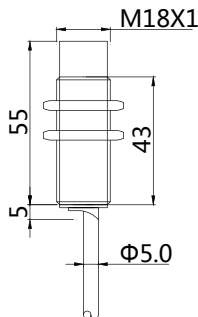


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 16mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable

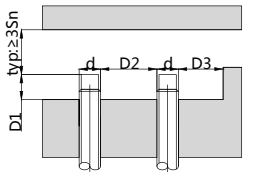


Dimensioned drawing



Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn:16 mm |
|---------------|-----------------|
| N.O | BN-M1816C-C13P2 |
| N.C | BN-M1816C-C23P2 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 300Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | PVC cable,2m,2*0.5mm ² |
| Accessories | Accessories | NO |

(to be ordered separately)

Wiring



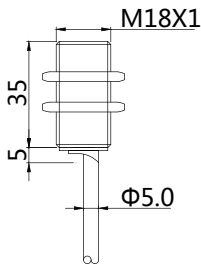


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , flush mountable;
- DC 2-wire , switching output;
- Cable



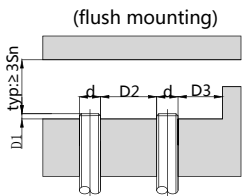
Dimensioned drawing



Model No.

| Sensing range | Sn:8 mm |
|---------------|-------------------|
| N. O | BB-M1808C-C13P2-S |
| N. C | BB-M1808C-C23P2-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-------------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 500Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | PVC cable/2m ; 2*0.5mm ² |
| Accessories | Accessories | NO |

(to be ordered separately)

Wiring



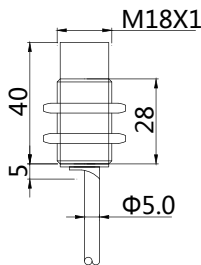


Features:

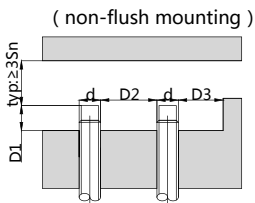
- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 16mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn:16 mm |
|---------------|-------------------|
| N.O | BN-M1816C-C13P2-S |
| N.C | BN-M1816C-C23P2-S |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 300Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | PVC cable/2m,2*0.5mm ² |
| Accessories | Accessories | NO |

(to be ordered separately)

Wiring



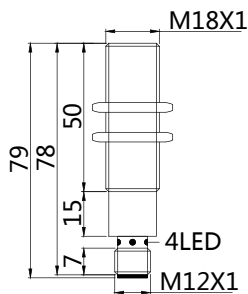


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



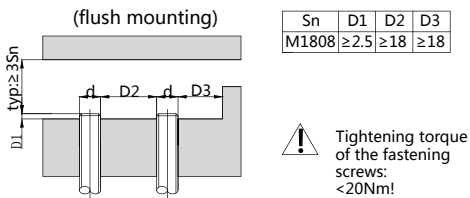
Dimensioned drawing



Model No.

| Sensing range | Sn:8 mm |
|---------------|------------------|
| N. O | BB-M1808C-C13S12 |
| N. C | BB-M1808C-C23S12 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 500Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring



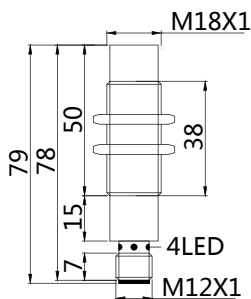


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 16mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions

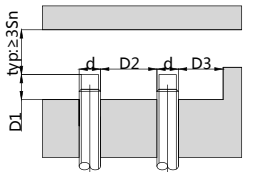


Dimensioned drawing



Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn:16 mm |
|---------------|------------------|
| N. O | BN-M1816C-C13S12 |
| N. C | BN-M1816C-C23S12 |

Technical data

| | | |
|------------------------------|------------------------------|---------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 300Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | (to be ordered separately) | |

Wiring

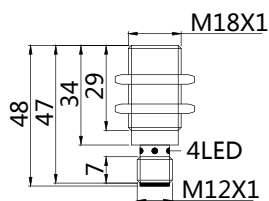


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



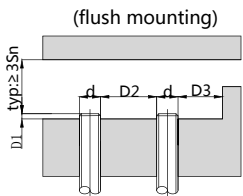
Dimensioned drawing



Model No.

| Sensing range | Sn : 8 mm |
|---------------|---------------------------|
| N. O | BB-M1808C-C13S12-S |
| N. C | BB-M1808C-C23S12-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

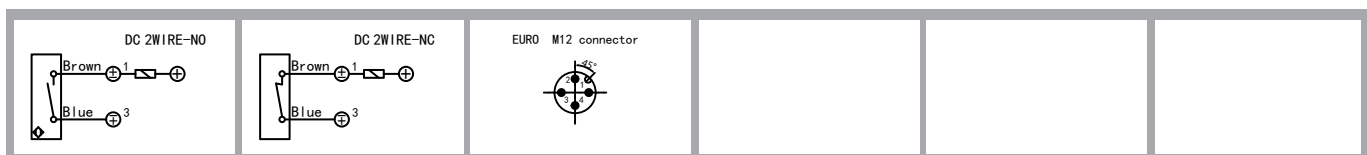
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 500Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | (to be ordered separately) | |

Wiring

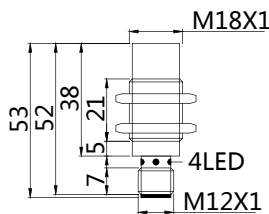


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 16mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



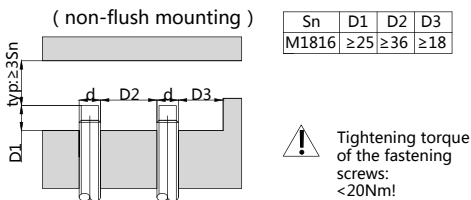
Dimensioned drawing



Model No.

| | |
|---------------|--------------------|
| Sensing range | Sn:16 mm |
| N. O | BN-M1816C-C13S12-S |
| N. C | BN-M1816C-C23S12-S |

Mounting

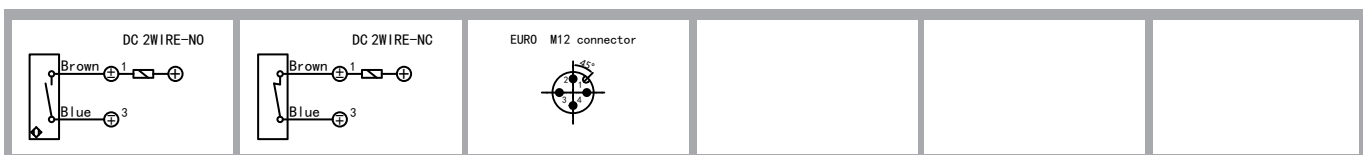


| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 300Hz |
| | Voltage drop | ≤4.5V |
| | Load current | 200mA |
| | Leakge current | ≤0.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Brass,nickel-plated |
| Electrical connection | Face material | PBT |
| | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring



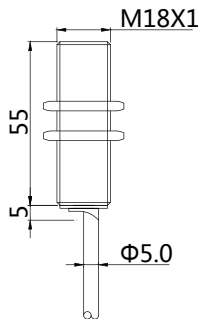


Features:

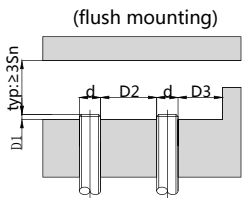
- M18*1 mm , Brass,nickel-plated housing;
- 8mm , flush mountable;
- DC 4-wire , switching output;
- Cable



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn:8 mm |
|---------------|------------------------|
| NPN N. O+N. C | BB-M1808N-C31P2 |
| PNP N. O+N. C | BB-M1808P-C31P2 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--------------------------------------|
| | Switching frequency | 3000Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 4*0.25mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



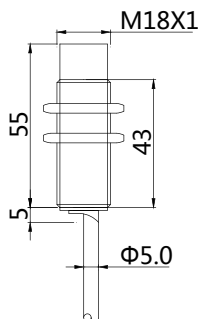


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 16mm , non-flush mountable;
- DC 4-wire , switching output;
- Cable



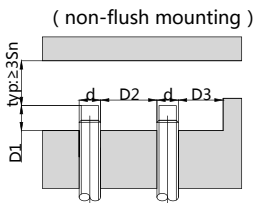
Dimensioned drawing



Model No.

| | |
|----------------|------------------------|
| Sensing range | Sn:16 mm |
| NPN N. O.+N. C | BN-M1816N-C31P2 |
| PNP N. O.+N. C | BN-M1816P-C31P2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--------------------------------------|
| | Switching frequency | 300Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 4*0.25mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



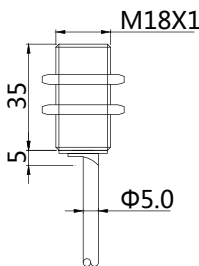


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , flush mountable;
- DC 4-wire , switching output;
- Cable



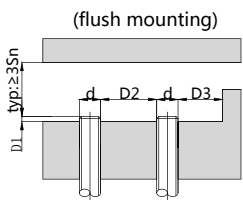
Dimensioned drawing



Model No.

| | |
|---------------|--------------------------|
| Sensing range | Sn:8 mm |
| NPN N.O+N.C | BB-M1808N-C31P2-S |
| PNP N.O+N.C | BB-M1808P-C31P2-S |

Mounting



| | | | |
|-------|------|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--------------------------------------|
| | Switching frequency | 3000Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 4*0.25mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



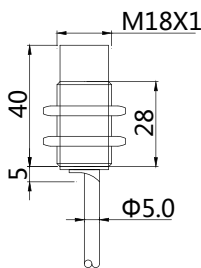


Features :

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 16mm , non-flush mountable;
- DC 4-wire , switching output;
- Cable



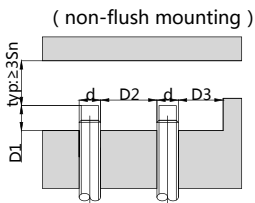
Dimensioned drawing



Model No.

| | |
|---------------|--------------------------|
| Sensing range | Sn:16 mm |
| NPN N. O+N. C | BN-M1816N-C31P2-S |
| PNP N. O+N. C | BN-M1816P-C31P2-S |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--------------------------------------|
| | Switching frequency | 300Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 4*0.25mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



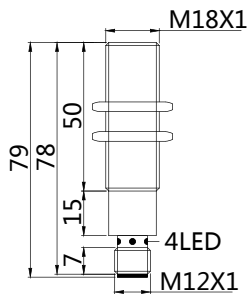


Features:

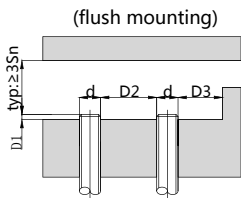
- M18*1 mm , Brass,nickel-plated housing;
- 8mm , flush mountable;
- DC 4-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn:8 mm |
|---------------|-------------------------|
| NPN N. O+N. C | BB-M1808N-C31S12 |
| PNP N. O+N. C | BB-M1808P-C31S12 |

Technical data

| | | |
|------------------------------|------------------------------|---|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring



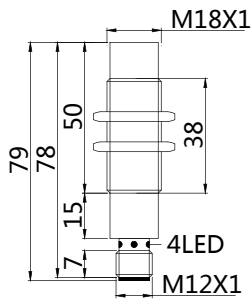


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 16mm , non-flush mountable;
- DC 4-wire , switching output;
- Connector versions



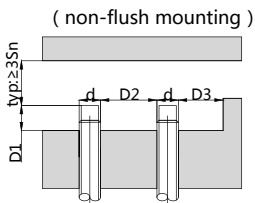
Dimensioned drawing



Model No.

| | |
|---------------|-------------------------|
| Sensing range | Sn:16 mm |
| NPN N. O+N. C | BN-M1816N-C31S12 |
| PNP N. O+N. C | BN-M1816P-C31S12 |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|---|
| | Switching frequency | 300Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring

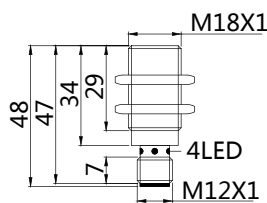


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , flush mountable;
- DC 4-wire , switching output;
- Connector versions



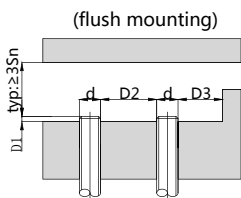
Dimensioned drawing



Model No.

| | |
|---------------|--------------------|
| Sensing range | Sn:8 mm |
| NPN N.O+N.C | BB-M1808N-C31S12-S |
| PNP N.O+N.C | BB-M1808P-C31S12-S |

Mounting



| | | | |
|-------|------|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

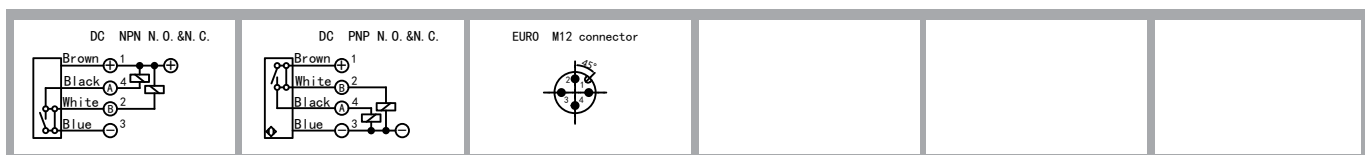
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | Factor |
|-------------------|-----------|
| Nav-ferrous metal | 1 |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|---|
| | Switching frequency | 3000Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 (to be ordered separately) |

Wiring

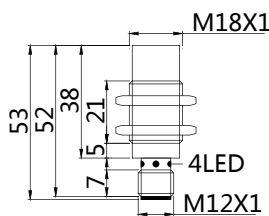


Features:

- M18*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 16mm , non-flush mountable;
- DC 4-wire , switching output;
- Connector versions



Dimensioned drawing

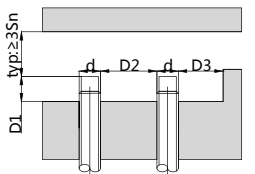


Model No.

| Sensing range | Sn:16 mm |
|---------------|---------------------------|
| NPN N. O+N. C | BN-M1816N-C31S12-S |
| PNP N. O+N. C | BN-M1816P-C31S12-S |

Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 300Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



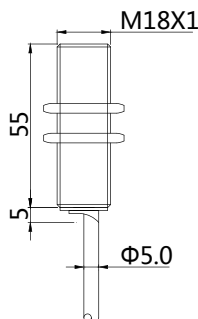


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 5/8mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



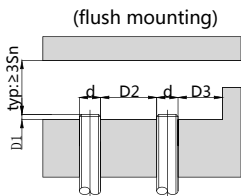
Dimensioned drawing



Model No.

| Sensing range | Sn: 5 mm | Sn: 8 mm |
|---------------|-----------------|-----------------|
| N. O | BB-M1805A-C14P2 | BB-M1808A-C14P2 |
| N. C | BB-M1805A-C24P2 | BB-M1808A-C24P2 |
| N. O | BB-M1805U-C15P2 | BB-M1808U-C15P2 |
| N. C | BB-M1805U-C25P2 | BB-M1808U-C25P2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm² |
| Accessories | Accessories | NO |
| | (to be ordered separately) | |

Wiring



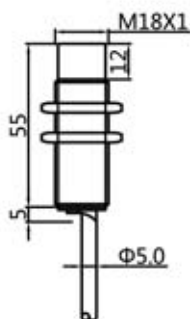


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8/16mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



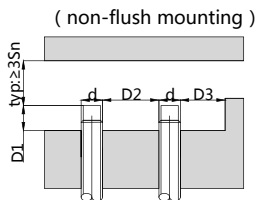
Dimensioned drawing



Model No.

| Sensing range | Sn: 8 mm | Sn: 16 mm |
|---------------|------------------------|------------------------|
| N. O | BN-M1808A-C14P2 | BN-M1816A-C14P2 |
| N. C | BN-M1808A-C24P2 | BN-M1816A-C24P2 |
| N. O | BN-M1808U-C15P2 | BN-M1816U-C15P2 |
| N. C | BN-M1808U-C25P2 | BN-M1816U-C25P2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakage current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



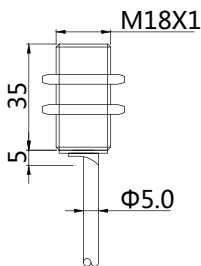


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 5mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



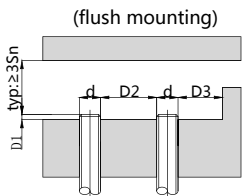
Dimensioned drawing



Model No.

| Sensing range | | Sn: 5 mm |
|---------------|--|-------------------|
| N. O | | BB-M1805A-C14P2-S |
| N. C | | BB-M1805A-C24P2-S |
| N. O | | BB-M1805U-C15P2-S |
| N. C | | BB-M1805U-C25P2-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|----|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|--------------------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



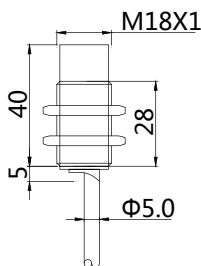


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



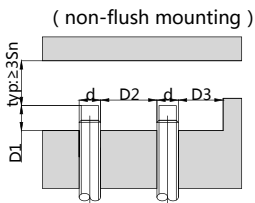
Dimensioned drawing



Model No.

| Sensing range | | Sn: 8 mm |
|---------------|--|--------------------------|
| N. O | | BN-M1808A-C14P2-S |
| N. C | | BN-M1808A-C24P2-S |
| N. O | | BN-M1808U-C15P2-S |
| N. C | | BN-M1808U-C25P2-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|--------------------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



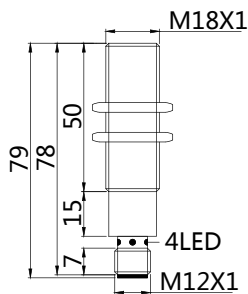


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 5/8mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



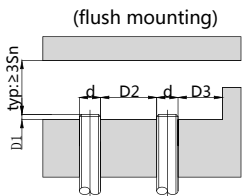
Dimensioned drawing



Model No.

| Sensing range | Sn: 5 mm | Sn: 8 mm |
|---------------|------------------|------------------|
| N. O | BB-M1805A-C14S12 | BB-M1808A-C14S12 |
| N. C | BB-M1805A-C24S12 | BB-M1808A-C24S12 |
| N. O | BB-M1805U-C15S12 | BB-M1808U-C15S12 |
| N. C | BB-M1805U-C25S12 | BB-M1808U-C25S12 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

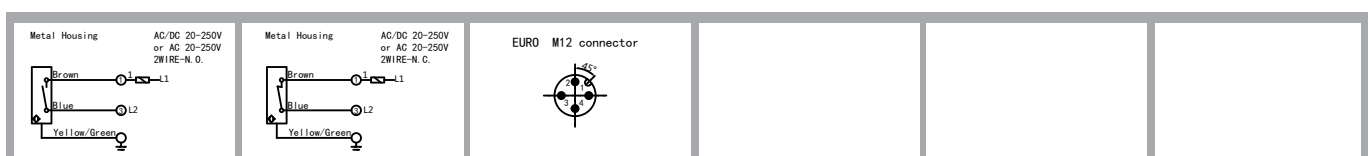
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakage current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



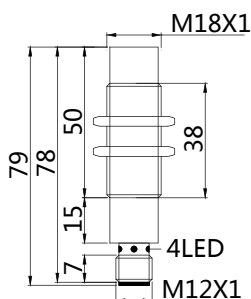


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8/16mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions

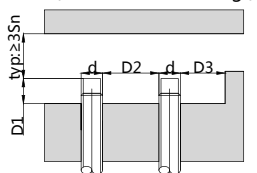


Dimensioned drawing



Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |
| M1816 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

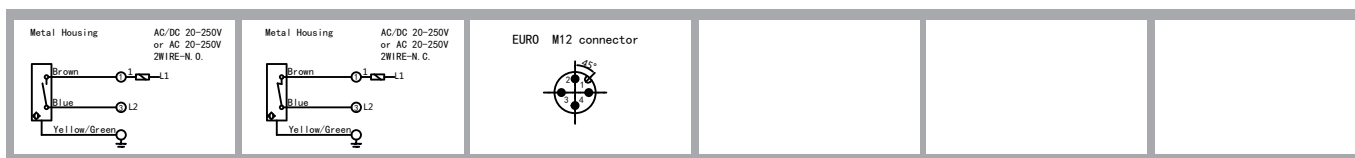
Model No.

| Sensing range | Sn:8 mm | Sn:16 mm |
|---------------|------------------|------------------|
| N. O | BN-M1808A-C14S12 | BN-M1816A-C14S12 |
| N. C | BN-M1808A-C24S12 | BN-M1816A-C24S12 |
| N. O | BN-M1808U-C15S12 | BN-M1816U-C15S12 |
| N. C | BN-M1808U-C25S12 | BN-M1816U-C25S12 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring

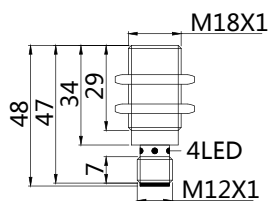


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 5mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



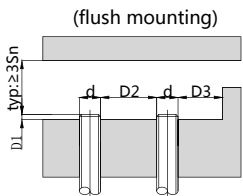
Dimensioned drawing



Model No.

| Sensing range | Sn: 5 mm |
|---------------|--------------------|
| N. O | BB-M1805A-C14S12-S |
| N. C | BB-M1805A-C24S12-S |
| N. O | BB-M1805U-C15S12-S |
| N. C | BB-M1805U-C25S12-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

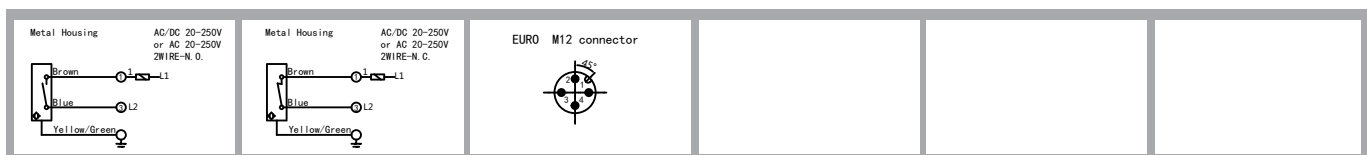
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | (to be ordered separately) | |

Wiring

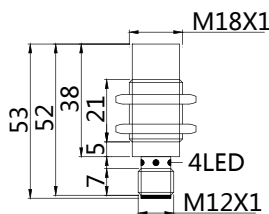


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



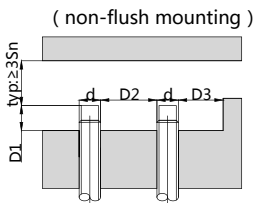
Dimensioned drawing



Model No.

| Sensing range | Sn : 8 mm |
|---------------|---------------------------|
| N. O | BN-M1808A-C14S12-S |
| N. C | BN-M1808A-C24S12-S |
| N. O | BN-M1808U-C15S12-S |
| N. C | BN-M1808U-C25S12-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥25 | ≥36 | ≥18 |
| M1816 | ≥25 | ≥36 | ≥18 |

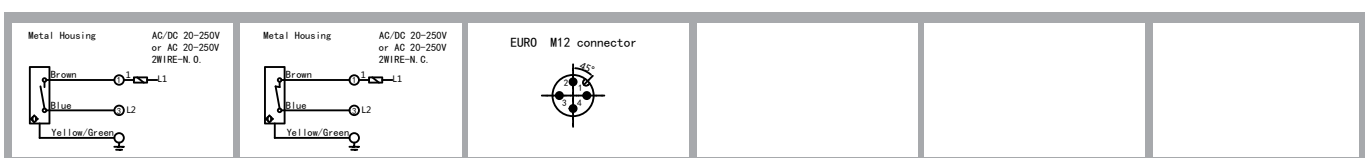
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 20-250V AC/20-250V AC/DC |
| | Switching frequency | 25Hz/25Hz AC;40Hz DC |
| | Voltage drop | ≤8V AC/≤10V AC,8V DC |
| | Load current | Max.load:400mA;min.Load:5mA |
| | | Max.load:200mA;min.Load:5mA |
| | Leakge current | ≤1.8mA/≤2.5mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



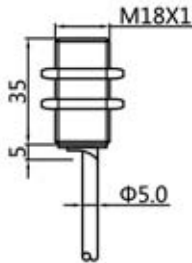


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 5mm , flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable



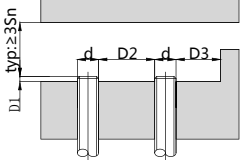
Dimensioned drawing



Mounting

(flush/quasi-flush mounting)

| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |



⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

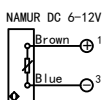
Model No.

| | |
|---------------|------------------|
| Sensing range | Sn:5 mm |
| N. 0 | BB-M1805NA-C10P2 |

Technical data

| | | |
|------------------------------|---------------------|-------------------------------------|
| Electrical data | Operating voltage | 6-12V DC |
| | Switching frequency | 1000Hz |
| | Leakge current | >2.2mA(OFF), <1.1mA(ON) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <2.0%(Sr) |
| | Power-up delay | ≤10ms |
| | Temperature drift | <10%(Sr) |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 2*0.5mm ² |
| Accessories | Accessories | NO (to be ordered separately) |

Wiring



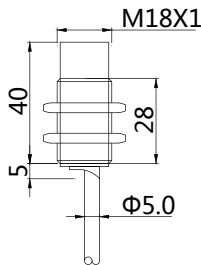


Features :

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable



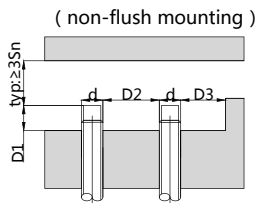
Dimensioned drawing



Model No.

| | |
|---------------|------------------|
| Sensing range | Sn:8 mm |
| N. 0 | BN-M1808NA-C10P2 |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥25 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|---------------------|-------------------------------------|
| Electrical data | Operating voltage | 6-12V DC |
| | Switching frequency | 300Hz |
| | Leakge current | >2.2mA(OFF), <1.1mA(ON) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <2.0%(Sr) |
| | Power-up delay | ≤10ms |
| | Temperature drift | <10%(Sr) |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m ; 2*0.5mm ² |
| Accessories | Accessories | NO (to be ordered separately) |

Wiring

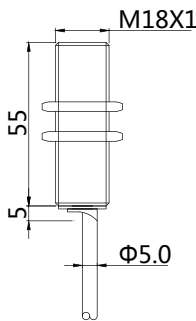


Features:

- M18*1 mm , Full stainless steel housing;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Cable



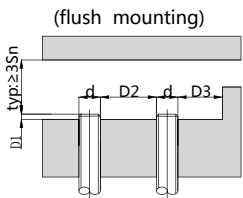
Dimensioned drawing



Model No.

| Sensing range | Sn: 5 mm | Sn: 8 mm |
|---------------|-------------------------|-------------------------|
| NPN N. O | BFB-M1805N-V11P2 | BFB-M1808N-V11P2 |
| NPN N. C | BFB-M1805N-V21P2 | BFB-M1808N-V21P2 |
| PNP N. O | BFB-M1805P-V11P2 | BFB-M1808P-V11P2 |
| PNP N. C | BFB-M1805P-V21P2 | BFB-M1808P-V21P2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

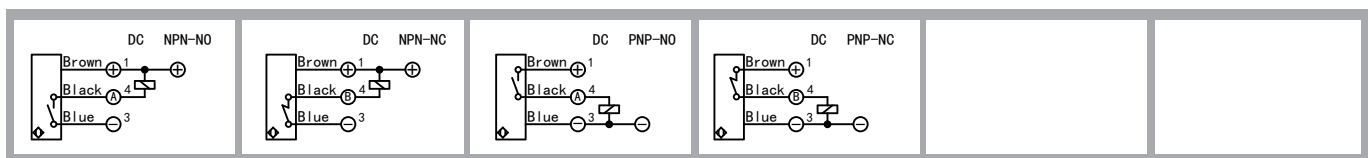
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | PVC cable/2m,3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring

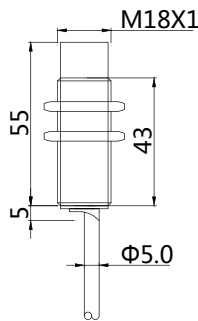


Features :

- M18*1 mm , Full stainless steel housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

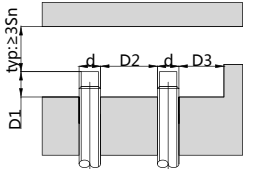


Model No.

| Sensing range | Sn:8 mm |
|---------------|-------------------------|
| NPN N. O | BFN-M1808N-V11P2 |
| NPN N. C | BFN-M1808N-V21P2 |
| PNP N. O | BFN-M1808P-V11P2 |
| PNP N. C | BFN-M1808P-V21P2 |

Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

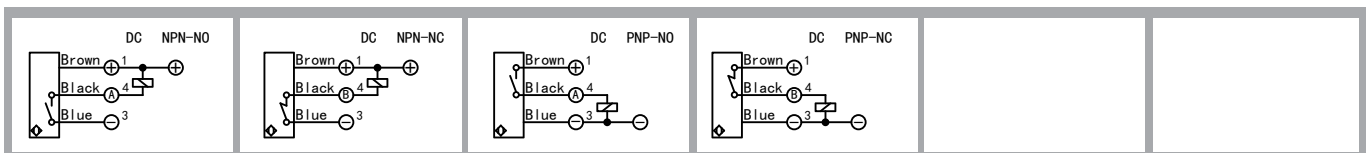
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 100mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | PVC cable/2m,3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring

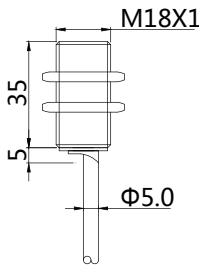


Features:

- M18*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Cable



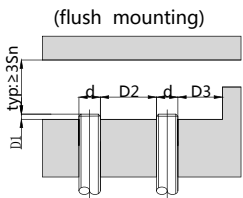
Dimensioned drawing



Model No.

| Sensing range | Sn: 5 mm | Sn: 8 mm |
|---------------|---------------------------|---------------------------|
| NPN N. O | BFB-M1805N-V11P2-S | BFB-M1808N-V11P2-S |
| NPN N. C | BFB-M1805N-V21P2-S | BFB-M1808N-V21P2-S |
| PNP N. O | BFB-M1805P-V11P2-S | BFB-M1808P-V11P2-S |
| PNP N. C | BFB-M1805P-V21P2-S | BFB-M1808P-V21P2-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

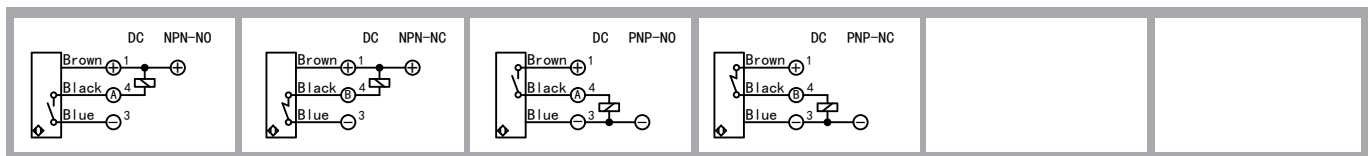
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | PVC cable/2m,3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



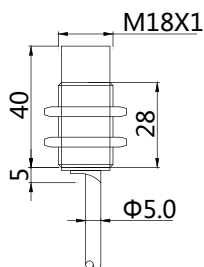


Features:

- M18*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

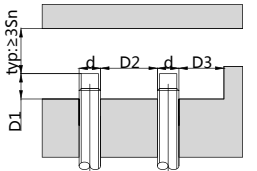


Model No.

| Sensing range | Sn: 8 mm |
|---------------|---------------------------|
| NPN N. O | BFN-M1808N-V11P2-S |
| NPN N. C | BFN-M1808N-V21P2-S |
| PNP N. O | BFN-M1808P-V11P2-S |
| PNP N. C | BFN-M1808P-V21P2-S |

Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

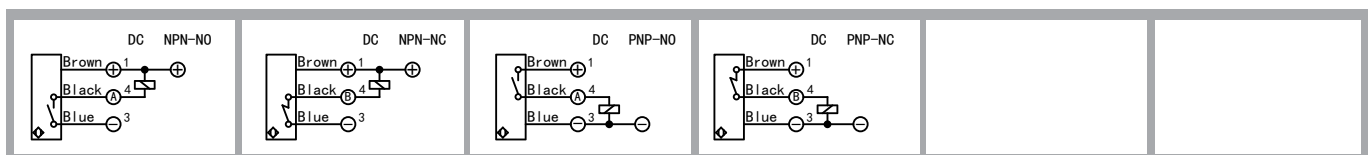
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | PVC cable/2m,3*0.35mm² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring

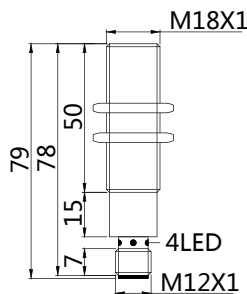


Features:

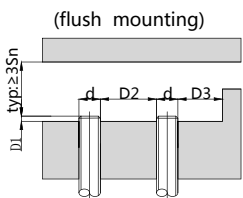
- M18*1 mm , Full stainless steel housing;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~0.1 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

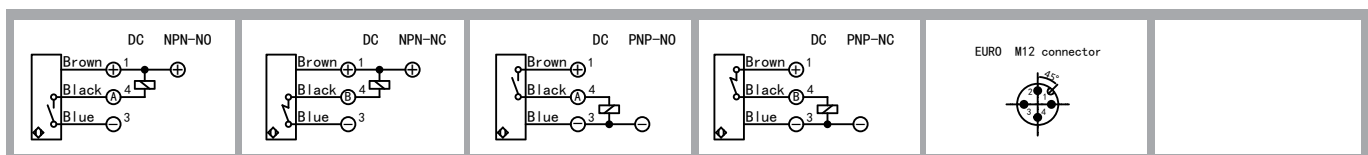
Model No.

| Sensing range | Sn:5 mm | Sn:8 mm |
|---------------|--------------------------|--------------------------|
| NPN N. O | BFB-M1805N-V11S12 | BFB-M1808N-V11S12 |
| NPN N. C | BFB-M1805N-V21S12 | BFB-M1808N-V21S12 |
| PNP N. O | BFB-M1805P-V11S12 | BFB-M1808P-V11S12 |
| PNP N. C | BFB-M1805P-V21S12 | BFB-M1808P-V21S12 |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring

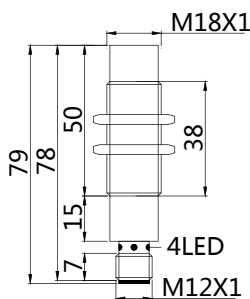


Features:

- M18*1 mm , Full stainless steel housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

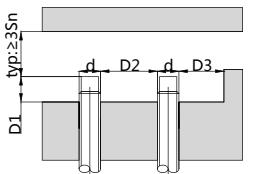


Model No.

| Sensing range | Sn:8 mm |
|---------------|--------------------------|
| NPN N. O | BFN-M1808N-V11S12 |
| NPN N. C | BFN-M1808N-V21S12 |
| PNP N. O | BFN-M1808P-V11S12 |
| PNP N. C | BFN-M1808P-V21S12 |

Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

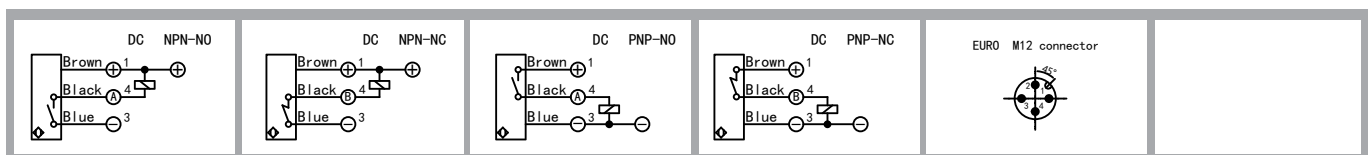
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring

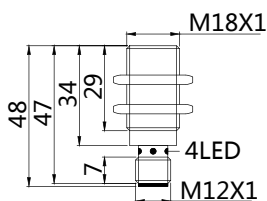


Features:

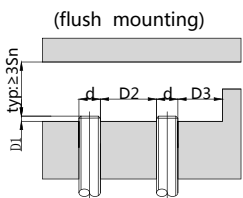
- M18*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1805 | ≥0 | ≥18 | ≥18 |
| M1808 | ≥2.5 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

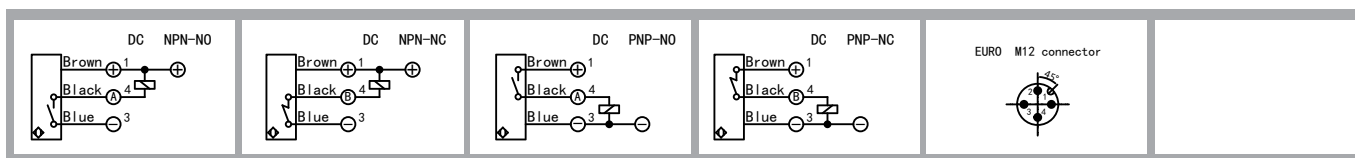
Model No.

| Sensing range | Sn: 5 mm | Sn: 8 mm |
|---------------|----------------------------|----------------------------|
| NPN N. O | BFB-M1805N-V11S12-S | BFB-M1808N-V11S12-S |
| NPN N. C | BFB-M1805N-V21S12-S | BFB-M1808N-V21S12-S |
| PNP N. O | BFB-M1805P-V11S12-S | BFB-M1808P-V11S12-S |
| PNP N. C | BFB-M1805P-V21S12-S | BFB-M1808P-V21S12-S |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring

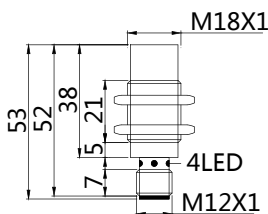


Features :

- M18*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



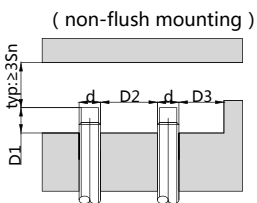
Dimensioned drawing



Model No.

| Sensing range | Sn:8 mm |
|---------------|----------------------------|
| NPN N. O | BFN-M1808N-V11S12-S |
| NPN N. C | BFN-M1808N-V21S12-S |
| PNP N. O | BFN-M1808P-V11S12-S |
| PNP N. C | BFN-M1808P-V21S12-S |

Mounting



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

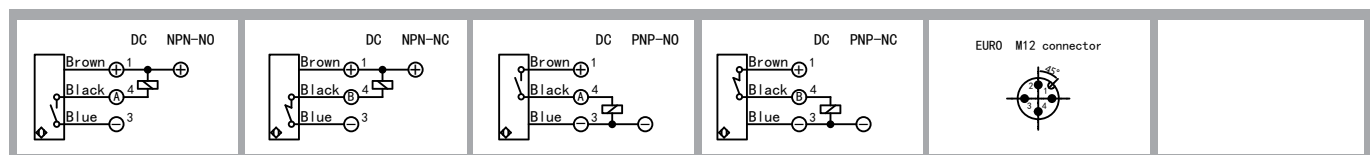
⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤2.0V |
| | Leakage current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



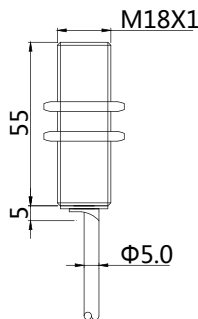


Features:

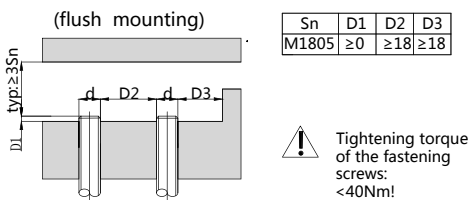
- M18*1 mm , Full stainless steel housing;
- 5mm , flush mountable;
- DC 2-wire , switching output;
- Cable



Dimensioned drawing



Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| | |
|---------------|------------------|
| Sensing range | Sn: 5 mm |
| N. O | BFB-M1805C-V13P2 |
| N. C | BFB-M1805C-V23P2 |

Technical data

| | | |
|------------------------------|------------------------------|-------------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤4.5V |
| | Leakage current | ≤0.8mA |
| | Load current | 200mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Stainless steel |
| Electrical connection | Face material | Stainless steel |
| | Connectors | PVC cable/2m ; 2*0.5mm ² |
| Accessories | Accessories | NO |
| | (to be ordered separately) | |

Wiring



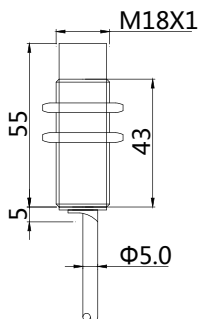


Features:

- M18*1mm , Full stainless steel housing;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



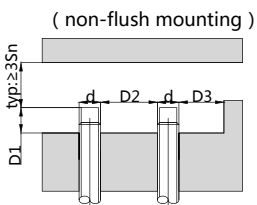
Dimensioned drawing



Model No.

| | |
|---------------|------------------|
| Sensing range | Sn:8 mm |
| N. O | BFN-M1808C-V13P2 |
| N. C | BFN-M1808C-V23P2 |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|----------------------------|-----------------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤1.5V |
| | Leakge current | ≤0.8mA |
| | Load current | 200mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | PVC cable/2m,2*0.5mm ² |
| Accessories | Accessories | NO |
| | (to be ordered separately) | |

Wiring



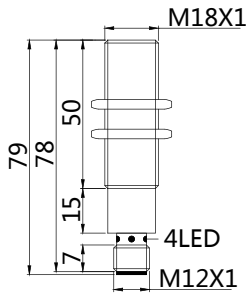


Features:

- M18*1 mm , Full stainless steel housing;
- 5mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



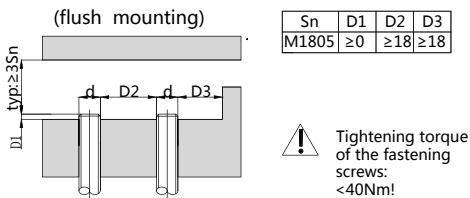
Dimensioned drawing



Model No.

| | |
|---------------|--------------------------|
| Sensing range | Sn: 5 mm |
| N. O | BFB-M1805C-V13S12 |
| N. C | BFB-M1805C-V23S12 |

Mounting

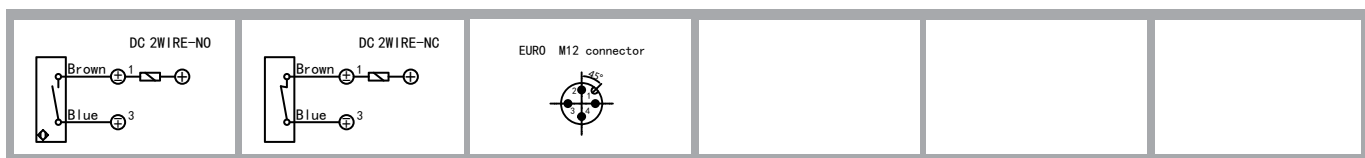


| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|-------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤4.5V |
| | Leakage current | ≤0.8mA |
| | Load current | 200mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Polarity reversal protection | Yes |
| | Ambient temperature | -25...70°C |
| Mechanical data | Ingress protection | IP67 |
| | Housing material | Stainless steel |
| Electrical connection | Face material | Stainless steel |
| | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | (to be ordered separately) | |

Wiring



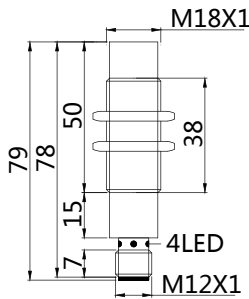


Features:

- M18*1mm , Full stainless steel housing;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



Dimensioned drawing

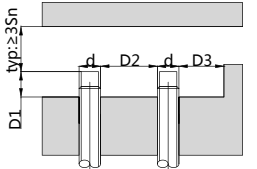


Model No.

| | |
|---------------|--------------------------|
| Sensing range | Sn:8 mm |
| N. O | BFN-M1808C-V13S12 |
| N. C | BFN-M1808C-V23S12 |

Mounting

(non-flush mounting)



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|----------------------------|
| Electrical data | Operating voltage | 10-60V DC |
| | Switching frequency | 100Hz |
| | Voltage drop | ≤4.5V |
| | Leakge current | ≤0.8mA |
| | Load current | 200mA |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | Stainless steel |
| Electrical connection | Connectors | M12 connector |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



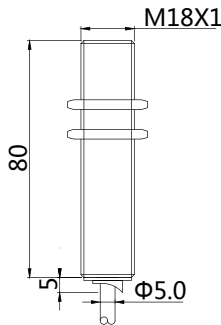


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 1.0-4.0mm , flush mountable;
- DC 3-wire/DC 4-wire , analog output;
- Cable



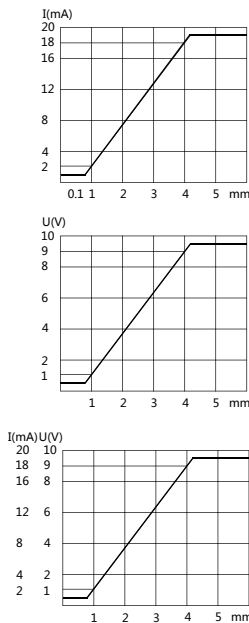
Dimensioned drawing



Model No.

| | |
|---------------|------------------------|
| Sensing range | Sn: 1.0-4.0 mm |
| 0-20mA | BAB-M1804-CI2P2 |
| 0-10V | BAB-M1804-CV2P2 |
| 0-20mA/0-10V | BAB-M1804-CM2P2 |

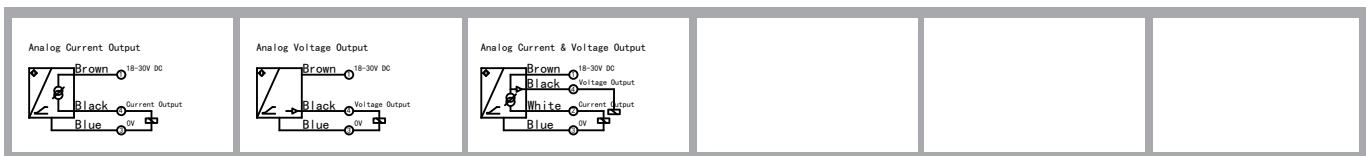
Deviation curve



Technical data

| | | |
|------------------------------|------------------------------|--|
| Electrical data | Operating voltage | 18-30V DC |
| | Switching frequency | 100Hz |
| | Output function | 0-20mA;<400Ω/0-10VDC;>2000Ω 0-10VDC;>2000Ω+0-20mA;<400Ω |
| | Load current | <35mA |
| | Temperature drift | <10%(Sr) |
| | Repeatability | <2%(Sr) |
| | Linearity | <5%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m;3*0.35mm ² /4*0.25mm ² |
| Accessories | Accessories | NO (to be ordered separately) |

Wiring



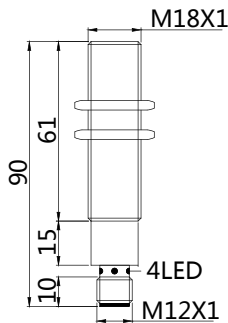


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 1.0-4.0mm , flush mountable;
- DC 3-wire/DC 4-wire , analog output;
- Connector versions



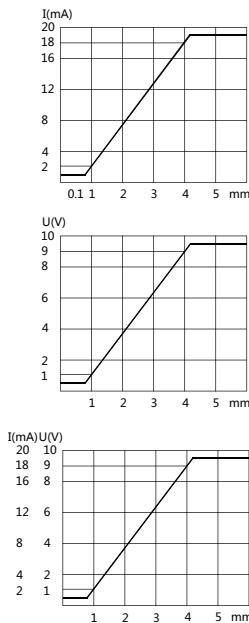
Dimensioned drawing



Model No.

| Sensing range | Sn: 1.0-4.0 mm |
|---------------|-------------------------|
| 0-20mA | BAB-M1804-CI2S12 |
| 0-10V | BAB-M1804-CV2S12 |
| 0-20mA/0-10V | BAB-M1804-CM2S12 |

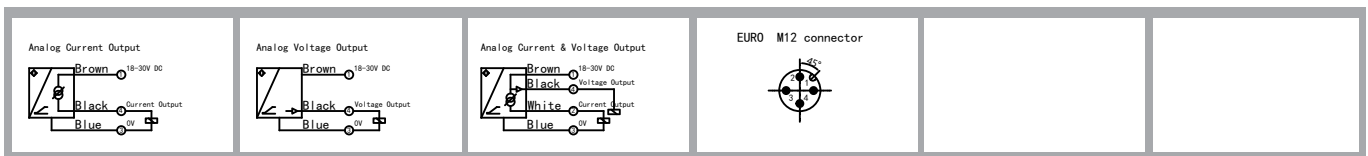
Deviation curve



Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 18-30V DC |
| | Switching frequency | 100Hz |
| | Output function | 0-20mA;<400Ω/0-10VDC;>2000Ω |
| | | 0-10VDC,>2000Ω+0-20mA;<400Ω |
| | Load current | <35mA |
| | Temperature drift | <10%(Sr) |
| | Repeatability | <2%(Sr) |
| | Linearity | <5%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connectotr |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



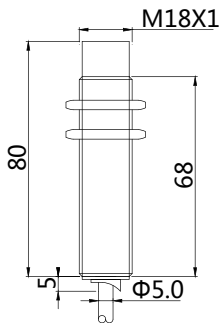


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 1.0-7.0mm , non-flush mountable;
- DC 3-wire/DC 4-wire , analog output;
- Cable



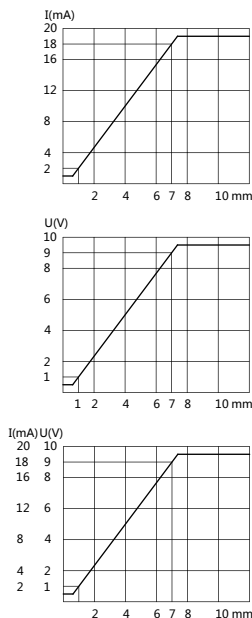
Dimensioned drawing



Model No.

| | |
|---------------|------------------------|
| Sensing range | Sn: 1.0-7.0 mm |
| 0-20mA | BAN-M1807-CI2P2 |
| 0-10V | BAN-M1807-CV2P2 |
| 0-20mA/0-10V | BAN-M1807-CM2P2 |

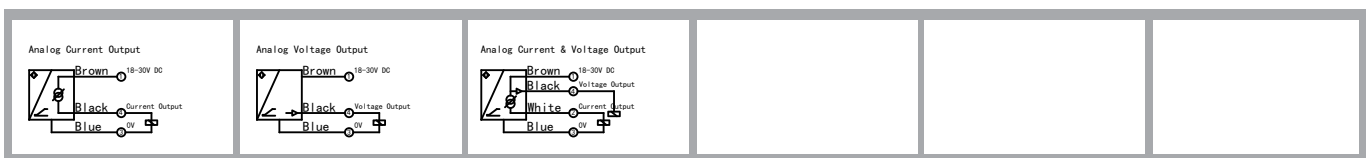
Deviation curve



Technical data

| | | |
|------------------------------|--------------------------|---|
| Electrical data | Operating voltage | 18-30V DC |
| | Switching frequency | 100Hz |
| | Output function | 0-20mA;<400Ω/0-10VDC;>2000Ω |
| | | 0-10VDC;>2000Ω+0-20mA;<400Ω |
| | Load current | <35mA |
| | Temperature drift | <10%(Sr) |
| | Repeatability | <2%(Sr) |
| | Linearity | <5%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PVC cable/2m;3*0.35mm ² /4*0.25mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



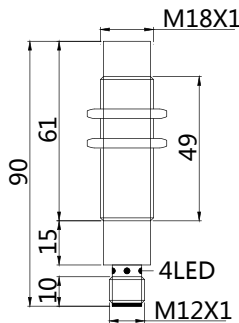


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 1.0-7.0mm , non-flush mountable;
- DC 3-wire/DC 4-wire , analog output;
- Connector versions



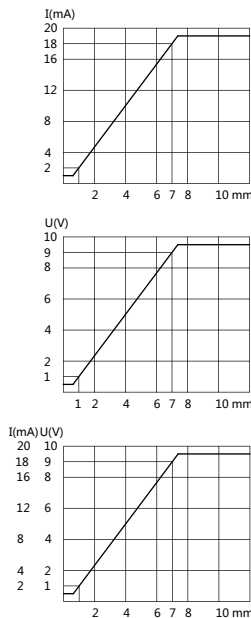
Dimensioned drawing



Model No.

| Sensing range | Sn: 1.0-7.0 mm |
|---------------|-------------------------|
| 0-20mA | BAN-M1807-CI2S12 |
| 0-10V | BAN-M1807-CV2S12 |
| 0-20mA/0-10V | BAN-M1807-CM2S12 |

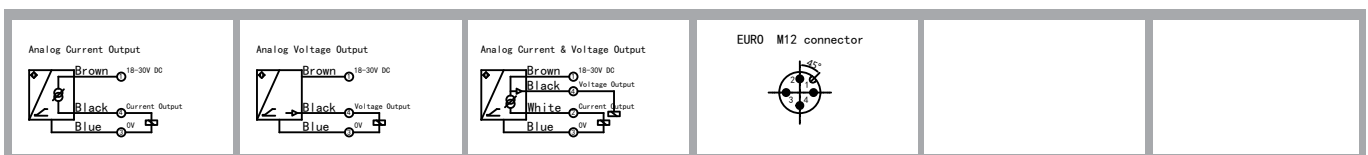
Deviation curve



Technical data

| | | |
|------------------------------|------------------------------|-----------------------------|
| Electrical data | Operating voltage | 18-30V DC |
| | Switching frequency | 100Hz |
| | Output function | 0-20mA;<400Ω/0-10VDC;>2000Ω |
| | | 0-10VDC,>2000Ω+0-20mA;<400Ω |
| | Load current | <35mA |
| | Temperature drift | <10%(Sr) |
| | Repeatability | <2%(Sr) |
| | Linearity | <5%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...70°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | M12 connectotr |
| Accessories | Accessories | B12-4GV2/B12-4WV2 |
| | | (to be ordered separately) |

Wiring



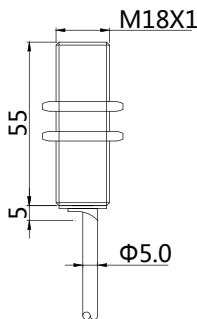


Features:

- M18*1 mm , Brass,nickel-plated housing;
- 8mm , flush mountable;
- DC 3-wire , switching output;
- Withstand low-temperatures(-40...85°C);
- Cable



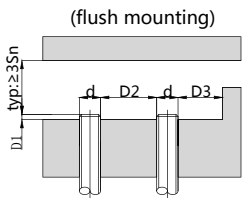
Dimensioned drawing



Model No.

| Sensing range | Sn: 8 mm |
|---------------|------------------|
| NPN N. O | BLB-M1808N-C11U2 |
| NPN N. C | BLB-M1808N-C21U2 |
| PNP N. O | BLB-M1808P-C11U2 |
| PNP N. C | BLB-M1808P-C21U2 |

Mounting



| Sn | D1 | D2 | D3 |
|-------|------|-----|-----|
| M1808 | ≥2.5 | ≥18 | ≥18 |

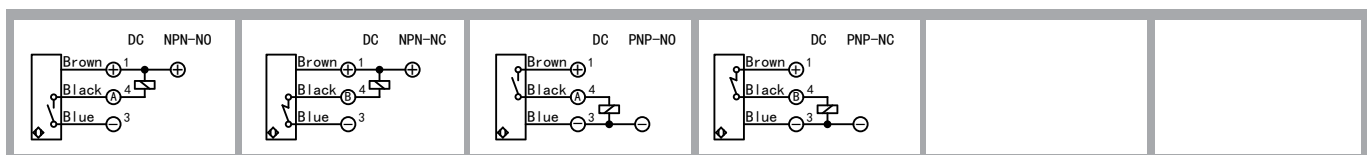
⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|------------------------------|--------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 3000Hz |
| | Voltage drop | ≤1.5V |
| | Leakge current | <0.01mA |
| | Load current | 200mA |
| | No load current | ≤10mA(24V) |
| | Hysteresis | <15%(Sr) |
| | Repeatability | <1.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -40...85°C |
| | Ingress protection | IP67 |
| Mechanical data | Housing material | Brass,nickel-plated |
| | Face material | PBT |
| Electrical connection | Connectors | PUR cable/2m ; 3*0.35mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



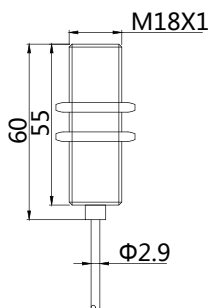


Features:

- M18*1 mm , Metal housing;
- 5mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...120°C);
- Cable



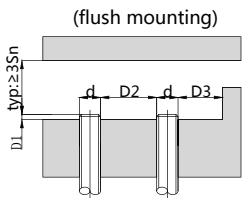
Dimensioned drawing



Model No.

| | |
|---------------|-----------------------------|
| Sensing range | Sn: 5 mm |
| NPN | BHB-M1805N-V11F2-120 |
| PNP | BHB-M1805P-V11F2-120 |

Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|---------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 800Hz/120°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | Load current | 100mA/24V DC |
| | No load current | ≤10mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...120°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | PTFE cable/2m ; 3*0.18mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



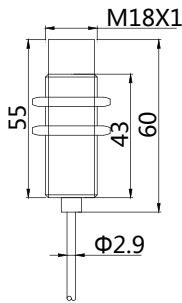


Features:

- M18*1 mm , Metal housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...120°C);
- Cable



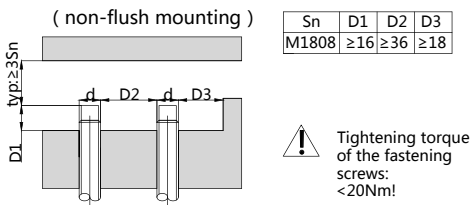
Dimensioned drawing



Model No.

| | |
|---------------|-----------------------------|
| Sensing range | Sn: 8 mm |
| NPN | BHN-M1808N-V11F2-120 |
| PNP | BHN-M1808P-V11F2-120 |

Mounting



| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|---------------------------------------|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 800Hz/120°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | Load current | 100mA/24V DC |
| | No load current | ≤10mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...120°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | PTFE cable/2m ; 3*0.18mm ² |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



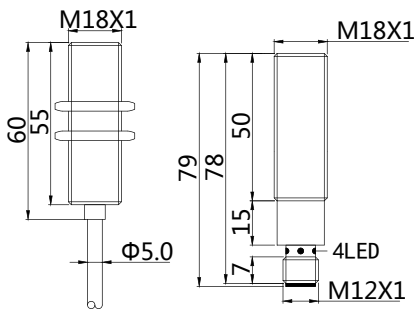


Features:

- M18*1 mm , Metal housing;
- 5mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...150°C);
- Cable & Connector versions



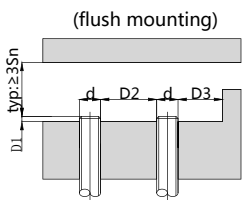
Dimensioned drawing



Model No.

| | |
|---------------|------------------------------------|
| Sensing range | Sn: 5 mm |
| NPN | BHB-M1805N-V11F3-Z12-150EXT |
| PNP | BHB-M1805P-V11F3-Z12-150EXT |

Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|---------------------------------------|
| | Switching frequency | 800Hz/150°C |
| | Voltage drop | ≤1.8V |
| | Leakge current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...150°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | PTFE cable/3m ; 3*0.35mm ² |
| | | S12 connector |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



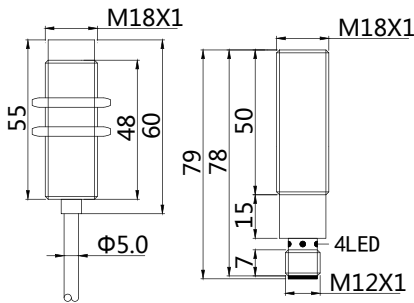


Features:

- M18*1 mm , Metal housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...150°C);
- Cable & Connector versions

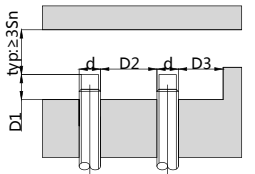


Dimensioned drawing



Mounting

(non-flush mounting)



| Sn | D1 | D2 | D3 |
|-------|-----|-----|-----|
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Model No.

| Sensing range | Sn: 8 mm |
|---------------|------------------------------------|
| NPN | BHN-M1808N-V11F3-Z12-150EXT |
| PNP | BHN-M1808P-V11F3-Z12-150EXT |

Technical data

| | | |
|------------------------------|--------------------------|--|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 800Hz/150°C |
| | Voltage drop | ≤1.8V |
| | Leakge current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...150°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | PTFE cable/3m ; 3*0.35mm ² S12 connector |
| | Accessories | Accessories NO (to be ordered separately) |

Wiring



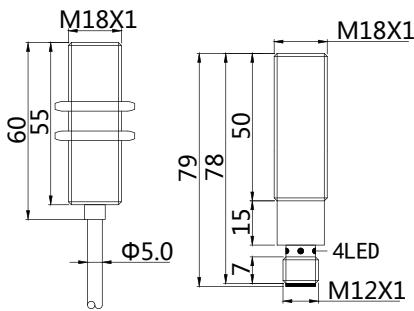


Features:

- M18*1 mm , Metal housing;
- 5mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...180°C);
- Cable & Connector versions



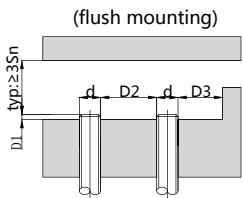
Dimensioned drawing



Model No.

| | |
|---------------|------------------------------------|
| Sensing range | Sn: 5 mm |
| NPN | BHB-M1805N-V11A3-Z12-180EXT |
| PNP | BHB-M1805P-V11A3-Z12-180EXT |

Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--|
| | Switching frequency | 800Hz/180°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...180°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | KFF46PH cable/3m ; 3*0.26mm ² |
| | | S12 connector |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



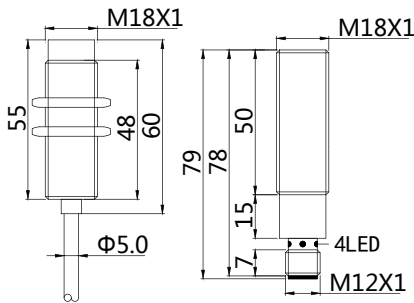


Features:

- M18*1 mm , Metal housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...180°C);
- Cable & Connector versions



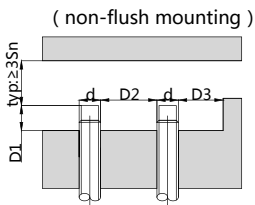
Dimensioned drawing



Model No.

| | |
|---------------|------------------------------------|
| Sensing range | Sn: 8 mm |
| NPN | BHN-M1808N-V11A3-Z12-180EXT |
| PNP | BHN-M1808P-V11A3-Z12-180EXT |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|--|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 800Hz/180°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...180°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | KFF46PH cable/3m ; 3*0.26mm ² |
| | | S12 connector |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



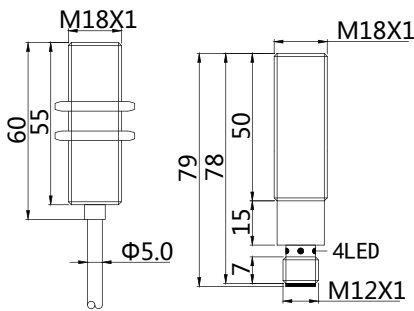


Features:

- M18*1 mm , Metal housing;
- 5mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...230°C);
- Cable & Connector versions



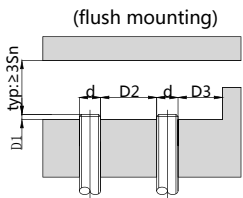
Dimensioned drawing



Model No.

| | |
|---------------|------------------------------------|
| Sensing range | Sn: 5 mm |
| NPN | BHB-M1805N-V11A3-Z12-230EXT |
| PNP | BHB-M1805P-V11A3-Z12-230EXT |

Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1805 | ≥0 | ≥18 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--|
| | Switching frequency | 500Hz/230°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...230°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | KFF46PH cable/3m ; 3*0.26mm ² |
| | | S12 connector |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring



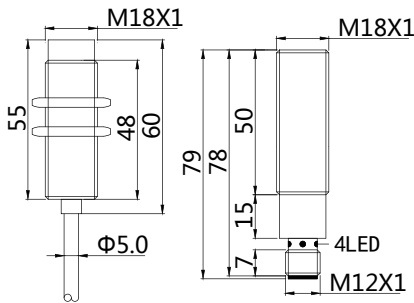


Features:

- M18*1 mm , Metal housing;
- 8mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...230°C);
- Cable & Connector versions



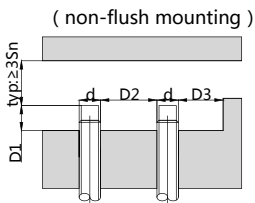
Dimensioned drawing



Model No.

| | |
|---------------|------------------------------------|
| Sensing range | Sn: 8 mm |
| NPN | BHN-M1808N-V11A3-Z12-230EXT |
| PNP | BHN-M1808P-V11A3-Z12-230EXT |

Mounting



| | | | |
|-------|-----|-----|-----|
| Sn | D1 | D2 | D3 |
| M1808 | ≥16 | ≥36 | ≥18 |

⚠ Tightening torque of the fastening screws: <20Nm!

| Correction Factor | |
|-------------------|-----------|
| Non-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| | | |
|------------------------------|--------------------------|---|
| Electrical data | Operating voltage | 10-30V DC |
| | Switching frequency | 500Hz/230°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| Overload protection | Yes | |
| Polarity reversal protection | Yes | |
| Environment | Ambient temperature | -25...230°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | KFF46PH cable/3m ; 3*0.26mm ² S12 connector |
| | Accessories | Accessories NO (to be ordered separately) |

Wiring



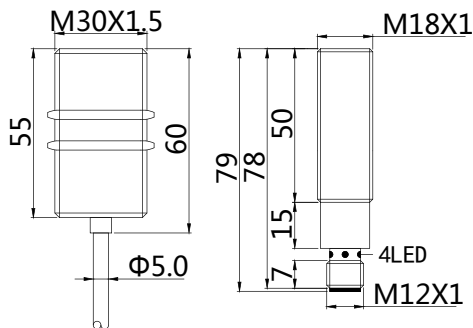


Features:

- M30*1.5 mm , Metal housing;
- 10mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...230°C);
- Cable & Connector versions



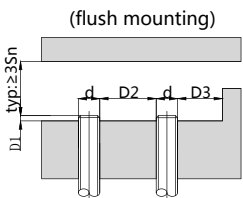
Dimensioned drawing



Model No.

| | |
|---------------|-----------------------------|
| Sensing range | Sn: 10 mm |
| NPN | BHB-M3010N-V11A3-Z12-230EXT |
| PNP | BHB-M3010P-V11A3-Z12-230EXT |

Mounting



| | | | |
|-------|----|-----|-----|
| Sn | D1 | D2 | D3 |
| M3010 | ≥0 | ≥30 | ≥30 |

⚠ Tightening torque of the fastening screws: <40Nm!

| Correction Factor | |
|-------------------|-----------|
| Nav-ferrous metal | Factor |
| Fe360 | 1 |
| Aluminum | 0.35~0.45 |
| Brass | 0.35~0.5 |
| Copper | 0.25~0.45 |
| Stainless steel | 0.6~1.0 |
| Cast Iron | 0.93~1.05 |
| Nickel | 0.65~0.75 |

Technical data

| Electrical data | Operating voltage | 10-30V DC |
|-----------------------|------------------------------|--|
| | Switching frequency | 200Hz/230°C |
| | Voltage drop | ≤1.8V |
| | Leakage current | <0.01mA |
| | amplifier | External |
| | No load current | ≤25mA |
| | Hysteresis | 3-15%(Sr) |
| | Repeatability | <3.0%(Sr) |
| | Temperature drift | <10%(Sr) |
| | Short circuit protection | Yes |
| | Overload protection | Yes |
| | Polarity reversal protection | Yes |
| Environment | Ambient temperature | -25...230°C |
| | Ingress protection | IP66 |
| Mechanical data | Housing material | Stainless steel |
| | Face material | PTFE |
| Electrical connection | Connectors | KFF46PH cable/3m ; 3*0.26mm ² |
| | | S12 connector |
| Accessories | Accessories | NO |
| | | (to be ordered separately) |

Wiring

