

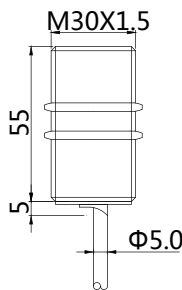


#### Features:

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16/22mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable



#### Dimensioned drawing



#### Model No.

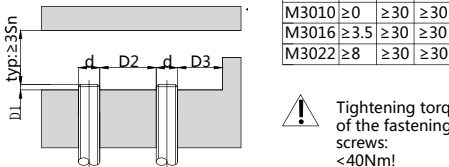
Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O	BB-M3010N-C11P2	BB-M3016N-C11P2
NPN N. C	BB-M3010N-C21P2	BB-M3016N-C21P2
PNP N. O	BB-M3010P-C11P2	BB-M3016P-C11P2
PNP N. C	BB-M3010P-C21P2	BB-M3016P-C21P2

Sensing range	Sn: 22 mm
NPN N. O	BB-M3022N-C11P2
NPN N. C	BB-M3022N-C21P2
PNP N. O	BB-M3022P-C11P2
PNP N. C	BB-M3022P-C21P2

#### Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30
M3022	≥8	≥30	≥30

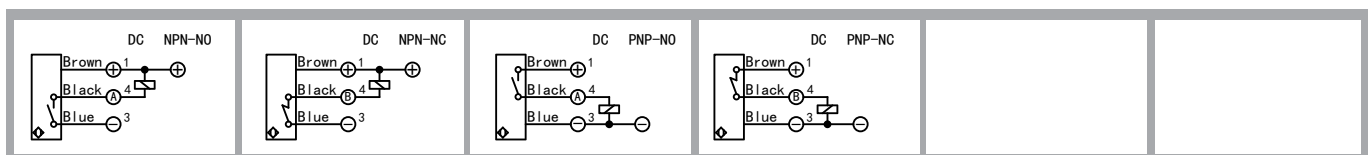
⚠ Tightening torque of the fastening screws: <40Nm!

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	300Hz/300Hz/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	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	PVC cable/2m ; 3*0.35mm <sup>2</sup>
Accessories	Accessories	NO
		(to be ordered separately)

#### Wiring



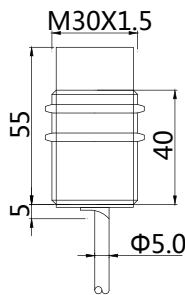


#### Features:

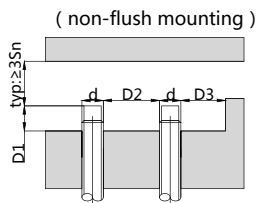
- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25/40mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30
M3040	≥40	≥90	≥30

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

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

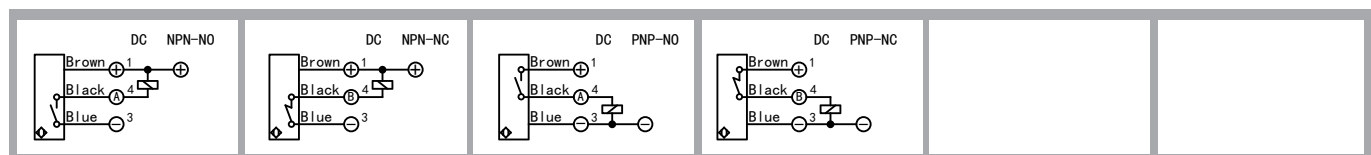
#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O	BN-M3015N-C11P2	BN-M3025N-C11P2
NPN N. C	BN-M3015N-C21P2	BN-M3025N-C21P2
PNP N. O	BN-M3015P-C11P2	BN-M3025P-C11P2
PNP N. C	BN-M3015P-C21P2	BN-M3025P-C21P2
Sensing range	Sn: 40 mm	
NPN N. O	BN-M3040N-C11P2	
NPN N. C	BN-M3040N-C21P2	
PNP N. O	BN-M3040P-C11P2	
PNP N. C	BN-M3040P-C21P2	

#### Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	PVC cable/2m ; 3*0.35mm <sup>2</sup>
Accessories	Accessories	NO (to be ordered separately)

#### Wiring



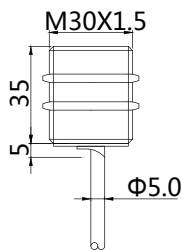


#### Features:

- M30\*1.5 mm short body , Brass,nickel-plated housing;
- 10/16/22mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable

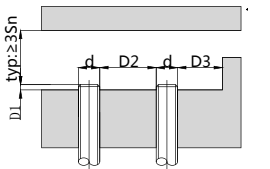


#### Dimensioned drawing



#### Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30
M3022	≥8	≥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

#### Model No.

Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O	BB-M3010N-C11P2-S	BB-M3016N-C11P2-S
NPN N. C	BB-M3010N-C21P2-S	BB-M3016N-C21P2-S
PNP N. O	BB-M3010P-C11P2-S	BB-M3016P-C11P2-S
PNP N. C	BB-M3010P-C21P2-S	BB-M3016P-C21P2-S

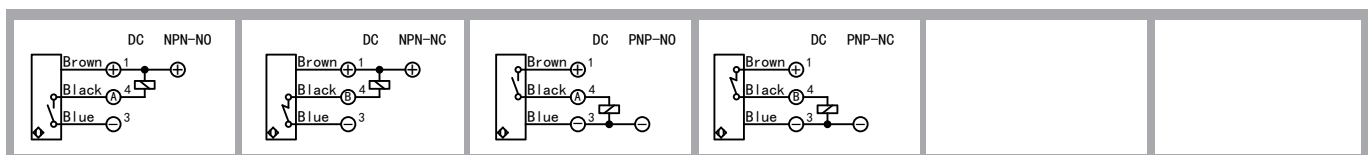
  

Sensing range	Sn: 22 mm
NPN N. O	BB-M3022N-C11P2-S
NPN N. C	BB-M3022N-C21P2-S
PNP N. O	BB-M3022P-C11P2-S
PNP N. C	BB-M3022P-C21P2-S

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

#### Wiring



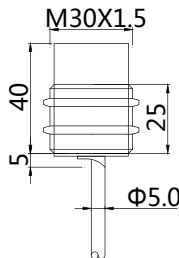


#### Features:

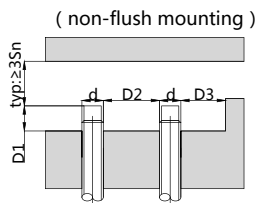
- M30\*1.5 mm short body , Brass,nickel-plated housing;
- 15/25/40mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30
M3040	≥40	≥90	≥30

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

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: 15 mm	Sn: 25 mm
NPN N. O	BN-M3015N-C11P2-S	BN-M3025N-C11P2-S
NPN N. C	BN-M3015N-C21P2-S	BN-M3025N-C21P2-S
PNP N. O	BN-M3015P-C11P2-S	BN-M3025P-C11P2-S
PNP N. C	BN-M3015P-C21P2-S	BN-M3025P-C21P2-S

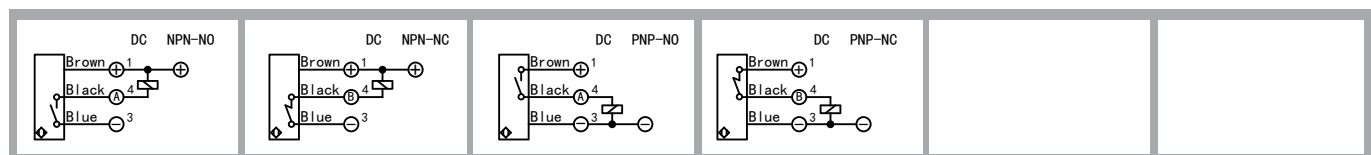
  

Sensing range	Sn: 40 mm
NPN N. O	BN-M3040N-C11P2-S
NPN N. C	BN-M3040N-C21P2-S
PNP N. O	BN-M3040P-C11P2-S
PNP N. C	BN-M3040P-C21P2-S

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO (to be ordered separately)

#### Wiring



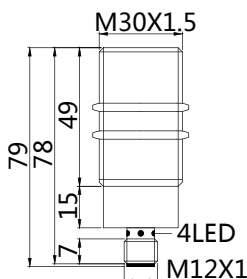


#### Features:

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16/22mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions

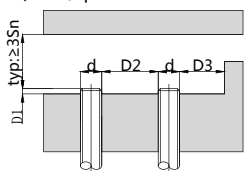


#### Dimensioned drawing



#### Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30
M3022	≥8	≥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

#### Model No.

Sensing range	Sn:10 mm	Sn:16 mm
NPN N. O	BB-M3010N-C11S12	BB-M3016N-C11S12
NPN N. C	BB-M3010N-C21S12	BB-M3016N-C21S12
PNP N. O	BB-M3010P-C11S12	BB-M3016P-C11S12
PNP N. C	BB-M3010P-C21S12	BB-M3016P-C21S12

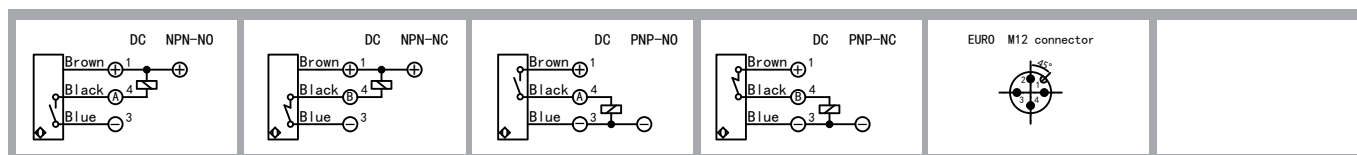
  

Sensing range	Sn:22 mm
NPN N. O	BB-M3022N-C11S12
NPN N. C	BB-M3022N-C21S12
PNP N. O	BB-M3022P-C11S12
PNP N. C	BB-M3022P-C21S12

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

#### Wiring



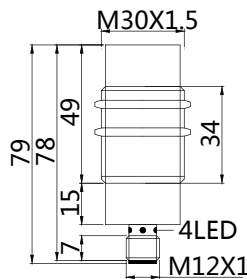


#### Features:

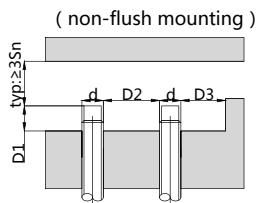
- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25/40mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30
M3040	≥40	≥90	≥30

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

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

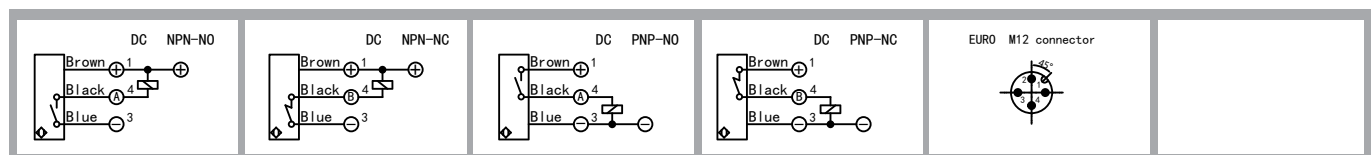
#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O	BN-M3015N-C11S12	BN-M3025N-C11S12
NPN N. C	BN-M3015N-C21S12	BN-M3025N-C21S12
PNP N. O	BN-M3015P-C11S12	BN-M3025P-C11S12
PNP N. C	BN-M3015P-C21S12	BN-M3025P-C21S12
Sensing range	Sn: 40 mm	
NPN N. O	BN-M3040N-C11S12	
NPN N. C	BN-M3040N-C21S12	
PNP N. O	BN-M3040P-C11S12	
PNP N. C	BN-M3040P-C21S12	

#### Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4W V2 (to be ordered separately)

#### Wiring

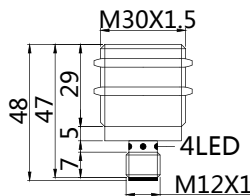


#### Features:

- M30\*1.5 mm short body , Brass,nickel-plated housing;
- 10/16/22mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions

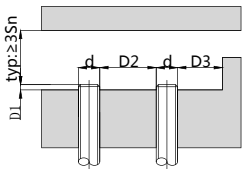


#### Dimensioned drawing



#### Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30
M3022	≥8	≥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

#### Model No.

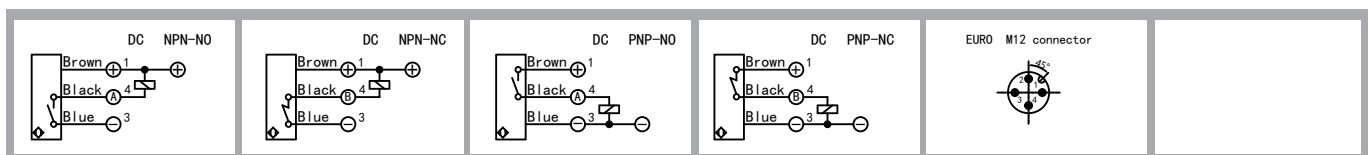
Sensing range	Sn:10 mm	Sn:16 mm
NPN N.O	BB-M3010N-C11S12-S	BB-M3016N-C11S12-S
NPN N.C	BB-M3010N-C21S12-S	BB-M3016N-C21S12-S
PNP N.O	BB-M3010P-C11S12-S	BB-M3016P-C11S12-S
PNP N.C	BB-M3010P-C21S12-S	BB-M3016P-C21S12-S

Sensing range	Sn:22 mm
NPN N.O	BB-M3022N-C11S12-S
NPN N.C	BB-M3022N-C21S12-S
PNP N.O	BB-M3022P-C11S12-S
PNP N.C	BB-M3022P-C21S12-S

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

#### Wiring

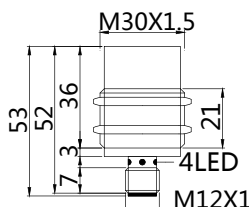


#### Features:

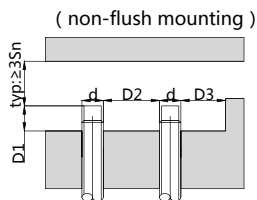
- M30\*1.5 mm short body , Brass,nickel-plated housing;
- 15/25/40mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30
M3040	≥40	≥90	≥30

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

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

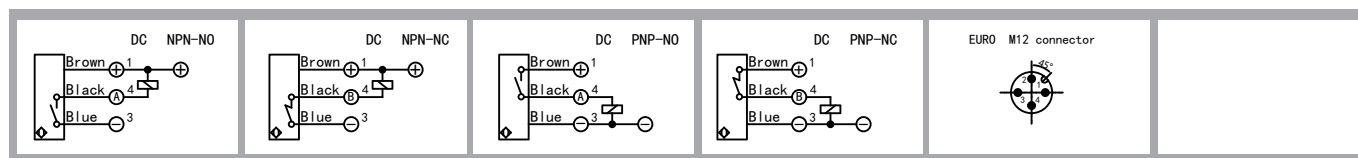
#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O	BN-M3015N-C11S12-S	BN-M3025N-C11S12-S
NPN N. C	BN-M3015N-C21S12-S	BN-M3025N-C21S12-S
PNP N. O	BN-M3015P-C11S12-S	BN-M3025P-C11S12-S
PNP N. C	BN-M3015P-C21S12-S	BN-M3025P-C21S12-S
Sensing range	Sn: 40 mm	
NPN N. O	BN-M3040N-C11S12-S	
NPN N. C	BN-M3040N-C21S12-S	
PNP N. O	BN-M3040P-C11S12-S	
PNP N. C	BN-M3040P-C21S12-S	

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	300Hz/300Hz/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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4W V2 (to be ordered separately)

#### Wiring





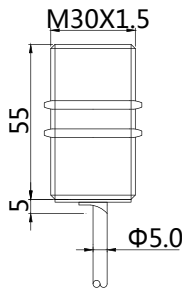


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- DC 2-wire , switching output;
- Cable



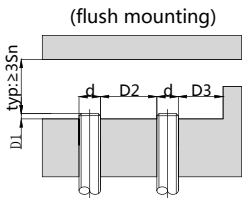
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
N. O	BB-M3010C-C13P2	BB-M3016C-C13P2
N. C	BB-M3010C-C23P2	BB-M3016C-C23P2

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
	(to be ordered separately)	

**Wiring**



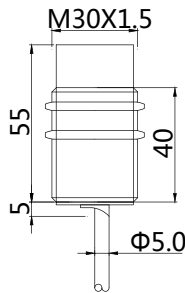


**Features:**

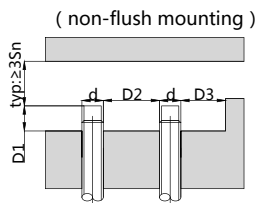
- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



**Dimensioned drawing**



**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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

**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
N.O	<b>BN-M3015C-C13P2</b>	<b>BN-M3025C-C13P2</b>
N.C	<b>BN-M3015C-C23P2</b>	<b>BN-M3025C-C23P2</b>

**Technical data**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
<b>Mechanical data</b>	Ingress protection	IP67
	Housing material	Brass,nickel-plated
<b>Electrical connection</b>	Face material	PBT
	Connectors	PVC cable/2m,2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO

(to be ordered separately)

**Wiring**



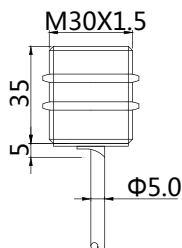


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 10/16mm , flush mountable;
- DC 2-wire , switching output;
- Cable



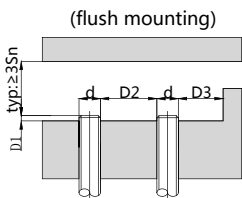
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
N. O	BB-M3010C-C13P2-S	BB-M3016C-C13P2-S
N. C	BB-M3010C-C23P2-S	BB-M3016C-C23P2-S

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



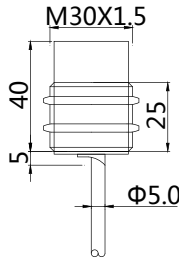


**Features:**

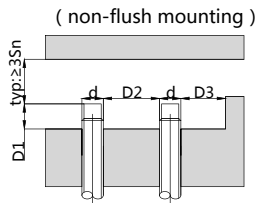
- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 15/25mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



**Dimensioned drawing**



**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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

**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
N.O	<b>BN-M3015C-C13P2-S</b>	<b>BN-M3025C-C13P2-S</b>
N.C	<b>BN-M3015C-C23P2-S</b>	<b>BN-M3025C-C23P2-S</b>

**Technical data**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m,2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO

(to be ordered separately)

**Wiring**



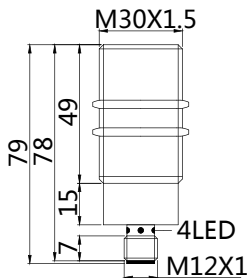


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



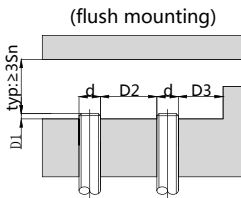
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
N. O	<b>BB-M3010C-C13S12</b>	<b>BB-M3016C-C13S12</b>
N. C	<b>BB-M3010C-C23S12</b>	<b>BB-M3016C-C23S12</b>

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30

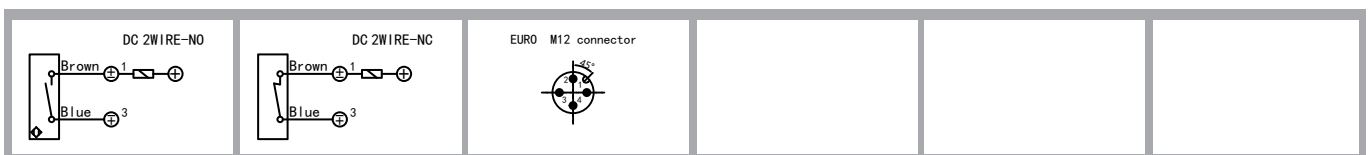
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
	Polarity reversal protection	Yes
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

**Wiring**



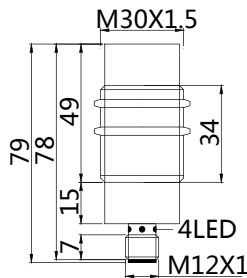


#### Features:

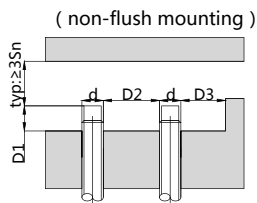
- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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

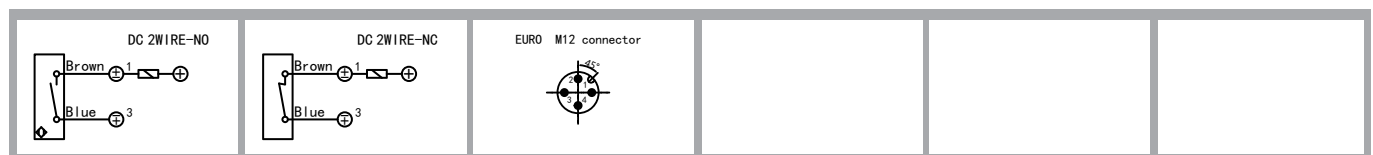
#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
N. O	<b>BN-M3015C-C13S12</b>	<b>BN-M3025C-C13S12</b>
N. C	<b>BN-M3015C-C23S12</b>	<b>BN-M3025C-C23S12</b>

#### Technical data

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
	(to be ordered separately)	

#### Wiring

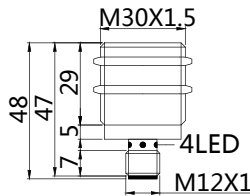


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 10/16mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



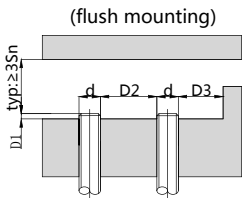
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
N. O	BB-M3010C-C13S12-S	BB-M3016C-C13S12-S
N. C	BB-M3010C-C23S12-S	BB-M3016C-C23S12-S

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
<b>Mechanical data</b>	Ingress protection	IP67
	Housing material	Brass,nickel-plated
<b>Electrical connection</b>	Face material	PBT
	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
	(to be ordered separately)	

**Wiring**

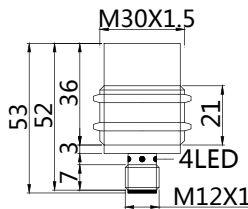


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 15/25mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



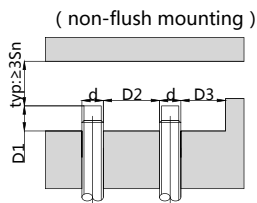
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
N. O	<b>BN-M3015C-C13S12-S</b>	<b>BN-M3025C-C13S12-S</b>
N. C	<b>BN-M3015C-C23S12-S</b>	<b>BN-M3025C-C23S12-S</b>

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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**

<b>Electrical data</b>	Operating voltage	10-60V DC
	Switching frequency	300Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
	(to be ordered separately)	

**Wiring**





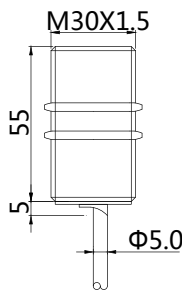


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- DC 4-wire , switching output;
- Cable



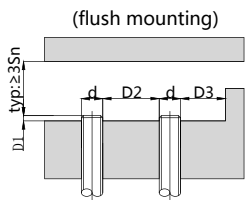
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O.+N. C	<b>BB-M3010N-C31P2</b>	<b>BB-M3016N-C31P2</b>
PNP N. O.+N. C	<b>BB-M3010P-C31P2</b>	<b>BB-M3016P-C31P2</b>

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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**

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/200Hz
	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 4*0.25mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



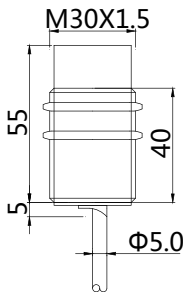


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- DC 4-wire , switching output;
- Cable



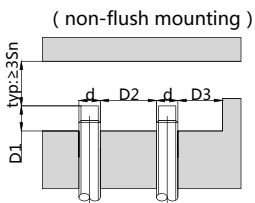
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O.+N. C	<b>BN-M3015N-C31P2</b>	<b>BN-M3025N-C31P2</b>
PNP N. O.+N. C	<b>BN-M3015P-C31P2</b>	<b>BN-M3025P-C31P2</b>

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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**

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 4*0.25mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



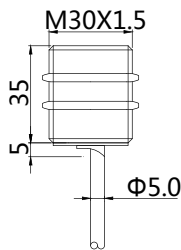


#### Features:

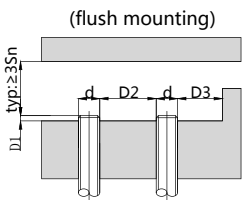
- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 10/16mm , flush mountable;
- DC 4-wire , switching output;
- Cable



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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

#### Model No.

Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O.+N. C	BB-M3010N-C31P2-S	BB-M3016N-C31P2-S
PNP N. O.+N. C	BB-M3010P-C31P2-S	BB-M3016P-C31P2-S

#### Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	2000Hz/200Hz
	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 ; 4*0.25mm <sup>2</sup>
Accessories	Accessories	NO
		(to be ordered separately)

#### Wiring



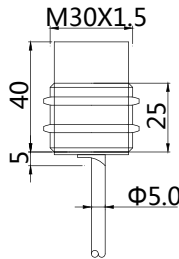


#### Features:

- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 15/25mm , non-flush mountable;
- DC 4-wire , switching output;
- Cable



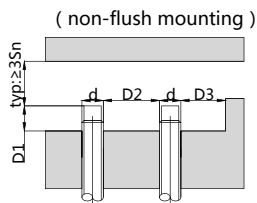
#### Dimensioned drawing



#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O.+N. C	<b>BN-M3015N-C31P2-S</b>	<b>BN-M3025N-C31P2-S</b>
PNP N. O.+N. C	<b>BN-M3015P-C31P2-S</b>	<b>BN-M3025P-C31P2-S</b>

#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥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

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/150Hz
	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 4*0.25mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

#### Wiring



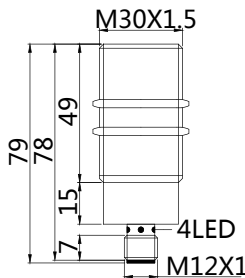


#### Features:

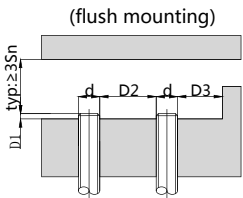
- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- DC 4-wire , switching output;
- Connector versions



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30

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

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

#### Model No.

Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O.+N. C	<b>BB-M3010N-C31S12</b>	<b>BB-M3016N-C31S12</b>
PNP N. O.+N. C	<b>BB-M3010P-C31S12</b>	<b>BB-M3016P-C31S12</b>

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/200Hz
	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring



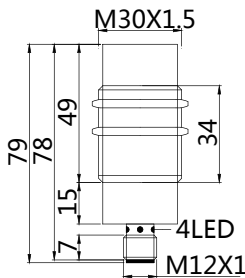


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- DC 4-wire , switching output;
- Connector versions



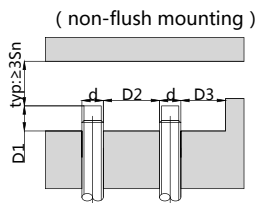
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O.+N. C	<b>BN-M3015N-C31S12</b>	<b>BN-M3025N-C31S12</b>
PNP N. O.+N. C	<b>BN-M3015P-C31S12</b>	<b>BN-M3025P-C31S12</b>

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30

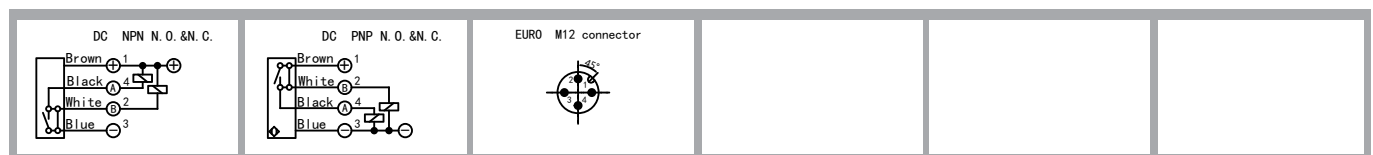
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/150Hz
	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

**Wiring**

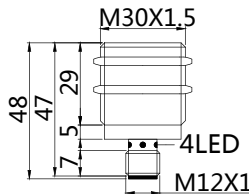


#### Features:

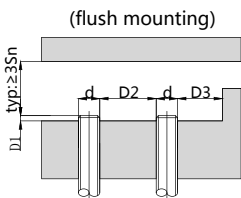
- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 10/16mm , flush mountable;
- DC 4-wire , switching output;
- Connector versions



#### Dimensioned drawing



#### Mounting



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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

#### Model No.

Sensing range	Sn: 10 mm	Sn: 16 mm
NPN N. O.+N. C	<b>BB-M3010N-C31S12-S</b>	<b>BB-M3016N-C31S12-S</b>
PNP N. O.+N. C	<b>BB-M3010P-C31S12-S</b>	<b>BB-M3016P-C31S12-S</b>

#### Technical data

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/200Hz
	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring

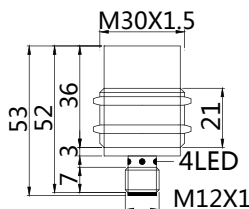


#### Features:

- M30\*1.5 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 15/25mm , non-flush mountable;
- DC 4-wire , switching output;
- Connector versions



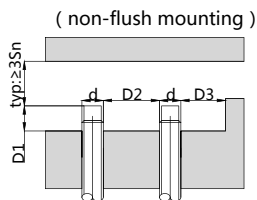
#### Dimensioned drawing



#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
NPN N. O.+N. C	<b>BN-M3015N-C31S12-S</b>	<b>BN-M3025N-C31S12-S</b>
PNP N. O.+N. C	<b>BN-M3015P-C31S12-S</b>	<b>BN-M3025P-C31S12-S</b>

#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30

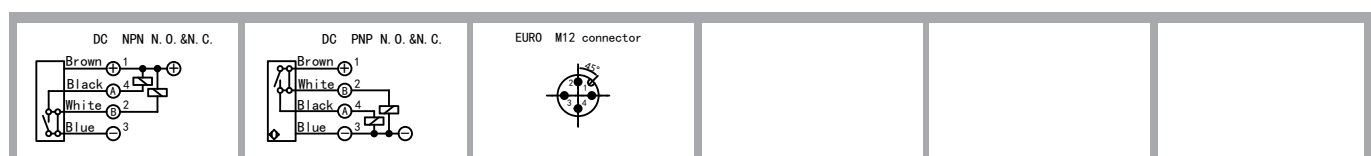
⚠ Tightening torque of the fastening screws: <40Nm!

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

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	2000Hz/150Hz
	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring





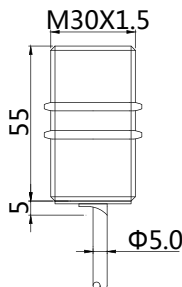


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



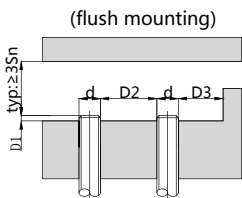
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 10 mm	Sn: 16 mm
N. O	BB-M3010A-C14P2	BB-M3016A-C14P2
N. C	BB-M3010A-C24P2	BB-M3016A-C24P2
N. O	BB-M3010U-C15P2	BB-M3016U-C15P2
N. C	BB-M3010U-C25P2	BB-M3016U-C25P2

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



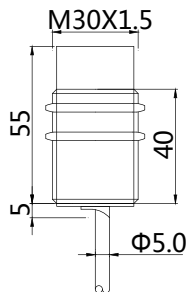


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



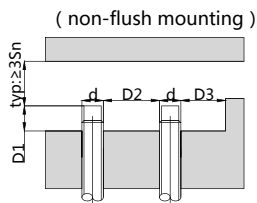
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 15 mm	Sn: 25 mm
N. O	<b>BN-M3015A-C14P2</b>	<b>BN-M3025A-C14P2</b>
N. C	<b>BN-M3015A-C24P2</b>	<b>BN-M3025A-C24P2</b>
N. O	<b>BN-M3015U-C15P2</b>	<b>BN-M3025U-C15P2</b>
N. C	<b>BN-M3015U-C25P2</b>	<b>BN-M3025U-C25P2</b>

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30

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

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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



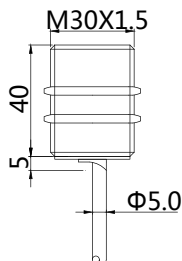


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



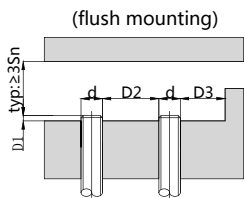
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:10 mm
N. O	BB-M3010A-C14P2-S
N. C	BB-M3010A-C24P2-S
N. O	BB-M3010U-C15P2-S
N. C	BB-M3010U-C25P2-S

**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	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 <sup>2</sup>
Accessories	Accessories	NO
		(to be ordered separately)

**Wiring**



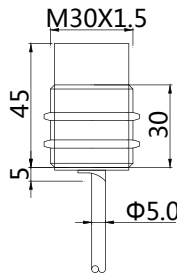


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



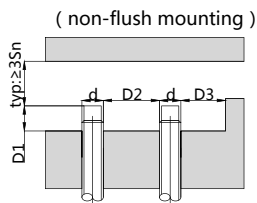
**Dimensioned drawing**



**Model No.**

Sensing range	Sn: 15 mm
N. O	<b>BN-M3015A-C14P2-S</b>
N. C	<b>BN-M3015A-C24P2-S</b>
N. O	<b>BN-M3015U-C15P2-S</b>
N. C	<b>BN-M3015U-C25P2-S</b>

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥30

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

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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



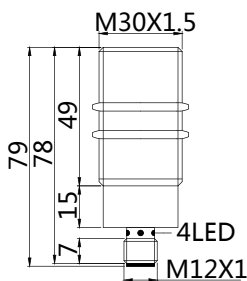


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10/16mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



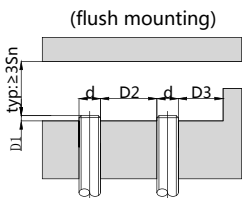
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:10 mm	Sn:16 mm
N. O	BB-M3010A-C14S12	BB-M3016A-C14S12
N. C	BB-M3010A-C24S12	BB-M3016A-C24S12
N. O	BB-M3010U-C15S12	BB-M3016U-C15S12
N. C	BB-M3010U-C25S12	BB-M3016U-C25S12

**Mounting**



Sn	D1	D2	D3
M3010	≥0	≥30	≥30
M3016	≥3.5	≥30	≥30

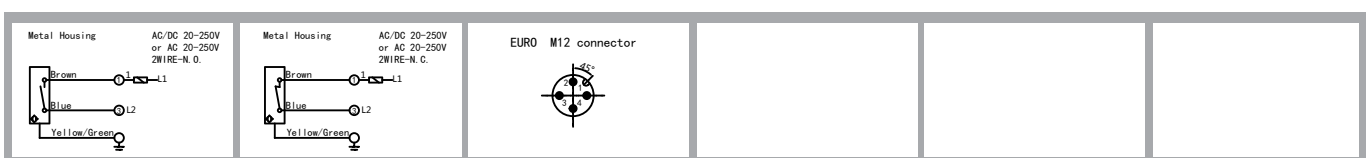
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

**Wiring**



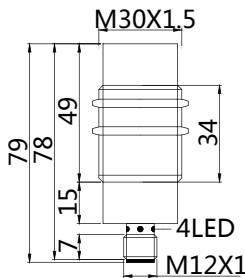


#### Features:

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15/25mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



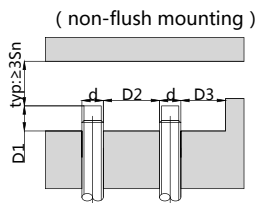
#### Dimensioned drawing



#### Model No.

Sensing range	Sn: 15 mm	Sn: 25 mm
N. O	BN-M3015A-C14S12	BN-M3025A-C14S12
N. C	BN-M3015A-C24S12	BN-M3025A-C24S12
N. O	BN-M3015U-C15S12	BN-M3025U-C15S12
N. C	BN-M3015U-C25S12	BN-M3025U-C25S12

#### Mounting



Sn	D1	D2	D3
M3015	≥22	≥60	≥30
M3025	≥40	≥60	≥30

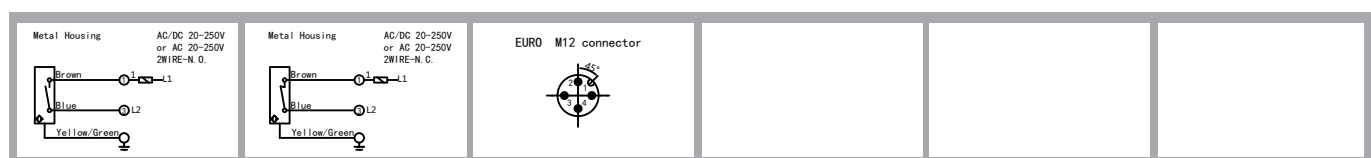
⚠ Tightening torque of the fastening screws: <40Nm!

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

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring



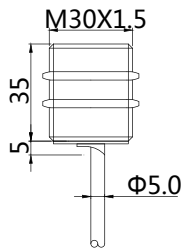


**Features:**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 10mm , flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable

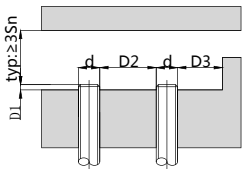


**Dimensioned drawing**



**Mounting**

(flush/quasi-flush 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

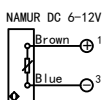
**Model No.**

Sensing range	Sn:10 mm
N. 0	BB-M3010NA-C10P2

**Technical data**

<b>Electrical data</b>	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)
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO (to be ordered separately)

**Wiring**



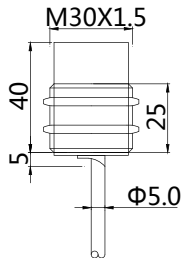


**Features :**

- M30\*1.5 mm , Brass,nickel-plated housing;
- 15mm , non-flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable



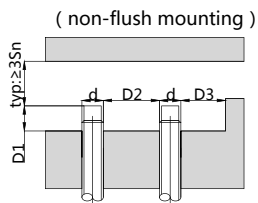
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:15 mm
N. 0	BN-M3015NA-C10P2

**Mounting**



Sn	D1	D2	D3
M3015	≥22	≥60	≥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**

<b>Electrical data</b>	Operating voltage	6-12V DC
	Switching frequency	100Hz
	Leakge current	>2.2mA(OFF), <1.1mA(ON)
	Hysteresis	<15%(Sr)
	Repeatability	<2.0%(Sr)
	Power-up delay	≤10ms
	Temperature drift	<10%(Sr)
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m ; 2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO (to be ordered separately)

**Wiring**



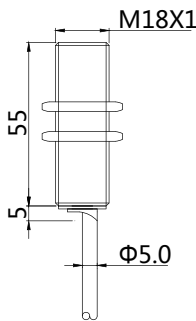


**Features:**

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



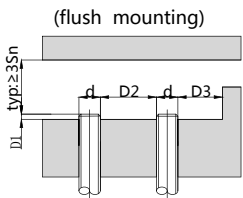
**Dimensioned drawing**



**Model No.**

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

**Mounting**



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

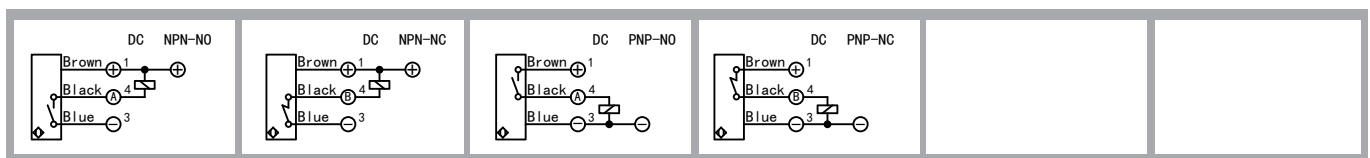
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**

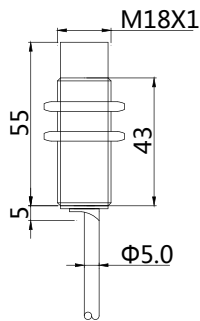


**Features:**

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



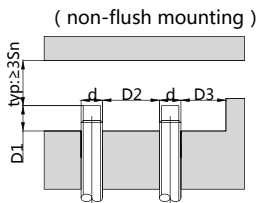
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:8 mm
NPN N. O	<b>BFN-M1808N-V11P2</b>
NPN N. C	<b>BFN-M1808N-V21P2</b>
PNP N. O	<b>BFN-M1808P-V11P2</b>
PNP N. C	<b>BFN-M1808P-V21P2</b>

**Mounting**



Sn	D1	D2	D3
M1808	≥16	≥36	≥18

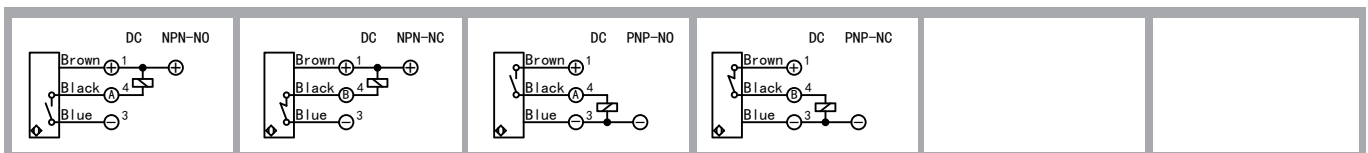
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**

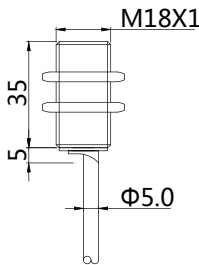


**Features:**

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



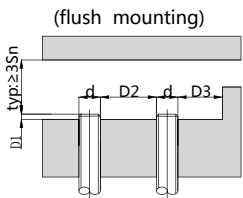
**Dimensioned drawing**



**Model No.**

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

**Mounting**



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

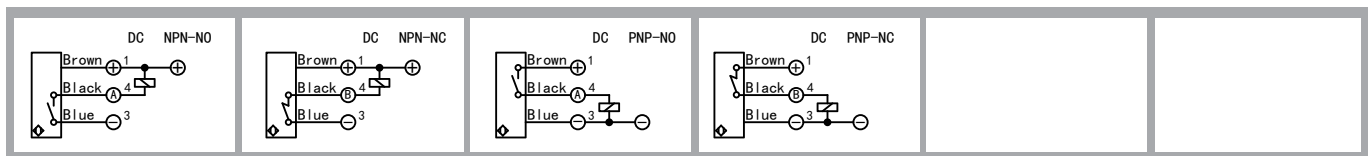
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



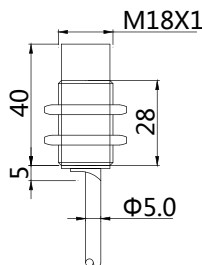


**Features :**

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



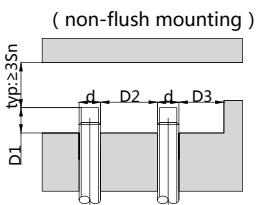
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:8 mm
NPN N. O	<b>BFN-M1808N-V11P2-S</b>
NPN N. C	<b>BFN-M1808N-V21P2-S</b>
PNP N. O	<b>BFN-M1808P-V11P2-S</b>
PNP N. C	<b>BFN-M1808P-V21P2-S</b>

**Mounting**



Sn	D1	D2	D3
M1808	≥16	≥36	≥18

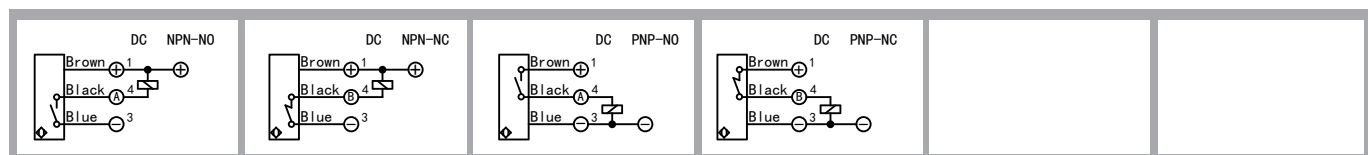
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	PVC cable/2m,3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**

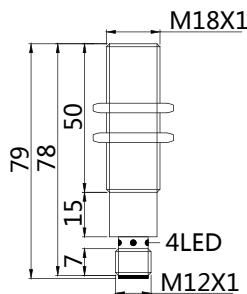


#### Features:

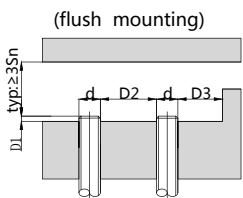
- M18\*1 mm , Full stainless steel housing;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



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

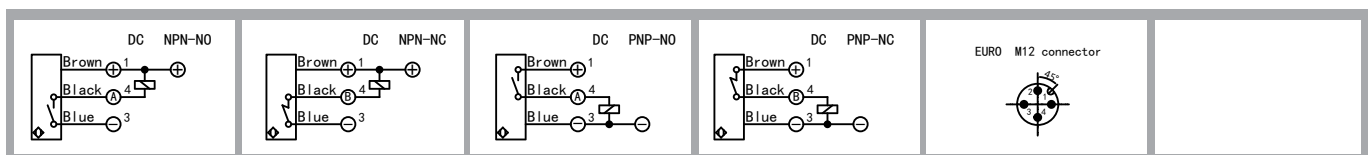
#### Model No.

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

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring

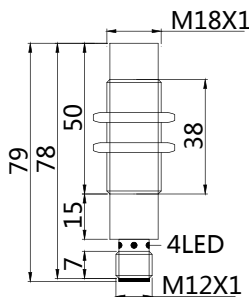


#### Features:

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



#### Dimensioned drawing

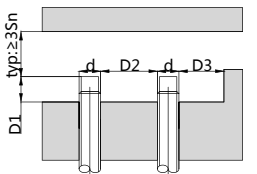


#### Model No.

Sensing range	Sn:8 mm
NPN N. O	<b>BFN-M1808N-V11S12</b>
NPN N. C	<b>BFN-M1808N-V21S12</b>
PNP N. O	<b>BFN-M1808P-V11S12</b>
PNP N. C	<b>BFN-M1808P-V21S12</b>

#### Mounting

( non-flush mounting )



Sn	D1	D2	D3
M1808	≥16	≥36	≥18

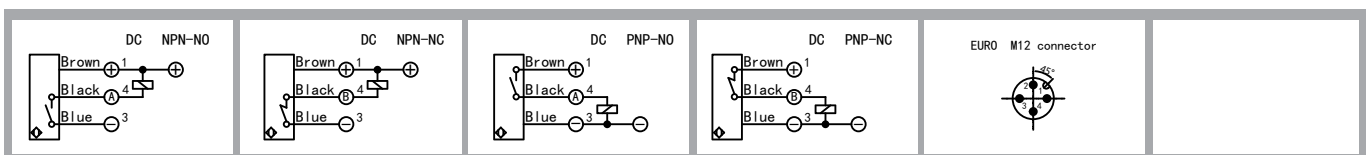
⚠ Tightening torque of the fastening screws: <40Nm!

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

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring

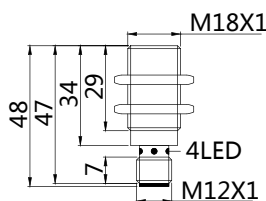


#### Features:

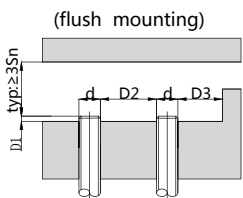
- M18\*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 5/8mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



#### 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

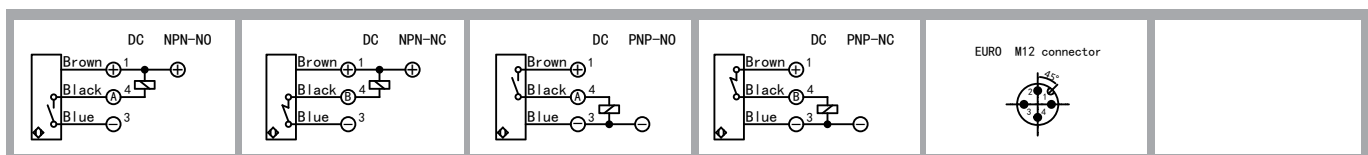
#### Model No.

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

#### Technical data

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

#### Wiring

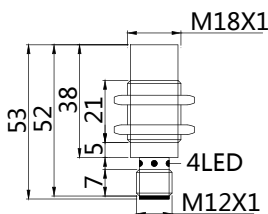


**Features :**

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



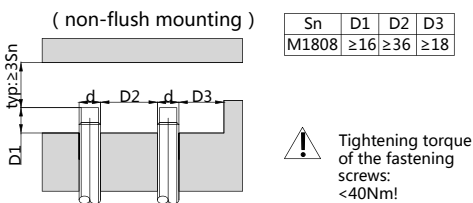
**Dimensioned drawing**



**Model No.**

Sensing range	Sn:8 mm
NPN N. O	<b>BFN-M1808N-V11S12-S</b>
NPN N. C	<b>BFN-M1808N-V21S12-S</b>
PNP N. O	<b>BFN-M1808P-V11S12-S</b>
PNP N. C	<b>BFN-M1808P-V21S12-S</b>

**Mounting**



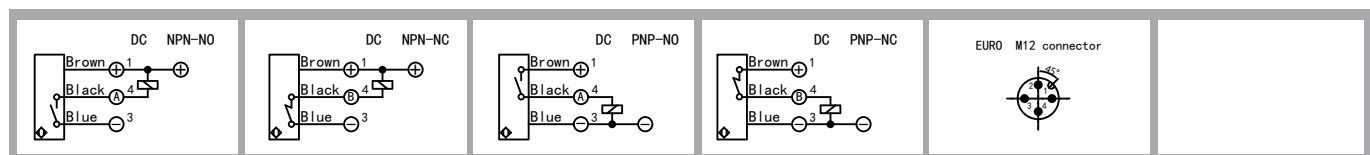
Sn	D1	D2	D3
M1808	≥16	≥36	≥18

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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

**Wiring**





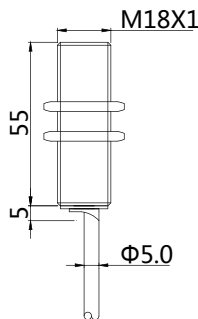


**Features:**

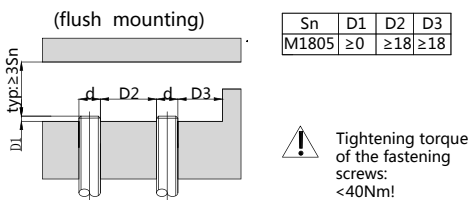
- M18\*1 mm , Full stainless steel housing;
- 5mm , flush mountable;
- DC 2-wire , switching output;
- Cable



**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	<b>Sn : 5 mm</b>
N. O	<b>BFB-M1805C-V13P2</b>
N. C	<b>BFB-M1805C-V23P2</b>

**Technical data**

<b>Electrical data</b>	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
<b>Environment</b>	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
<b>Mechanical data</b>	Ingress protection	IP67
	Housing material	Stainless steel
<b>Electrical connection</b>	Face material	Stainless steel
	Connectors	PVC cable/2m ; 2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
	(to be ordered separately)	

**Wiring**



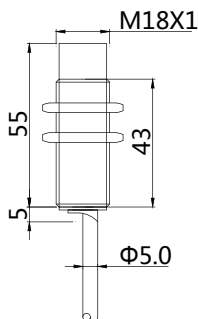


**Features:**

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



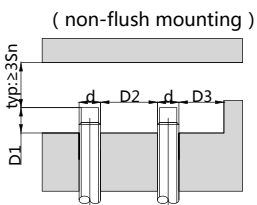
**Dimensioned drawing**



**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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	PVC cable/2m,2*0.5mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



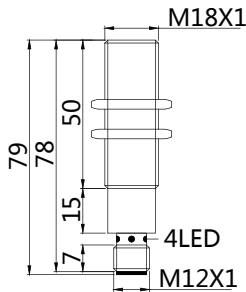


**Features:**

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



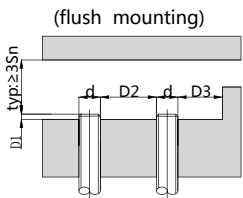
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 5 mm</b>
N. O	<b>BFB-M1805C-V13S12</b>
N. C	<b>BFB-M1805C-V23S12</b>

**Mounting**



Sn	D1	D2	D3
M1805	≥0	≥18	≥18

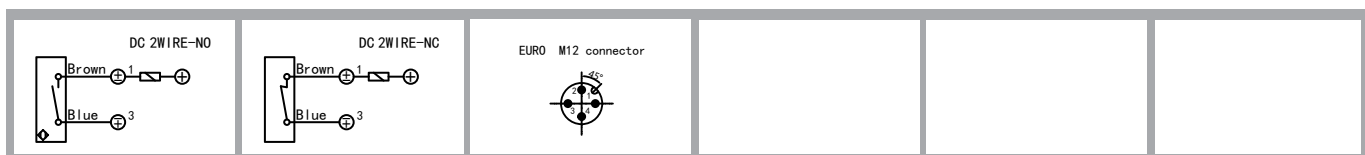
⚠ Tightening torque of the fastening screws: <40Nm!

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**

<b>Electrical data</b>	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
<b>Environment</b>	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
<b>Mechanical data</b>	Ingress protection	IP67
	Housing material	Stainless steel
<b>Electrical connection</b>	Face material	Stainless steel
	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
	(to be ordered separately)	

**Wiring**



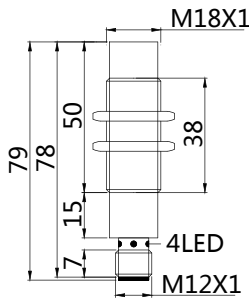


**Features:**

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



**Dimensioned drawing**

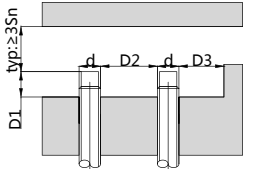


**Model No.**

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**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	Stainless steel
<b>Electrical connection</b>	Connectors	M12 connector
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

**Wiring**



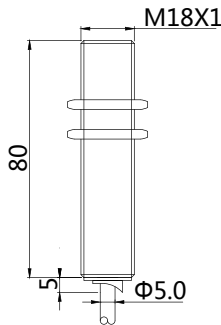


**Features:**

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



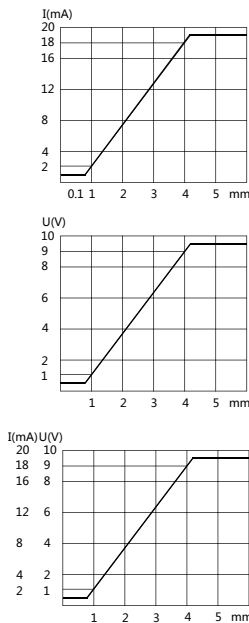
**Dimensioned drawing**



**Model No.**

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

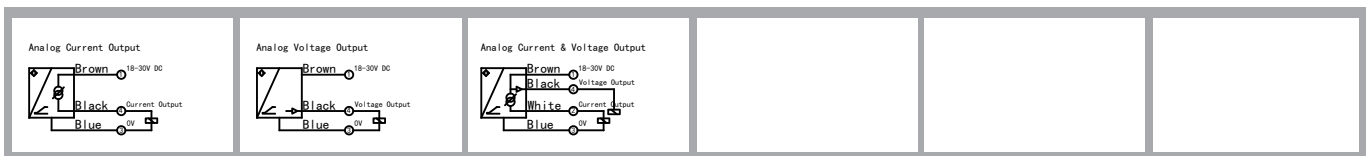
**Deviation curve**



**Technical data**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m;3*0.35mm <sup>2</sup> /4*0.25mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



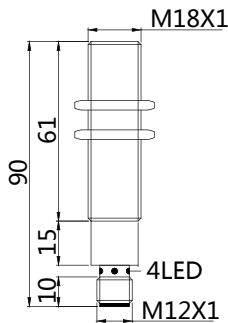


**Features:**

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



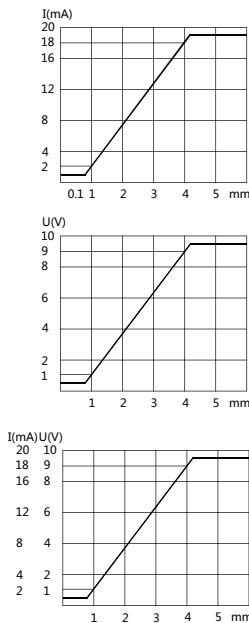
**Dimensioned drawing**



**Model No.**

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

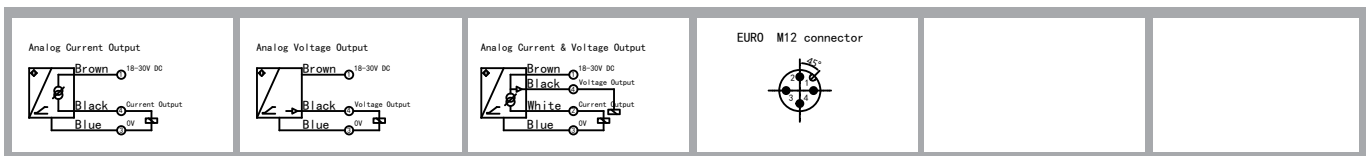
**Deviation curve**



**Technical data**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connectotr
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

**Wiring**



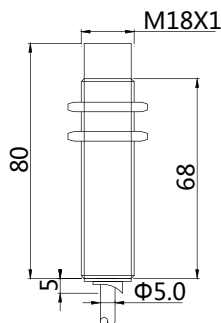


#### Features:

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



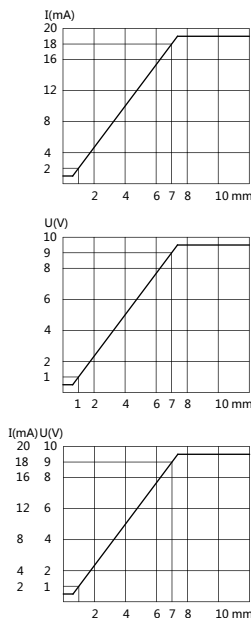
#### Dimensioned drawing



#### Model No.

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

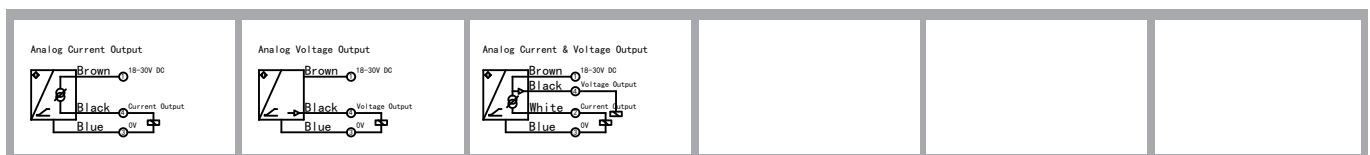
#### Deviation curve



#### Technical data

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PVC cable/2m;3*0.35mm²/4*0.25mm²
<b>Accessories</b>	Accessories	NO (to be ordered separately)

#### Wiring



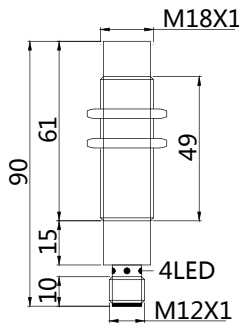


**Features:**

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



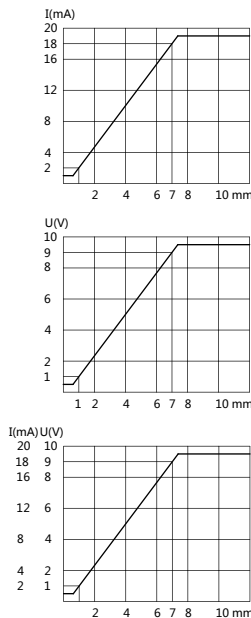
**Dimensioned drawing**



**Model No.**

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

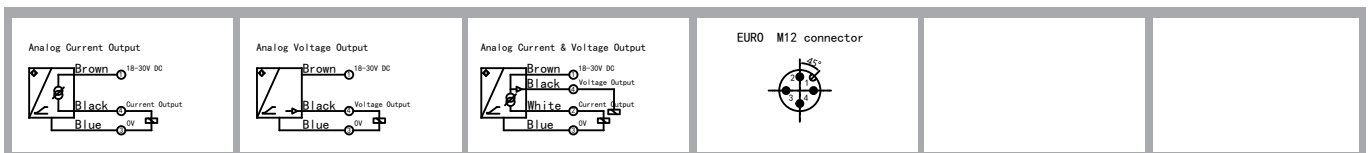
**Deviation curve**



**Technical data**

<b>Electrical data</b>	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
<b>Environment</b>	Ambient temperature	-25...70°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	M12 connectotr
<b>Accessories</b>	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

**Wiring**





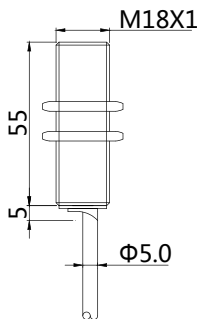


**Features:**

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



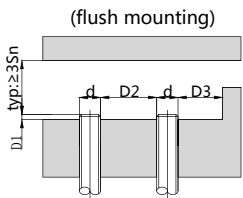
**Dimensioned drawing**



**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

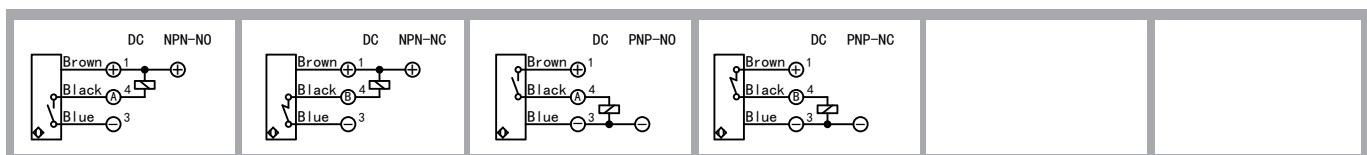
⚠ Tightening torque of the fastening screws: <20Nm!

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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-40...85°C
	Ingress protection	IP67
<b>Mechanical data</b>	Housing material	Brass,nickel-plated
	Face material	PBT
<b>Electrical connection</b>	Connectors	PUR cable/2m ; 3*0.35mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



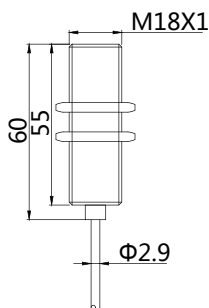


**Features:**

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



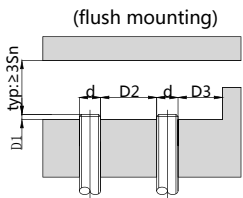
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 5 mm</b>
NPN	<b>BHB-M1805N-V11F2-120</b>
PNP	<b>BHB-M1805P-V11F2-120</b>

**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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...120°C
	Ingress protection	IP66
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	PTFE
<b>Electrical connection</b>	Connectors	PTFE cable/2m ; 3*0.18mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



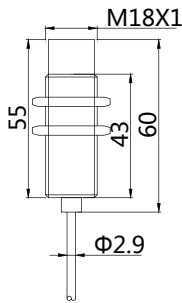


**Features:**

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



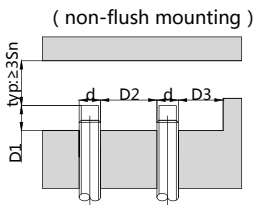
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 8 mm</b>
NPN	<b>BHN-M1808N-V11F2-120</b>
PNP	<b>BHN-M1808P-V11F2-120</b>

**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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...120°C
	Ingress protection	IP66
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	PTFE
<b>Electrical connection</b>	Connectors	PTFE cable/2m ; 3*0.18mm <sup>2</sup>
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



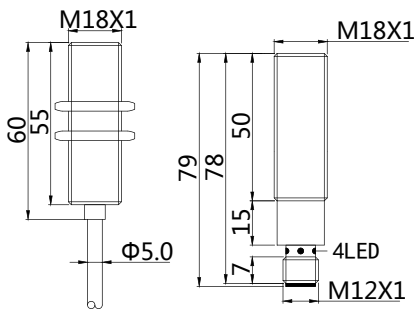


**Features:**

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



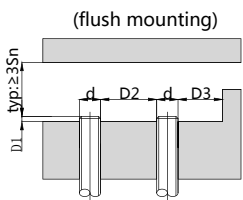
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 5 mm</b>
NPN	<b>BHB-M1805N-V11F3-Z12-150EXT</b>
PNP	<b>BHB-M1805P-V11F3-Z12-150EXT</b>

**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 <sup>2</sup>
		S12 connector
Accessories	Accessories	NO
		(to be ordered separately)

**Wiring**



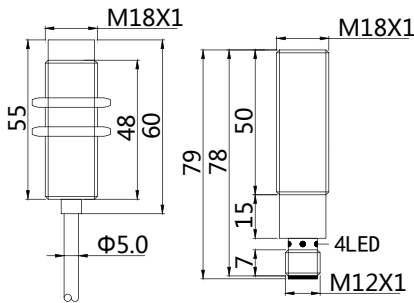


**Features:**

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

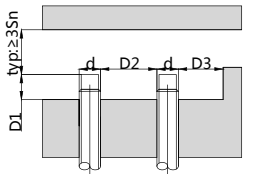


**Dimensioned drawing**



**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	<b>BHN-M1808N-V11F3-Z12-150EXT</b>
PNP	<b>BHN-M1808P-V11F3-Z12-150EXT</b>

**Technical data**

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	800Hz/150°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	
<b>Environment</b>	Ambient temperature	-25...150°C
	Ingress protection	IP66
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	PTFE
<b>Electrical connection</b>	Connectors	PTFE cable/3m ; 3*0.35mm <sup>2</sup> S12 connector
	Accessories	Accessories NO (to be ordered separately)

**Wiring**



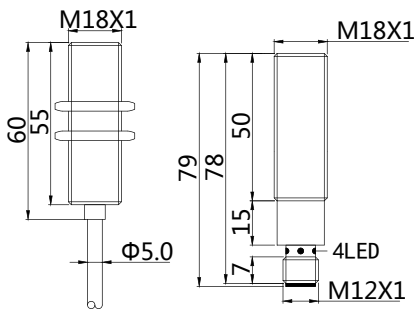


**Features:**

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



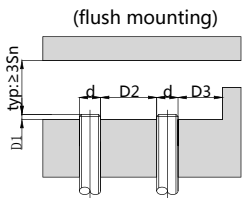
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 5 mm</b>
NPN	<b>BHB-M1805N-V11A3-Z12-180EXT</b>
PNP	<b>BHB-M1805P-V11A3-Z12-180EXT</b>

**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 <sup>2</sup>
		S12 connector
Accessories	Accessories	NO
		(to be ordered separately)

**Wiring**



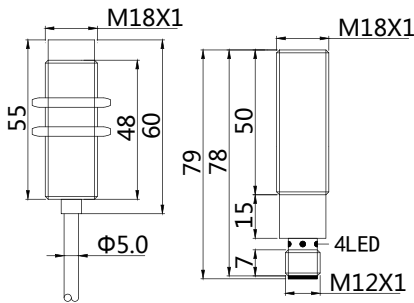


**Features:**

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



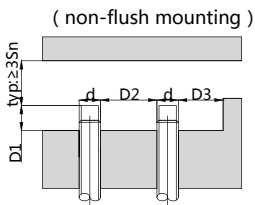
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 8 mm</b>
NPN	<b>BHN-M1808N-V11A3-Z12-180EXT</b>
PNP	<b>BHN-M1808P-V11A3-Z12-180EXT</b>

**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**

<b>Electrical data</b>	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	
<b>Environment</b>	Ambient temperature	-25...180°C
	Ingress protection	IP66
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	PTFE
<b>Electrical connection</b>	Connectors	KFF46PH cable/3m ; 3*0.26mm <sup>2</sup>
		S12 connector
<b>Accessories</b>	Accessories	NO
		(to be ordered separately)

**Wiring**



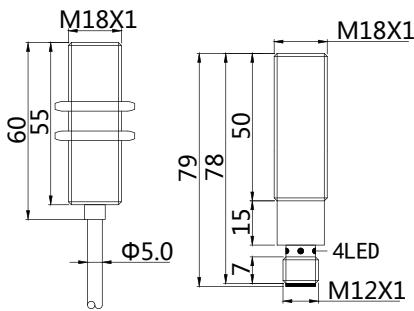


**Features:**

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



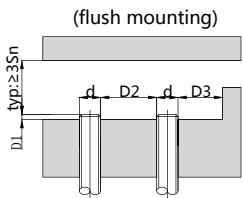
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 5 mm</b>
NPN	<b>BHB-M1805N-V11A3-Z12-230EXT</b>
PNP	<b>BHB-M1805P-V11A3-Z12-230EXT</b>

**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 <sup>2</sup>
		S12 connector
Accessories	Accessories	NO
		(to be ordered separately)

**Wiring**





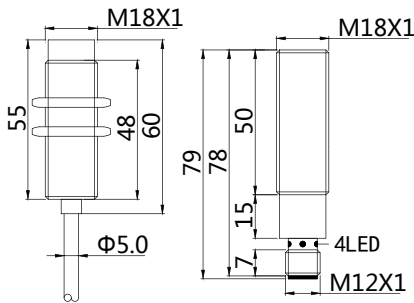


**Features:**

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



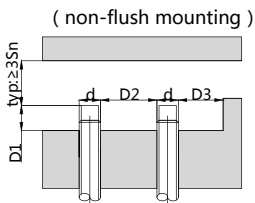
**Dimensioned drawing**



**Model No.**

Sensing range	<b>Sn: 8 mm</b>
NPN	<b>BHN-M1808N-V11A3-Z12-230EXT</b>
PNP	<b>BHN-M1808P-V11A3-Z12-230EXT</b>

**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**

<b>Electrical data</b>	Operating voltage	10-30V DC
	Switching frequency	500Hz/230°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	
<b>Environment</b>	Ambient temperature	-25...230°C
	Ingress protection	IP66
<b>Mechanical data</b>	Housing material	Stainless steel
	Face material	PTFE
<b>Electrical connection</b>	Connectors	KFF46PH cable/3m ; 3*0.26mm <sup>2</sup> S12 connector
	<b>Accessories</b>	Accessories NO (to be ordered separately)

**Wiring**



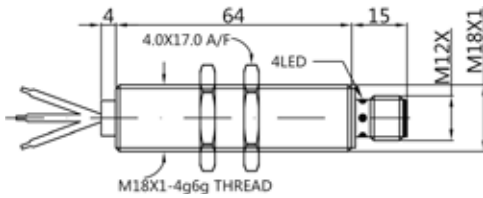
Attachment "M" external amplifier (M18 connector)

Features:



- M18 threaded cylindrical shell
- Suitable for piercing/bracket assembly
- LED yellow indicator light
- Stainless steel case
- The factory calibration
- Electrode reverse protection
- Output overload protection
- Output short circuit protection
- Protection grade IP66

Dimensioned drawing



Technical data

Power supply voltage	10–30VDC
Rated voltage	10–30VDC
No load current	<10mA
Output way	NPN N. O/N. C or PNP N. O/N. C
Maximum load current	200mA
Pressure drop	<2.0VDC
Outside temperature	–25...70°C

Cable/connector

All high temperature components are designed to be connected directly to sensors/amplifiers via cables for the M18 and larger size sensors. For its access to LEMO connection system, it has been widely received in many industrial design fields. The following table shows the access method of LEMO connection system (note: our products are not only limited to the common LEMO connection system in European countries, but also can be made according to the requirements of your connection system).



Cable indicators

HT separated sensor is equipped with PFA teflon cable, which can resist most chemical erosion. Please contact our technical sales department for details.

Technical note

All products operate independently with high precision and can be customized according to customer requirements.

Technical data

Power supply voltage	10–30VDC
Rated voltage	10–30VDC
No load current	<10mA
Output way	NPN N. O/N. C or PNP N. O/N. C
Maximum load current	200mA
Pressure drop	<2.0VDC
Outside temperature	–25...70°C