

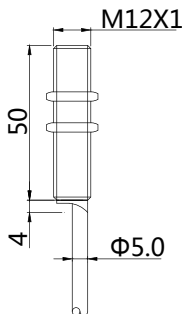


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4/6mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

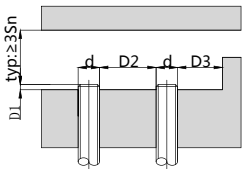


Model No.

Sensing range	Sn:4 mm	Sn:6 mm
NPN N. O	BB-M1204N-C11P2	BB-M1206N-C11P2
NPN N. C	BB-M1204N-C21P2	BB-M1206N-C21P2
PNP N. O	BB-M1204P-C11P2	BB-M1206P-C11P2
PNP N. C	BB-M1204P-C21P2	BB-M1206P-C21P2

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1204	≥1	≥12	≥12
M1206	≥2.5	≥12	≥12

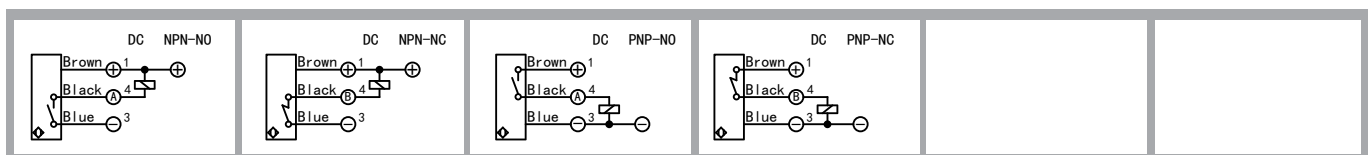
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	3000Hz/800Hz
	Voltage drop	≤2.0V
	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 ²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring



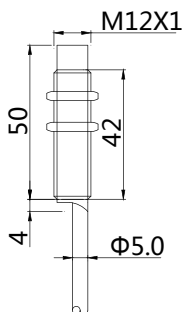


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 8/10mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



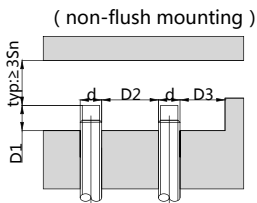
Dimensioned drawing



Model No.

Sensing range	Sn:8 mm	Sn:10 mm
NPN N. O	BN-M1208N-C11P2	BN-M1210N-C11P2
NPN N. C	BN-M1208N-C21P2	BN-M1210N-C21P2
PNP N. O	BN-M1208P-C11P2	BN-M1210P-C11P2
PNP N. C	BN-M1208P-C21P2	BN-M1210P-C21P2

Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12
M1210	≥12	≥36	≥12

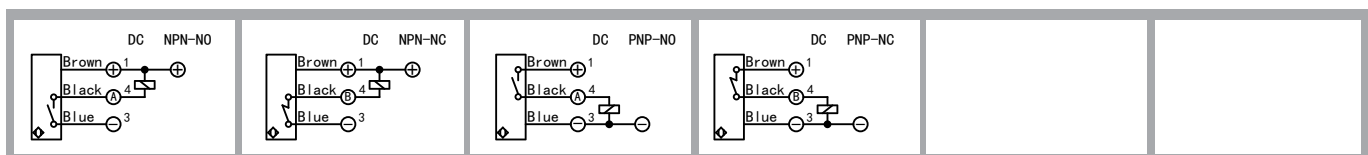
⚠ Tightening torque of the fastening screws: <10Nm!

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/400Hz
	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 ²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring



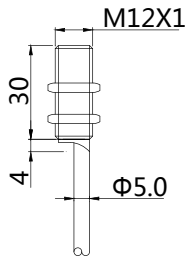


Features:

- M12*1 mm short body , Brass,nickel-plated housing;
- 4/6mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

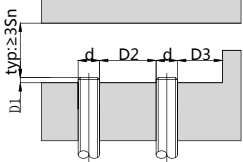


Model No.

Sensing range	Sn:4 mm	Sn:6 mm
NPN N. O	BB-M1204N-C11P2-S	BB-M1206N-C11P2-S
NPN N. C	BB-M1204N-C21P2-S	BB-M1206N-C21P2-S
PNP N. O	BB-M1204P-C11P2-S	BB-M1206P-C11P2-S
PNP N. C	BB-M1204P-C21P2-S	BB-M1206P-C21P2-S

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1204	≥1	≥12	≥12
M1206	≥2.5	≥12	≥12

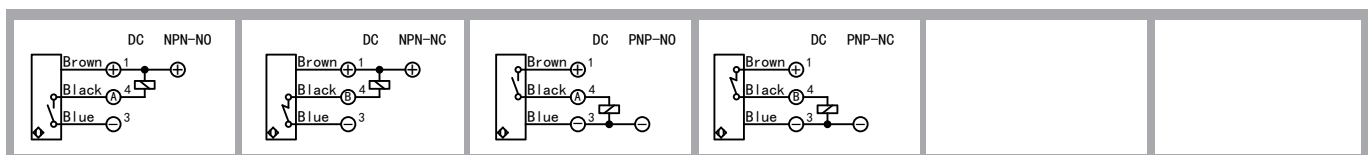
⚠ Tightening torque of the fastening screws:
<10Nm!

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

Technical data

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

Wiring

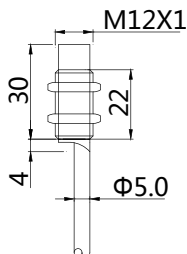


Features:

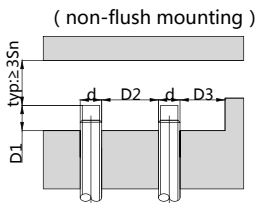
- M12*1 mm short body , Brass,nickel-plated housing;
- 8/10mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12
M1210	≥12	≥36	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

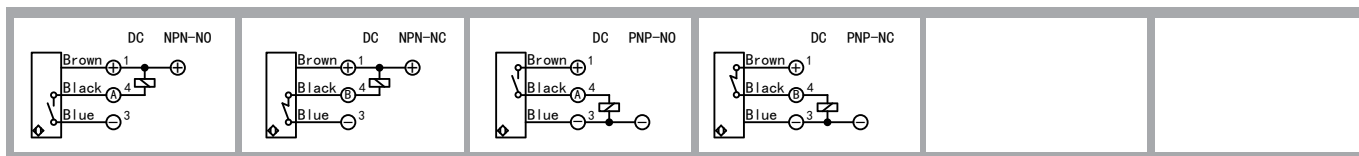
Model No.

Sensing range	Sn:8 mm	Sn:10 mm
NPN N. O	BN-M1208N-C11P2-S	BN-M1210N-C11P2-S
NPN N. C	BN-M1208N-C21P2-S	BN-M1210N-C21P2-S
PNP N. O	BN-M1208P-C11P2-S	BN-M1210P-C11P2-S
PNP N. C	BN-M1208P-C21P2-S	BN-M1210P-C21P2-S

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz/400Hz
	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 ²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring

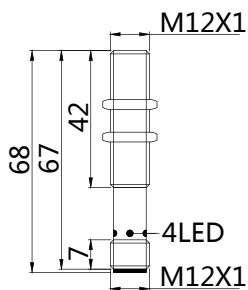


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4/6mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

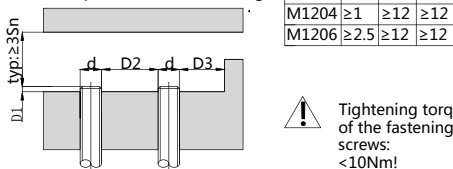


Model No.

Sensing range	Sn:4 mm	Sn:6 mm
NPN N. O	BB-M1204N-C11S12	BB-M1206N-C11S12
NPN N. C	BB-M1204N-C21S12	BB-M1206N-C21S12
PNP N. O	BB-M1204P-C11S12	BB-M1206P-C11S12
PNP N. C	BB-M1204P-C21S12	BB-M1206P-C21S12

Mounting

(flush/quasi-flush mounting)

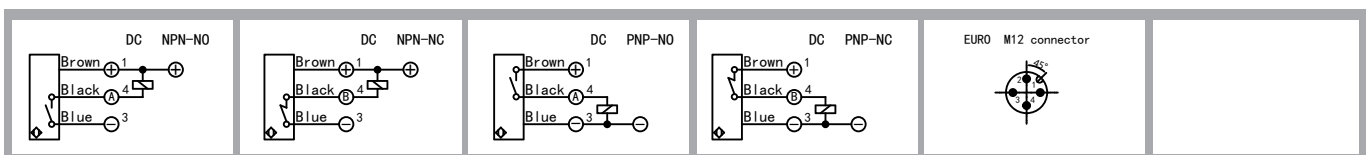


Correction Factor	Factor
Nav-ferrous metal	1
Fe360	1
Aluminum	0.35~0.45
Brass	0.35~0.5
Copper	0.25~0.45
Stainless steel	0.6~1.0
Cast Iron	0.93~1.05
Nickel	0.65~0.75

Technical data

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

Wiring

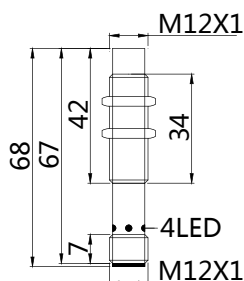


Features:

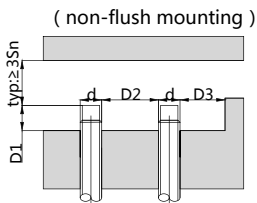
- M12*1 mm , Brass,nickel-plated housing;
- 8/10mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12
M1210	≥12	≥36	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

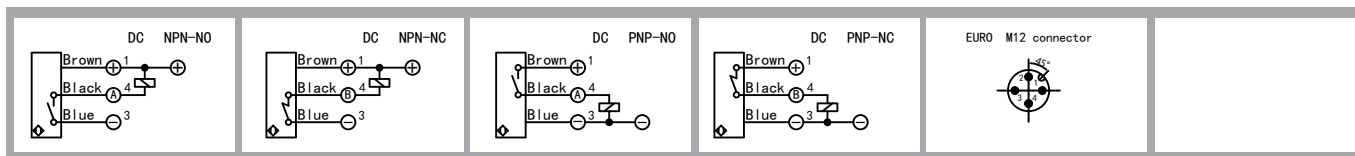
Model No.

Sensing range	Sn:8 mm	Sn:10 mm
NPN N. O	BN-M1208N-C11S12	BN-M1210N-C11S12
NPN N. C	BN-M1208N-C21S12	BN-M1210N-C21S12
PNP N. O	BN-M1208P-C11S12	BN-M1210P-C11S12
PNP N. C	BN-M1208P-C21S12	BN-M1210P-C21S12

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz/400Hz
	Voltage drop	≤2.0V
	Leakge current	<0.01mA
	Load current	200mA
	No load current	≤10mA(24V)
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
	Polarity reversal protection	Yes
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring

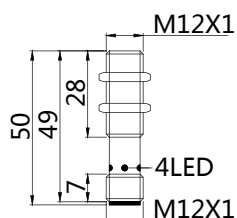


Features:

- M12*1 mm short body , Brass,nickel-plated housing;
- 4/6mm , flush/quasi-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

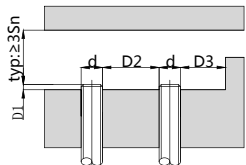


Model No.

Sensing range	Sn:4 mm	Sn:6 mm
NPN N. O	BB-M1204N-C11S12-S	BB-M1206N-C11S12-S
NPN N. C	BB-M1204N-C21S12-S	BB-M1206N-C21S12-S
PNP N. O	BB-M1204P-C11S12-S	BB-M1206P-C11S12-S
PNP N. C	BB-M1204P-C21S12-S	BB-M1206P-C21S12-S

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1204	≥1	≥12	≥12
M1206	≥2.5	≥12	≥12

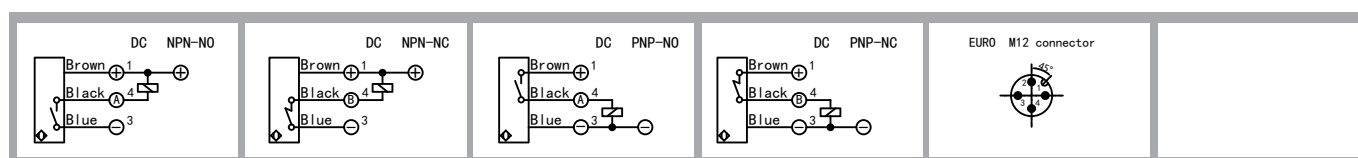
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring

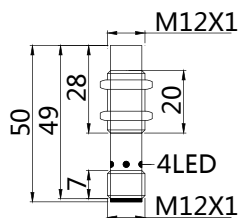


Features:

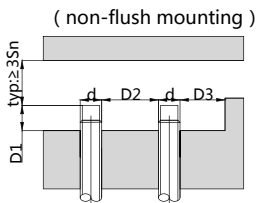
- M12*1 mm short body , Brass,nickel-plated housing;
- 8/10mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12
M1210	≥12	≥36	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

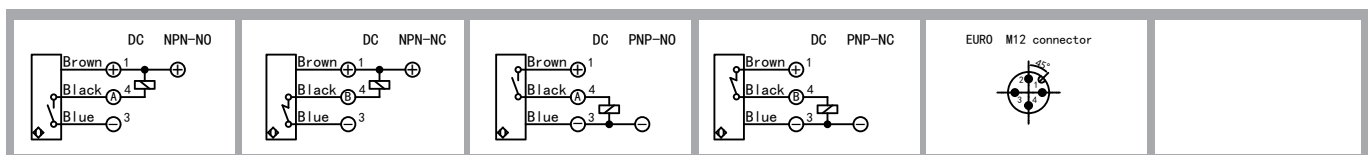
Model No.

Sensing range	Sn:8 mm	Sn:10 mm
NPN N. O	BN-M1208N-C11S12-S	BN-M1210N-C11S12-S
NPN N. C	BN-M1208N-C21S12-S	BN-M1210N-C21S12-S
PNP N. O	BN-M1208P-C11S12-S	BN-M1210P-C11S12-S
PNP N. C	BN-M1208P-C21S12-S	BN-M1210P-C21S12-S

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz/400Hz
	Voltage drop	≤2.0V
	Leakge current	<0.01mA
	Load current	200mA
	No load current	≤10mA(24V)
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
	Polarity reversal protection	Yes
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring



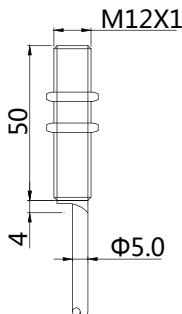


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , flush mountable;
- DC 2-wire , switching output;
- Cable



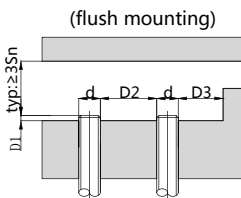
Dimensioned drawing



Model No.

Sensing range	Sn:4 mm
N.O	BB-M1204C-C13P2
N.C	BB-M1204C-C23P2

Mounting



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-60V DC
	Switching frequency	1000Hz
	Voltage drop	≤4.5V
	Load current	200mA
	Leakge current	≤0.5mA
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	PVC cable/2m ; 2*0.5mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring



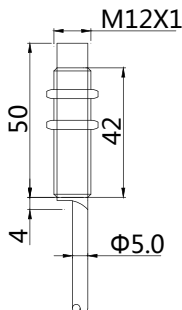


Features:

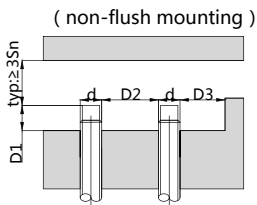
- M12*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Model No.

Sensing range	Sn:8 mm
N.O	BN-M1208C-C13P2
N.C	BN-M1208C-C23P2

Technical data

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

(to be ordered separately)

Wiring



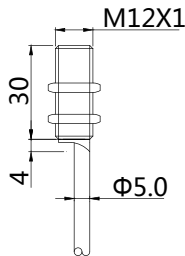


Features:

- M12*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 4mm , flush mountable;
- DC 2-wire , switching output;
- Cable



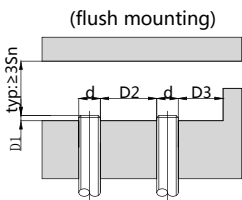
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
N. O	BB-M1204C-C13P2-S
N. C	BB-M1204C-C23P2-S

Mounting



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-60V DC
	Switching frequency	1000Hz
	Voltage drop	≤4.5V
	Load current	200mA
	Leakge current	≤0.5mA
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
Environment	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
Mechanical data	Ingress protection	IP67
	Housing material	Brass,nickel-plated
Electrical connection	Face material	PBT
	Connectors	PVC cable/2m ; 2*0.5mm ²
Accessories	Accessories	NO

(to be ordered separately)

Wiring

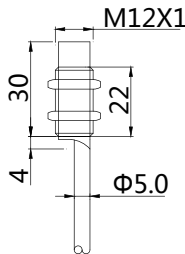


Features :

- M12*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



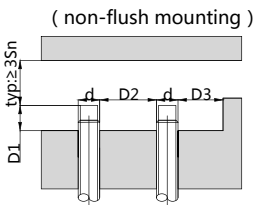
Dimensioned drawing



Model No.

Sensing range	Sn : 8 mm
N. O	BN-M1208C-C13P2-S
N. C	BN-M1208C-C23P2-S

Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

(to be ordered separately)

Wiring



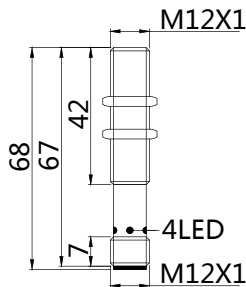


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



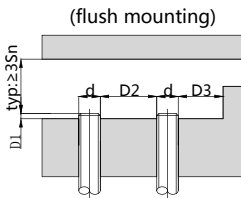
Dimensioned drawing



Model No.

Sensing range	Sn :4 mm
N. O	BB-M1204C-C13S12
N. C	BB-M1204C-C23S12

Mounting



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-60V DC
	Switching frequency	1000Hz
	Voltage drop	≤4.5V
	Load current	200mA
	Leakge current	≤0.5mA
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
Environment	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
Mechanical data	Ingress protection	IP67
	Housing material	Brass,nickel-plated
Electrical connection	Face material	PBT
	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring

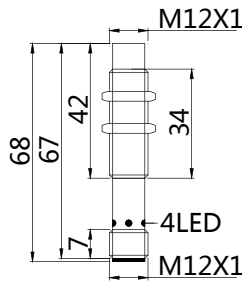


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



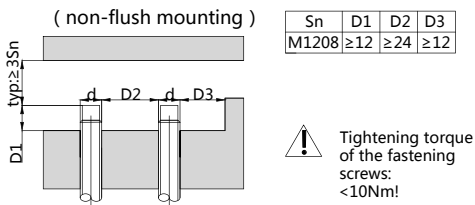
Dimensioned drawing



Model No.

Sensing range	Sn:8 mm
N. O	BN-M1208C-C13S12
N. C	BN-M1208C-C23S12

Mounting



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

Technical data

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

Wiring

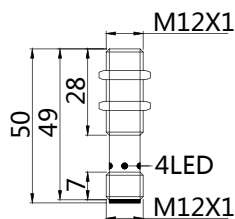


Features:

- M12*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 4mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



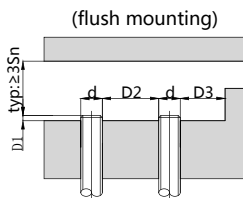
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
N. O	BB-M1204C-C13S12-S
N. C	BB-M1204C-C23S12-S

Mounting



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

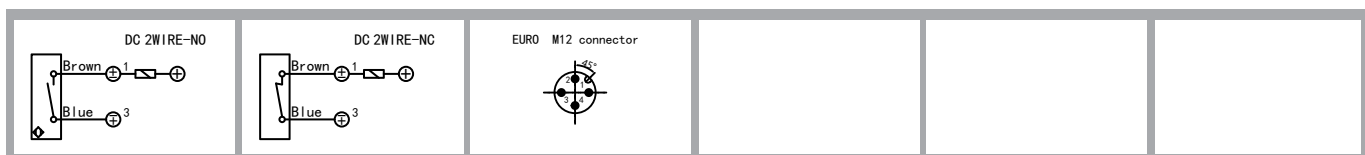
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-60V DC
	Switching frequency	1000Hz
	Voltage drop	≤4.5V
	Load current	200mA
	Leakge current	≤0.5mA
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
Environment	Polarity reversal protection	Yes
	Ambient temperature	-25...70°C
Mechanical data	Ingress protection	IP67
	Housing material	Brass,nickel-plated
Electrical connection	Face material	PBT
	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2
	(to be ordered separately)	

Wiring

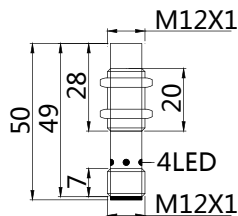


Features :

- M12*1 mm , Brass,nickel-plated housing;
- The shortest body , compact construction;
- 8mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



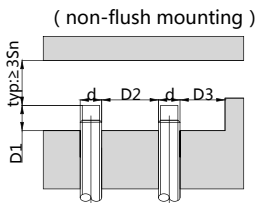
Dimensioned drawing



Model No.

Sensing range	Sn : 8 mm
N. O	BN-M1208C-C13S12-S
N. C	BN-M1208C-C23S12-S

Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12

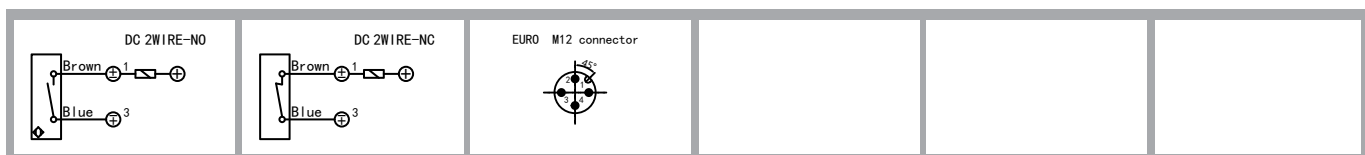
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring



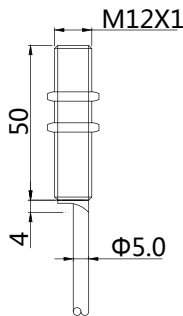


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , flush mountable;
- DC 4-wire , switching output;
- Cable



Dimensioned drawing

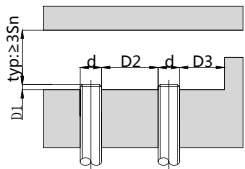


Model No.

Sensing range	Sn:4 mm
NPN N. O+N. C	BB-M1204N-C31P2
PNP N. O+N. C	BB-M1204P-C31P2

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring



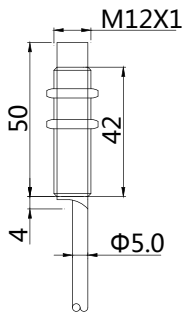


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- DC 4-wire , switching output;
- Cable



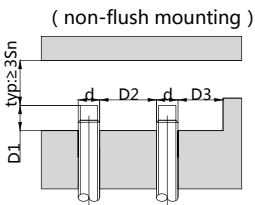
Dimensioned drawing



Model No.

Sensing range	Sn:8 mm
NPN N. O+N. C	BN-M1208N-C31P2
PNP N. O+N. C	BN-M1208P-C31P2

Mounting



Sn	D1	D2	D3
M1208	≥12	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Wiring

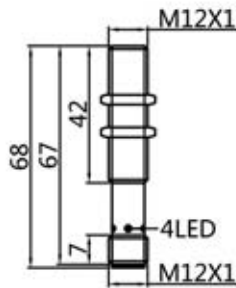


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , flush mountable;
- DC 4-wire , switching output;
- Connector versions



Dimensioned drawing

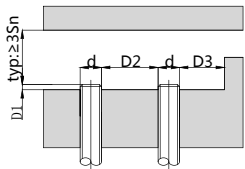


Model No.

Sensing range	Sn:4 mm
NPN N. O+N. C	BB-M1204N-C31S12
PNP N. O+N. C	BB-M1204P-C31S12

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring

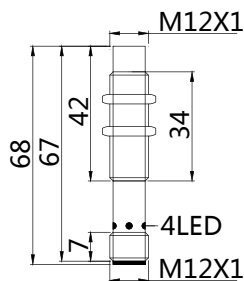


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 8mm , non-flush mountable;
- DC 4-wire , switching output;
- Connector versions



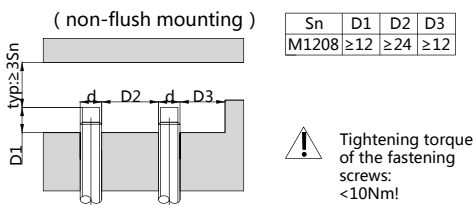
Dimensioned drawing



Model No.

Sensing range	Sn:8 mm
NPN N. O+N. C	BN-M1208N-C31S12
PNP N. O+N. C	BN-M1208P-C31S12

Mounting

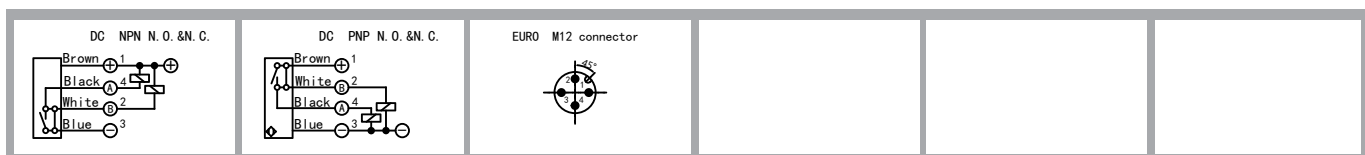


Correction Factor	
Nav-ferrous metal	Factor
Fe360	1
Aluminum	0.35~0.45
Brass	0.35~0.5
Copper	0.25~0.45
Stainless steel	0.6~1.0
Cast Iron	0.93~1.05
Nickel	0.65~0.75

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Voltage drop	≤2.0V
	Leakge current	<0.01mA
	Load current	200mA
	No load current	≤10mA(24V)
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
	Polarity reversal protection	Yes
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring



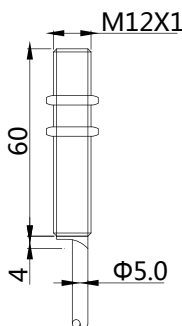


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 2/4mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



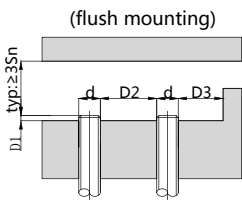
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm	Sn:4 mm
N. O	BB-M1202A-C14P2	BB-M1204A-C14P2
N. C	BB-M1202A-C24P2	BB-M1204A-C24P2
N. O	BB-M1202U-C15P2	BB-M1204U-C15P2
N. C	BB-M1202U-C25P2	BB-M1204U-C25P2

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring



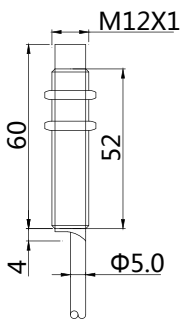


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Cable



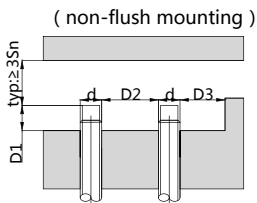
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
N. O	BN-M1204A-C14P2
N. C	BN-M1204A-C24P2
N. O	BN-M1204U-C15P2
N. C	BN-M1204U-C25P2

Mounting



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring



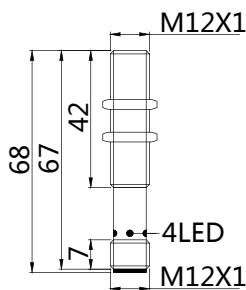


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 2/4mm , flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



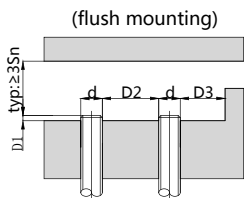
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm	Sn:4 mm
N. O	BB-M1202A-C14S12	BB-M1204A-C14S12
N. C	BB-M1202A-C24S12	BB-M1204A-C24S12
N. O	BB-M1202U-C15S12	BB-M1204U-C15S12
N. C	BB-M1202U-C25S12	BB-M1204U-C25S12

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

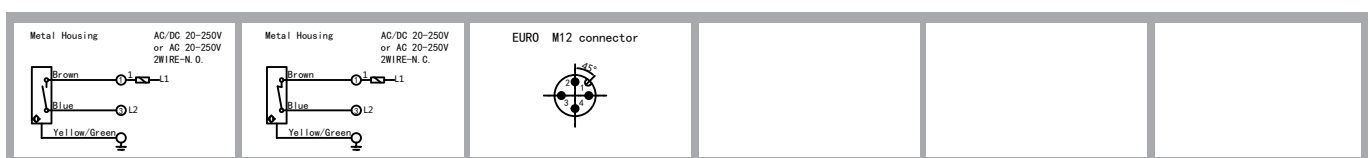
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring

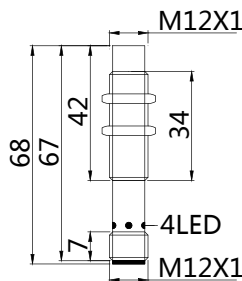


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , non-flush mountable;
- AC 2-wire , AC/DC 2-wire , switching output;
- Momentary current:5A(20ms)/2.2A(20ms)
- Connector versions



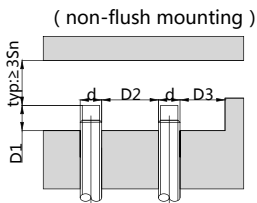
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
N. O	BN-M1204A-C14S12
N. C	BN-M1204A-C24S12
N. O	BN-M1204U-C15S12
N. C	BN-M1204U-C25S12

Mounting



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

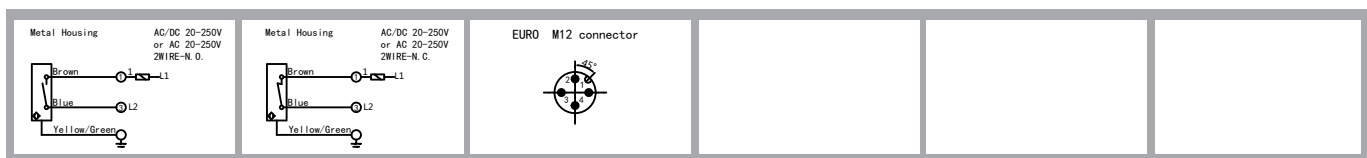
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring

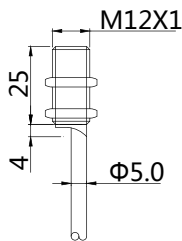


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 2mm , flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable



Dimensioned drawing

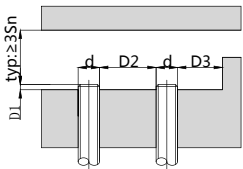


Model No.

Sensing range	Sn:2 mm
N. 0	BB-M1202NA-C10P2

Mounting

(flush/quasi-flush mounting)



Sn	D1	D2	D3
M1202	≥0	≥12	≥12

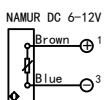
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	6-12V DC
	Switching frequency	2000Hz
	Leakge current	>2.2mA(OFF), <1.1mA(ON)
	Hysteresis	<15%(Sr)
	Repeatability	<2.0%(Sr)
	Power-up delay	≤10ms
	Temperature drift	<10%(Sr)
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	PVC cable/2m ; 2*0.5mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring



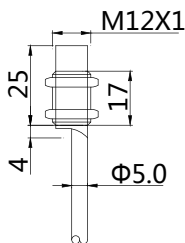


Features :

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , non-flush mountable;
- NAMUR DC 2-wire , switching output;
- Cable



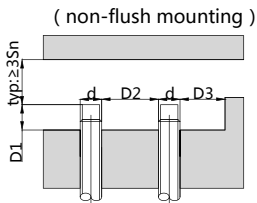
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm
N. 0	BN-M1204NA-C10P2

Mounting



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

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

Wiring

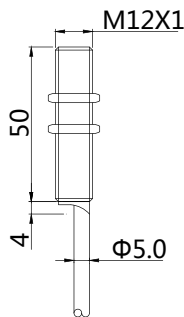


Features:

- M12*1 mm , Full stainless steel housing;
- 2/4mm , flush mountable;
- DC 3-wire , switching output;
- Cable



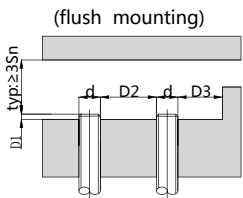
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm	Sn:4 mm
NPN N. O	BFB-M1202N-V11P2	BFB-M1204N-V11P2
NPN N. C	BFB-M1202N-V21P2	BFB-M1204N-V21P2
PNP N. O	BFB-M1202P-V11P2	BFB-M1204P-V11P2
PNP N. C	BFB-M1202P-V21P2	BFB-M1204P-V21P2

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

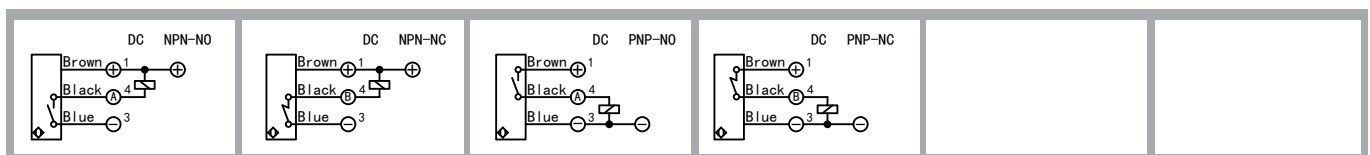
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring



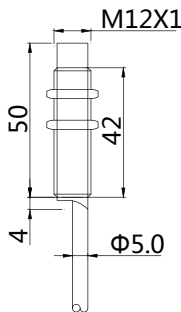


Features:

- M12*1 mm , Full stainless steel housing;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

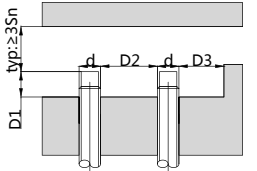


Model No.

Sensing range	Sn:4 mm
NPN N. O	BFN-M1204N-V11P2
NPN N. C	BFN-M1204N-V21P2
PNP N. O	BFN-M1204P-V11P2
PNP N. C	BFN-M1204P-V21P2

Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

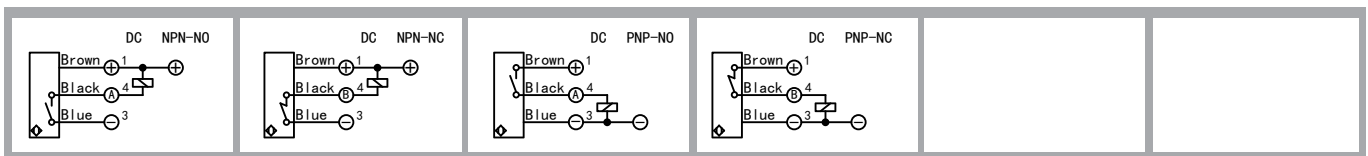
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

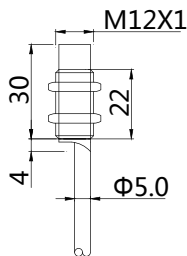


Features:

- M12*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 2/4mm , flush mountable;
- DC 3-wire , switching output;
- Cable



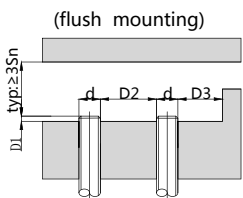
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm	Sn:4 mm
NPN N. O	BFB-M1202N-V11P2-S	BFB-M1204N-V11P2-S
NPN N. C	BFB-M1202N-V21P2-S	BFB-M1204N-V21P2-S
PNP N. O	BFB-M1202P-V11P2-S	BFB-M1204P-V11P2-S
PNP N. C	BFB-M1202P-V21P2-S	BFB-M1204P-V21P2-S

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

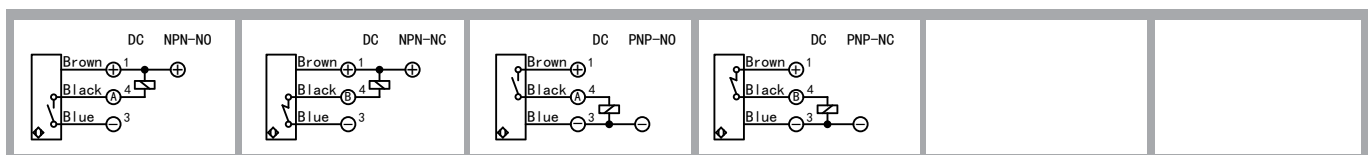
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

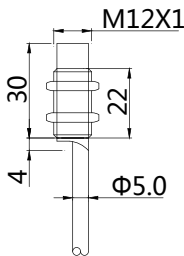


Features :

- M12*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Cable



Dimensioned drawing

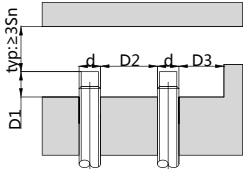


Model No.

Sensing range	Sn:4 mm
NPN N. O	BFN-M1204N-V11P2-S
NPN N. C	BFN-M1204N-V21P2-S
PNP N. O	BFN-M1204P-V11P2-S
PNP N. C	BFN-M1204P-V21P2-S

Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

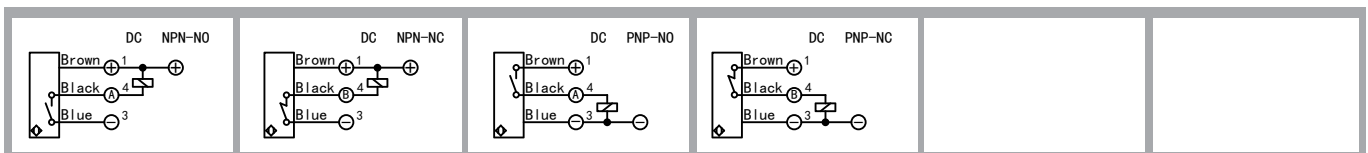
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

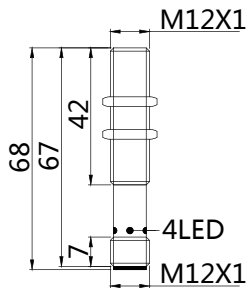


Features:

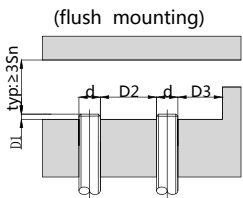
- M12*1 mm , Full stainless steel housing;
- 2/4mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

⚠ Tightening torque of the fastening screws: <30Nm!

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

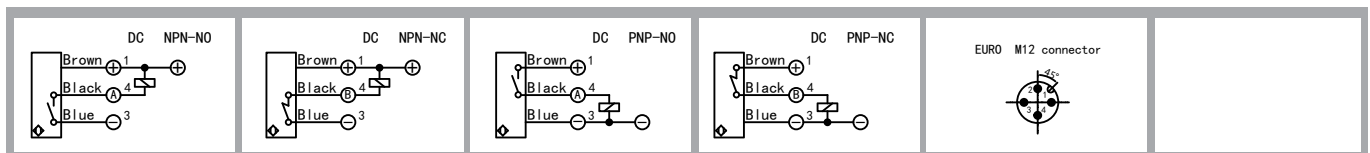
Model No.

Sensing range	Sn: 2 mm	Sn: 4 mm
NPN N. O	BFB-M1202N-V11S12	BFB-M1204N-V11S12
NPN N. C	BFB-M1202N-V21S12	BFB-M1204N-V21S12
PNP N. O	BFB-M1202P-V11S12	BFB-M1204P-V11S12
PNP N. C	BFB-M1202P-V21S12	BFB-M1204P-V21S12

Technical data

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

Wiring

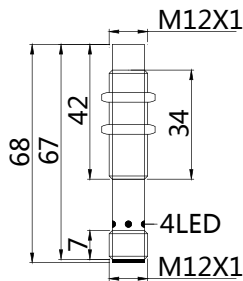


Features:

- M12*1 mm , Full stainless steel housing;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



Dimensioned drawing

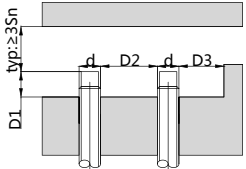


Model No.

Sensing range	Sn:4 mm
NPN N. O	BFN-M1204N-V11S12
NPN N. C	BFN-M1204N-V21S12
PNP N. O	BFN-M1204P-V11S12
PNP N. C	BFN-M1204P-V21S12

Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

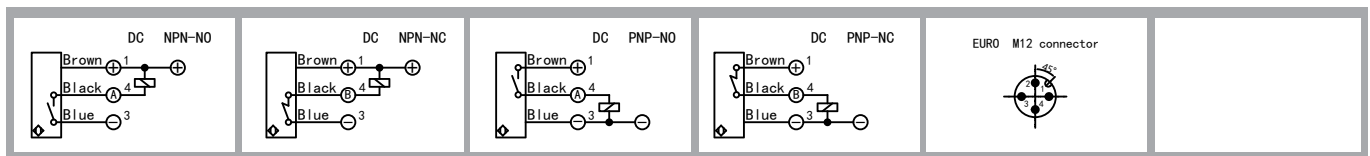
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

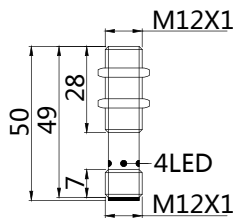


Features:

- M12*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 2/4mm , flush mountable;
- DC 3-wire , switching output;
- Connector versions



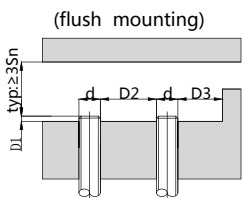
Dimensioned drawing



Model No.

Sensing range	Sn:2 mm	Sn:4 mm
NPN N. O	BFB-M1202N-V11S12-S	BFB-M1204N-V11S12-S
NPN N. C	BFB-M1202N-V21S12-S	BFB-M1204N-V21S12-S
PNP N. O	BFB-M1202P-V11S12-S	BFB-M1204P-V11S12-S
PNP N. C	BFB-M1202P-V21S12-S	BFB-M1204P-V21S12-S

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12
M1204	≥1	≥12	≥12

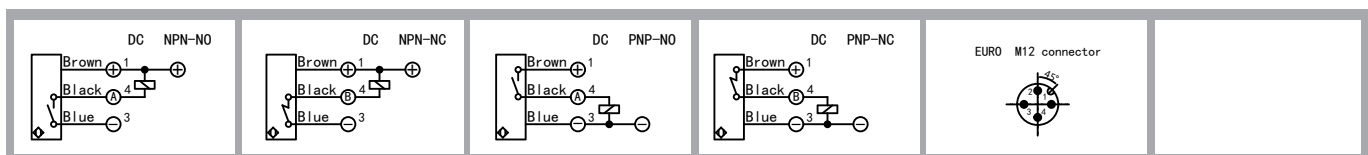
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

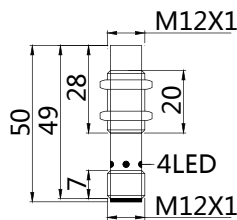


Features :

- M12*1 mm , Full stainless steel housing;
- The shortest body , compact construction;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Connector versions



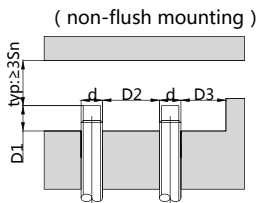
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
NPN N. O	BFN-M1204N-V11S12-S
NPN N. C	BFN-M1204N-V21S12-S
PNP N. O	BFN-M1204P-V11S12-S
PNP N. C	BFN-M1204P-V21S12-S

Mounting



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

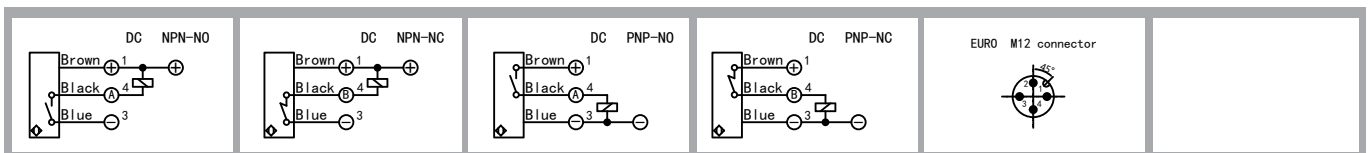
⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring



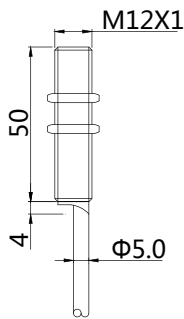


Features:

- M12*1 mm , Full stainless steel housing;
- 2mm , flush mountable;
- DC 2-wire , switching output;
- Cable



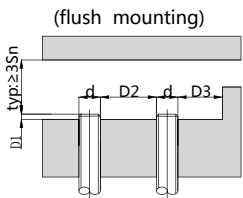
Dimensioned drawing



Model No.

Sensing range	Sn: 2 mm
N. O	BFB-M1202C-V13P2
N. C	BFB-M1202C-V23P2

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12

⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring



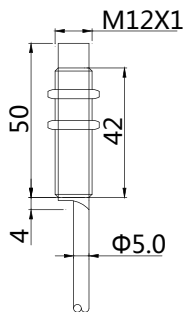


Features:

- M12*1mm , Full stainless steel housing;
- 4mm , non-flush mountable;
- DC 2-wire , switching output;
- Cable



Dimensioned drawing

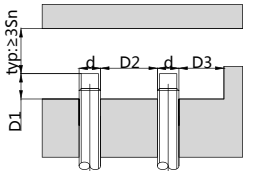


Model No.

Sensing range	Sn:4 mm
N. O	BFN-M1204C-V13P2
N. C	BFN-M1204C-V23P2

Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

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

Wiring

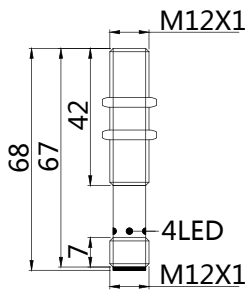


Features:

- M12*1 mm , Full stainless steel housing;
- 2mm , flush mountable;
- DC 2-wire , switching output;
- Connector versions



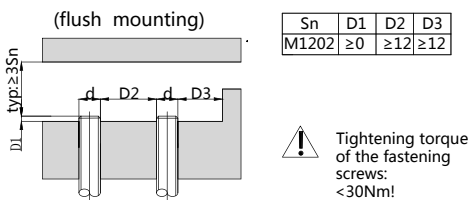
Dimensioned drawing



Model No.

Sensing range	Sn: 2 mm
N. O	BFB-M1202C-V13S12
N. C	BFB-M1202C-V23S12

Mounting



Sn	D1	D2	D3
M1202	≥ 0	≥ 12	≥ 12

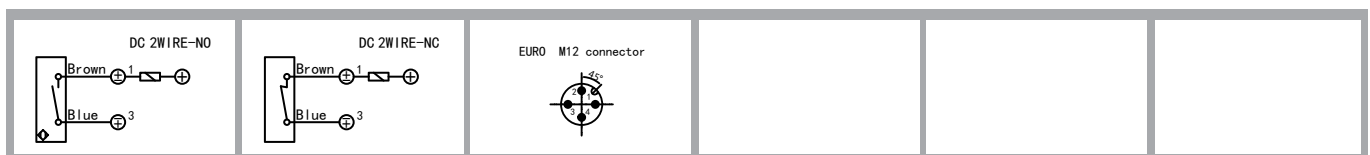
⚠ Tightening torque of the fastening screws: $<30\text{Nm}$

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

Technical data

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

Wiring

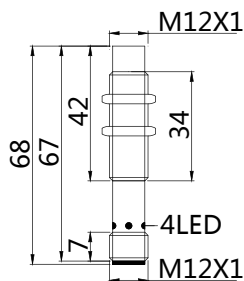


Features:

- M12*1mm , Full stainless steel housing;
- 4mm , non-flush mountable;
- DC 2-wire , switching output;
- Connector versions



Dimensioned drawing

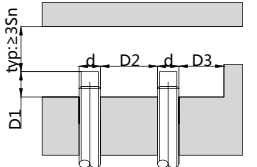


Model No.

Sensing range	Sn:4 mm
N. O	BFN-M1204C-V13S12
N. C	BFN-M1204C-V23S12

Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <30Nm!

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

Technical data

Electrical data	Operating voltage	10-60V DC
	Switching frequency	100Hz
	Voltage drop	≤1.5V
	Leakage current	≤0.8mA
	Load current	200mA
	Hysteresis	<15%(Sr)
	Repeatability	<1.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
Environment	Ambient temperature	-25...70°C
	Ingress protection	IP67
Mechanical data	Housing material	Stainless steel
	Face material	Stainless steel
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

Wiring



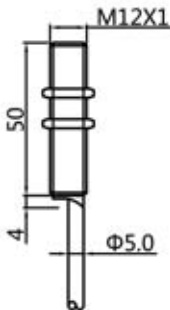


Features:

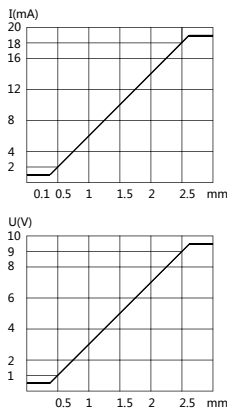
- M12*1 mm , Brass,nickel-plated housing;
- 0.1-3.0mm , flush mountable;
- DC 3-wire , analog output;
- Cable



Dimensioned drawing



Deviation curve



Model No.

Sensing range	Sn:0.1-3.0 mm
0-20mA	BAB-M1203-CI2P2
0-10V	BAB-M1203-CV2P2

Technical data

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

Wiring



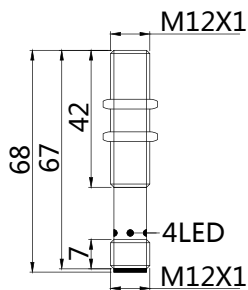


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 0.1-3.0mm , flush mountable;
- DC 3-wire , analog output;
- Connector versions



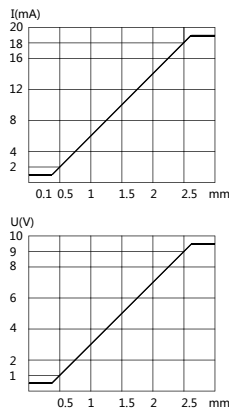
Dimensioned drawing



Model No.

Sensing range	Sn:0.1–3.0 mm
0–20mA	BAB-M1203-CI2S12
0–10V	BAB-M1203-CV2S12

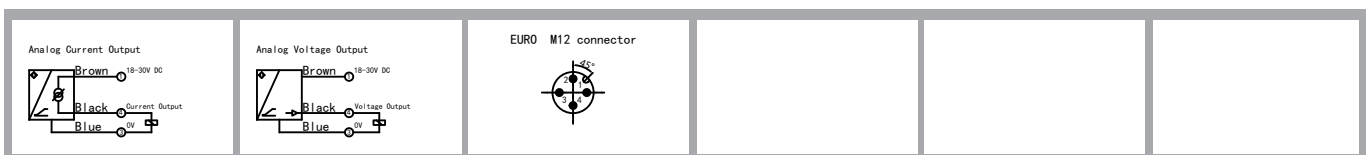
Deviation curve



Technical data

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

Wiring



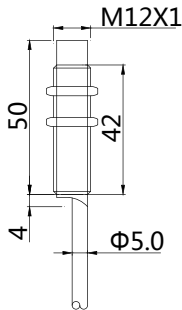


Features:

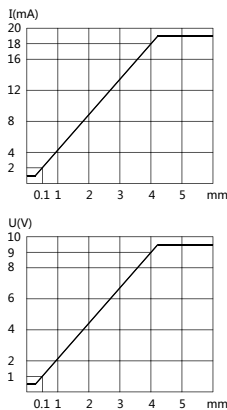
- M12*1 mm , Brass,nickel-plated housing;
- 0.1-4.0mm , non-flush mountable;
- DC 3-wire , analog output;
- Cable



Dimensioned drawing



Deviation curve



Model No.

Sensing range	Sn:0.1-4.0 mm
0-20mA	BAN-M1204-CI2P2
0-10V	BAN-M1204-CV2P2

Technical data

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

Wiring



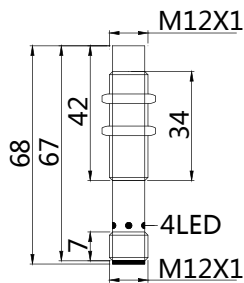


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 0.1-4.0mm , non-flush mountable;
- DC 3-wire , analog output;
- Connector versions



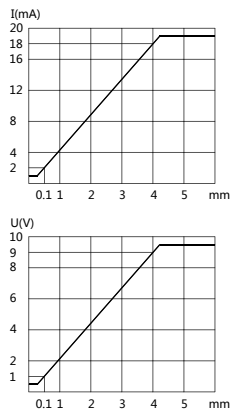
Dimensioned drawing



Model No.

Sensing range	Sn:0.1–4.0 mm
0–20mA	BAN-M1204-CI2S12
0–10V	BAN-M1204-CV2S12

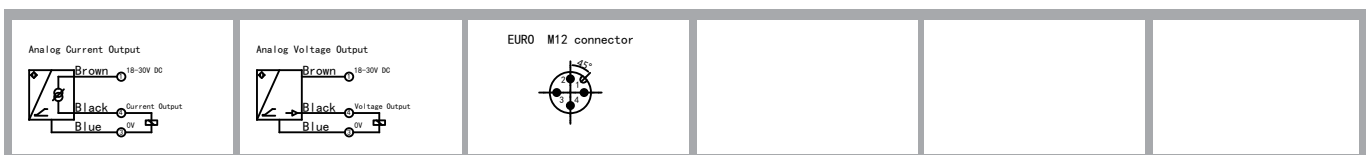
Deviation curve



Technical data

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

Wiring



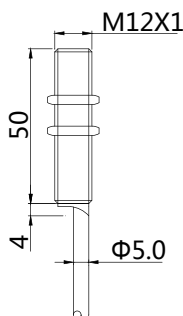


Features:

- M12*1 mm , Brass,nickel-plated housing;
- 4mm , flush mountable;
- DC 3-wire , switching output;
- Withstand low-temperatures(-40...85°C);
- Cable



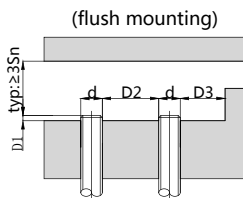
Dimensioned drawing



Model No.

Sensing range	Sn:4 mm
NPN N. O	BLB-M1204N-C11U2
NPN N. C	BLB-M1204N-C21U2
PNP N. O	BLB-M1204P-C11U2
PNP N. C	BLB-M1204P-C21U2

Mounting



Sn	D1	D2	D3
M1204	≥1	≥12	≥12

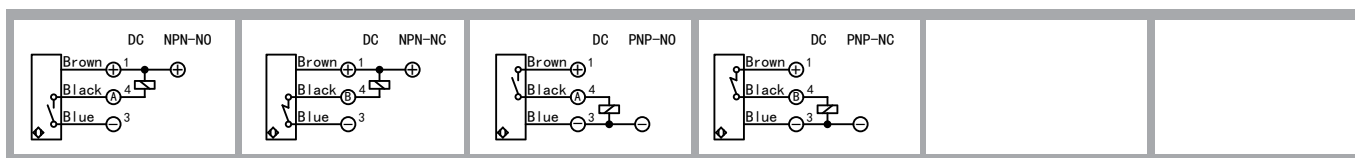
⚠ Tightening torque of the fastening screws: <10Nm!

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

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	3000Hz
	Voltage drop	≤1.5V
	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	-40...85°C
	Ingress protection	IP67
Mechanical data	Housing material	Brass,nickel-plated
	Face material	PBT
Electrical connection	Connectors	PUR cable/2m ; 3*0.35mm²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring



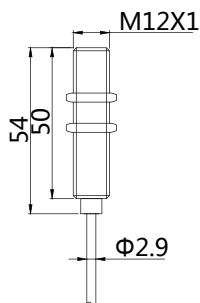


Features:

- M12*1 mm , Metal housing;
- 2mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...120°C);
- Cable



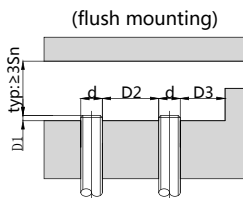
Dimensioned drawing



Model No.

Sensing range	Sn: 2 mm
NPN	BHB-M1202N-V11F2-120
PNP	BHB-M1202P-V11F2-120

Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Wiring



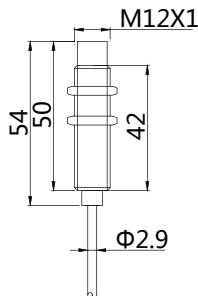


Features:

- M12*1 mm , Metal housing;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...120°C);
- Cable



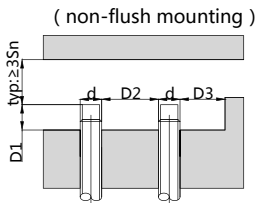
Dimensioned drawing



Model No.

Sensing range	Sn: 4 mm
NPN	BHN-M1204N-V11F2-120
PNP	BHN-M1204P-V11F2-120

Mounting



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Wiring



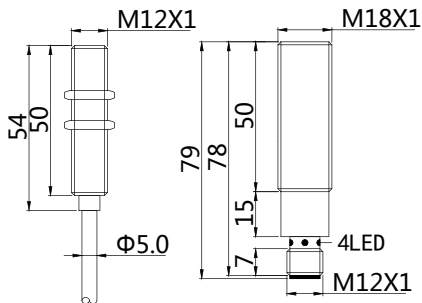


Features:

- M12*1 mm , Metal housing;
- 3mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...150°C);
- Cable & Connector versions



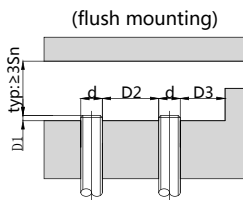
Dimensioned drawing



Model No.

Sensing range	Sn: 3 mm
NPN	BHB-M1203N-V11F3-Z12-150EXT
PNP	BHB-M1203P-V11F3-Z12-150EXT

Mounting



Sn	D1	D2	D3
M1203	≥0	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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

Wiring



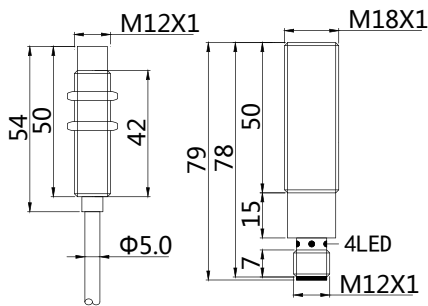


Features:

- M12*1 mm , Metal housing;
- 4mm , non-flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...150°C);
- Cable & Connector versions

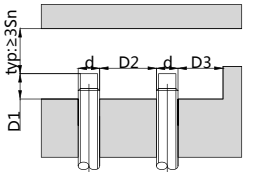


Dimensioned drawing



Mounting

(non-flush mounting)



Sn	D1	D2	D3
M1204	≥9	≥24	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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: 4 mm
NPN	BHN-M1204N-V11F3-Z12-150EXT
PNP	BHN-M1204P-V11F3-Z12-150EXT

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz/150°C
	Voltage drop	≤1.8V
	Leakge current	<0.01mA
	amplifier	External
	No load current	≤25mA
	Hysteresis	3-15%(Sr)
	Repeatability	<3.0%(Sr)
	Temperature drift	<10%(Sr)
	Short circuit protection	Yes
	Overload protection	Yes
	Polarity reversal protection	Yes
Environment	Ambient temperature	-25...150°C
	Ingress protection	IP66
Mechanical data	Housing material	Stainless steel
	Face material	PTFE
Electrical connection	Connectors	PTFE cable/3m ; 3*0.35mm ²
		S12 connector
Accessories	Accessories	NO
		(to be ordered separately)

Wiring



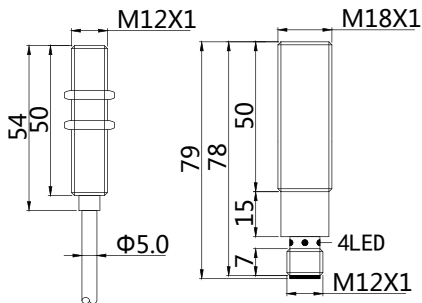


Features:

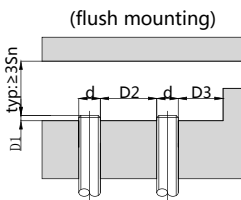
- M12*1 mm , Metal housing;
- 2mm , flush mountable;
- DC 3-wire , switching output;
- Withstand High-temperatures(-25...220°C);
- Cable & Connector versions



Dimensioned drawing



Mounting



Sn	D1	D2	D3
M1202	≥0	≥12	≥12

⚠ Tightening torque of the fastening screws: <10Nm!

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: 2 mm
NPN	BHB-M1202N-V11A3-Z12-220EXT
PNP	BHB-M1202P-V11A3-Z12-220EXT

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz/220°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...220°C
	Ingress protection	IP66
Mechanical data	Housing material	Stainless steel
	Face material	PTFE
Electrical connection	Connectors	KFF46PH cable/3m ; 3*0.26mm ²
		S12 connetor
Accessories	Accessories	NO
		(to be ordered separately)

Wiring

