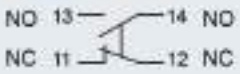
Vertical Limit Switch

Features

- Double circuit type of limit switch
- High mechanical strength, consists of intensive plastic and aluminum cast
- Small size, water-proof and oil-proof construction
- Built-in contact box has double-spring and long mechanical life
- Smooth operation with larger over travel distance
- Conduit design for convenient cabling
- Various actuators for different applications

Contact Form



Ratings

Rated Voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	5	5	1.5	0.7	3	3	2	1
250VAC	5	5	1	0.5	3	3	1.5	0.8
6VDC	5	5	3	3	5	4	3	3
14VDC	5	5	3	3	4	4	3	3
30VDC	5	5	3	3	4	4	3	3
125VDC	0.4	0.4						
250VDC	0.2	0.2						
Inrush Current	N.C: below 24A, N.O: below 12A							

NOTES: 1.Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec max.(DC).
2.Lamp load has an inrush current of 10 times the steady-state current,while motor load has an inrush current of 6 times the steady-state current.
3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

Specifications

Operation speed	5mm-0.5m/s
Operating frequency	Electical: 30 operations/min
Contact resistance	25mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1,000m/Sec^2 (about 100G'S) Malfunction: 300m/Sec^2 (about 30G'S)
Ambient temperature	Using: -20~+70°C (With no icing)
Humidity	<95% RH
Electrical life	500,000 operations above
Degree of protection	IP65

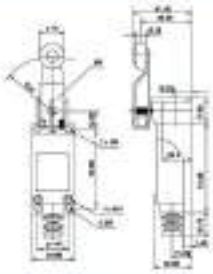
Operating Characteristics

Model	TZ-8	TZ-8104 TZ-8105	TZ-8108 TZ-8109	TZ-8107	TZ-8111	TZ-8112/8122	TZ-8166/8167/8168/8169
Operating force	OF(Max.)	750g	750g	750g	900g	900g	150g
Release force	RF(Min.)	100g	100g	100g	150g	150g	-
Pre-travel	PT(Max.)	20°	20°	20°	1.5mm	1.5mm	30mm
Over travel	OT(Min.)	50°	50°	50°	4mm	4mm	-
Movement differential	MD(Max.)	12°	12°	12°	1mm	1mm	-
Operating position	OP(mm.)	-	-	-	26 ± 0.8mm	37 ± 0.8mm	-

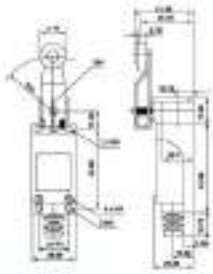
Vertical Limit Switch

Appearance and Dimension

TZ-8104



TZ-8105



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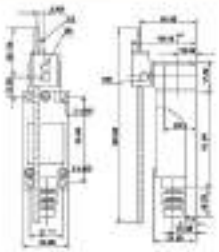

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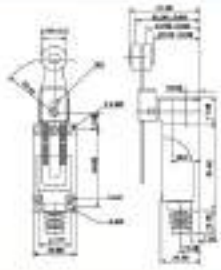

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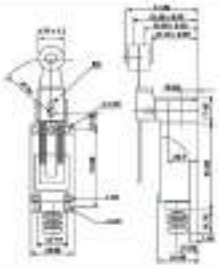

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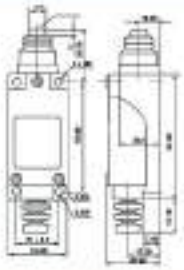
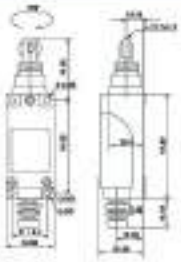


TZ-8112



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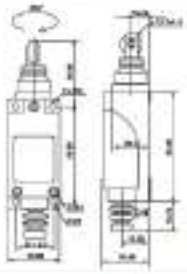

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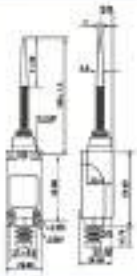

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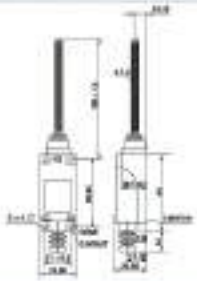

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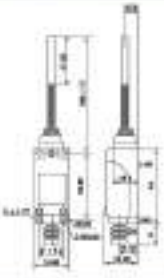

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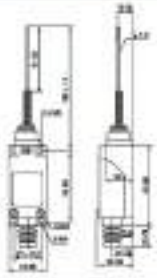


Vertical Limit Switch

Features

- Double-circuit type of limit switch
- High mechanical strength, mainly consists of aluminum cast
- Water-proof and oil-proof construction
- Various actuators for different applications
- Built-in contact box with double spring mechanism, longer mechanical life

Contact Form

Ratings

Rated Voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	10		3	1.5	10		5	2.0
250VAC	5		2	1	5		3	1.0
480VAC	3		1.5	0.8	3		1.5	0.8
600VAC	1		1	0.5	1.5		1	0.5
6VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	3	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

NOTES: 1.Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec. max.(DC).
2.Lamp load has an inrush current of 10 times the steady-state current,while motor load has an inrush current of 6 times the steady-state current.
3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

Specifications

Operation speed	1mm~1m/s
Operating frequency	Electrical: 30 operations/min
Contact resistance	25mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)
Dielectric strength	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec^2 (about 100G's) Malfunction: 300m/Sec^2 (about 30G's)
Ambient temperature	Using: -20~+80℃ (With no icing)
Humidity	<95% RH
Electrical life	500,000 operations above
Protection level	IP65

NOTES: The default size of conduit connector is M20x1.5, outting cable connector. Conduit connector size is PG13.5, with product model number plus (-P), example:CWLCA2-2-P

Operating Characteristics

Model	CWL	CWLCA2-2	CWLD2	CWLNJ	CWLNJ-S2	CWLCA12-2-Q CWLCA12-2-QD	CWLCL	CWLCA32-41 CWLCA32-42	CWLD	CWLNJ-2	CWLNJ-30	CWLD1	CWLD3
Operating Force	OF(Max.)	1360g	2720g	100g	28g	1360g	142g	1200g	2720g	120g	80g	2720g	2720g
Release Force	RF(Min.)	227g	910g	-	-	227g	28g	-	910g	-	-	910g	910g
Pre-Travel	PT(Max.)	20°	1.7mm	28mm	28mm	20°	20°	55°	1.7mm	28mm	28mm	1.7mm	1.7mm
Over Travel	OT(Min.)	30°	5.6mm	-	-	30°	30°	35°	6.4mm	-	-	5.6mm	5.6mm
Movement Differential	MD(Max.)	12°	1mm	-	-	12°	12°	-	1mm	-	-	1mm	1mm
Total Force	TF(Max.)	2720g	-	-	-	2720g	200g	-	-	-	-	2720g	2720g
Total Travel	TT(Min.)	50°	6.5±0.8mm	-	-	50°	50°	OP:90±10°	OP:34±2.8mm	-	-	6.5±0.8mm	9±0.8mm

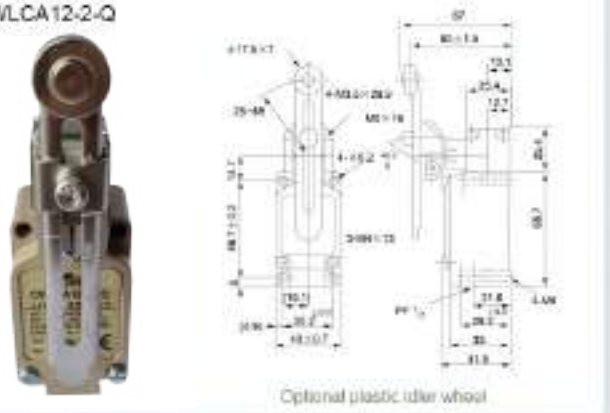
Vertical Limit Switch

Appearance and Dimension

CWLCA2-2

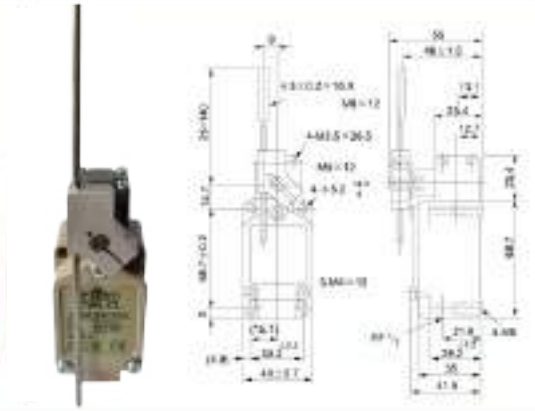
Optional plastic idler wheel

CWLCA12-2-Q

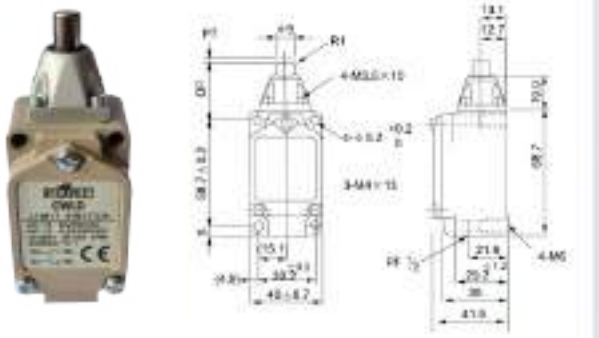


Optional plastic idler wheel

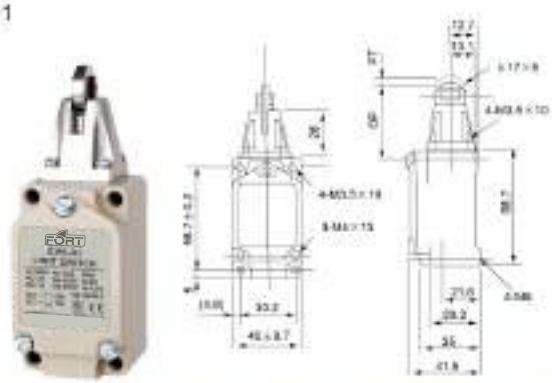
CWLCL



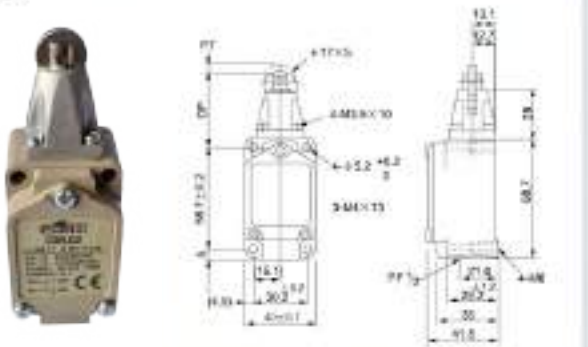
CWLD



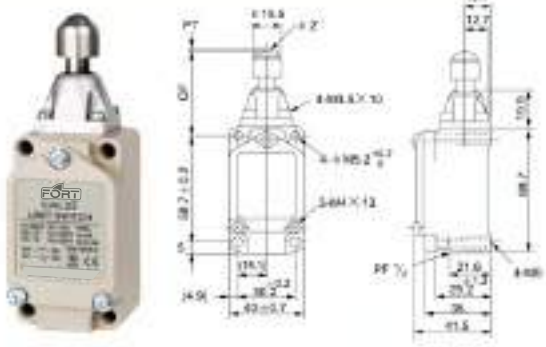
CWLD1



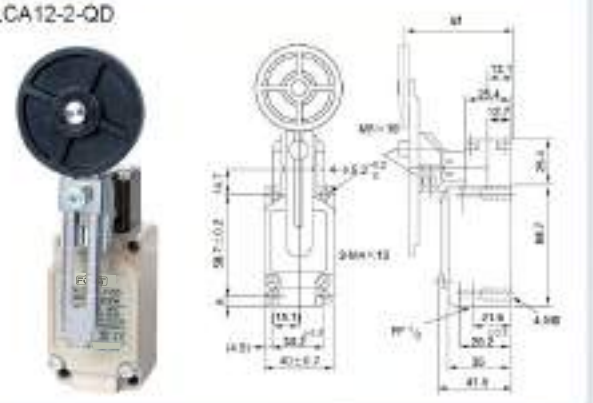
CWLD2



CWLD3



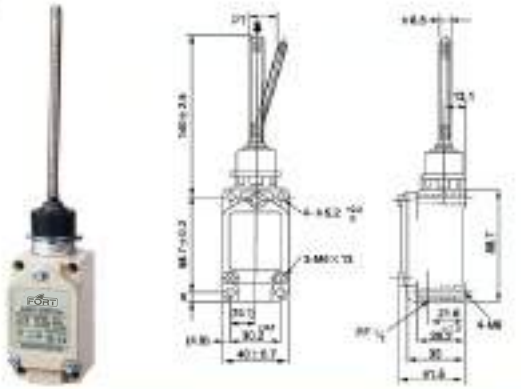
CWLCA12-2-QD



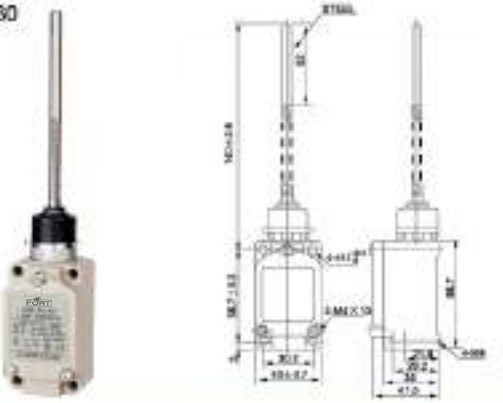
Vertical Limit Switch

Appearance and Dimension

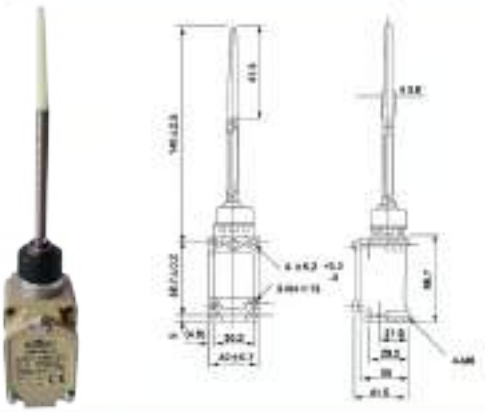
CWLNJ



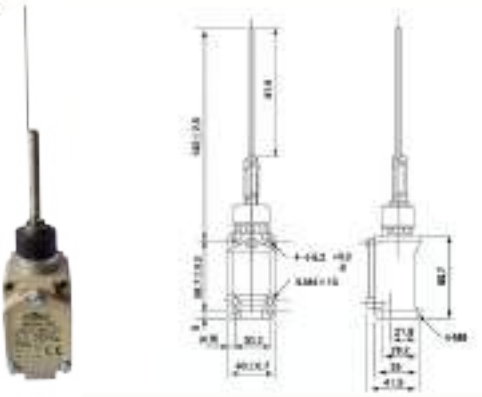
CWLNJ-30



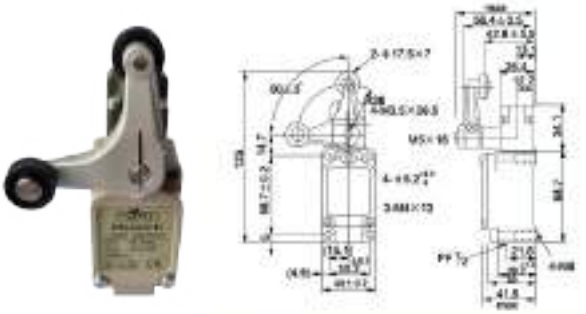
CWLNJ-2



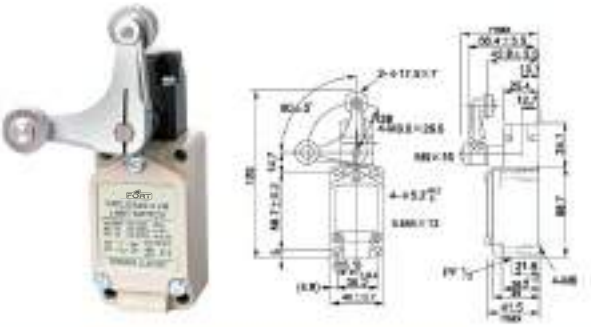
CWLNJ-S2



CWLCA32-41



CWLCA32-41/M



CWLCA32-42

CWLCA32-42/M

Micro Switch

Features

- Various actuators and some with adjustable operating position (such as CM1701)
- High accuracy wide range of operation speed

Contact Form

Ratings

Rated Voltage	Noninductive Load (A)				Inductive Load (A)				Inrush Current	
	Resistance Load		Lamp Load		Inductive Load		Motor Load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	15		3	1.5	15		5	2.5		
250VAC	15		2.5	1.25	15		3	1.5		
500VAC	3		1.5	0.75	2.5		1.5	0.75		
									30 max.	15 max.
6VDC	15		3	1.5	15		5	2.5		
14VDC	15		3	1.5	10		5	2.5		
30VDC	6(2)		3	1.5	5		5	2.5		
125VDC	0.4		0.4	0.4	0.05		0.05	0.05		
250VDC	0.2		0.2	0.2	0.03		0.03	0.03		

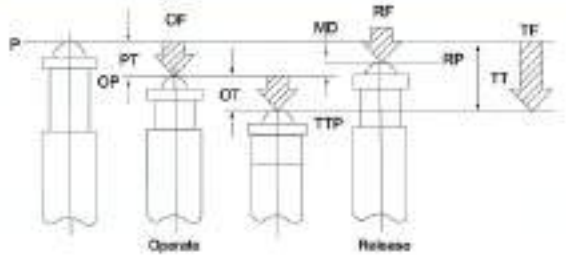
Specifications

Operation speed	0.05mm-1m/s
Operating frequency	Electrical: 20 operations/min
Contact resistance	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (at 500VDC)
Dielectric Strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 HZ for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 HZ for 1 minute between each terminal and ground
Vibration	(*10 to 20Hz): 1.5 Vibration amplitude action duration: 10 to 55Hz
Shock	Mechanical durable: 1, 000m/Sec^2 (about 100G'S) Malfunction: 300m/Sec^2 (about 30G'S)
Ambient temperature	Using: -20~+80℃ (With no icing)
Humidity	General purpose type: 85% RH max., Sealed type: 95% RH max.
Electrical life	500,000 operations above
Weight	About 22 to 50g

Micro Switch

Operating Characteristics

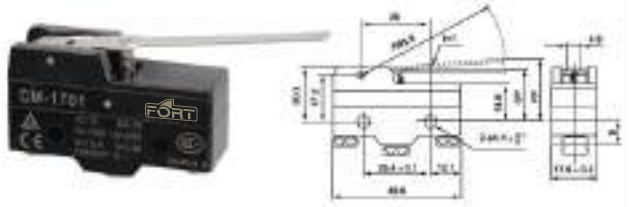
Models	CM1300	CM1301	CM1303 CM1303M	CM1305	CM1306	CM1307	CM1308 CM1308X	CM1309	CM1701 CM1706	CM1702	CM-1703 CM-1703M	CM-1704 CM-1704M	CM1705	CM-1743 CM-1743M
OF(Max.)	350g	300g	300g	350g	350g	350g	350g	350g	70g	160g	100g	150g	10g	160g
RF(Min.)	114g	50g	50g	114g	114g	114g	114g	114g	14g	28g	22g	42g	3g	42g
PT(Max.)	0.4mm	4mm	4mm	0.4mm	0.4mm	0.4mm	0.4mm	0.4mm	10mm	5mm	7.1mm	2.7mm	20mm	2.7mm
OT (Min.)	0.13mm	1.6mm	1.6mm	1.6mm	1.6mm	5.5mm	3.56mm	3.56mm	5.6mm	2mm	4mm	2.4mm	5.6mm	2.4mm
MD (Max.)	0.05mm	1.3mm	1.3mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm	1.27mm	1mm	1.02mm	0.5mm	3mm	0.5mm
FP(Max.)		20.6mm	31.8mm						28.2mm	24.8mm	36.5mm	32.5mm		43.6mm
OP(mm)	15.8±0.4	17.4±0.8	28.6±0.8	28.2±0.5	21.5±0.5	21.8 0.8	33.4±1.2	33.4±1.2	19±0.8	19±0.4	30.2±0.8	30.2±0.4	19±0.8	43.1±0.8



OF: Operating Force
RF: Releasing Force
TF: Total Force
FP: Free Position
OP: Operating Position
RP: Releasing Position
TTP: Total Tavel Position
PT: Pre Travel
OT: Over Travel
MD: Movement Differential
TT: Total Tavel

Appearance and Dimension

CM-1701



CM-1702

CM-1703

CM-1703M

CM-1704

CM-1704M

Micro Switch

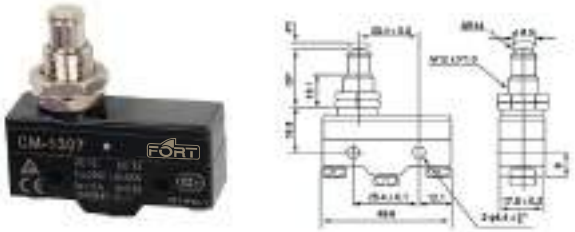
Appearance and Dimension

CM-1705

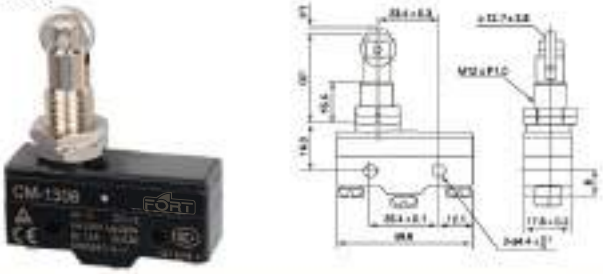
CM-1706

CM-1306

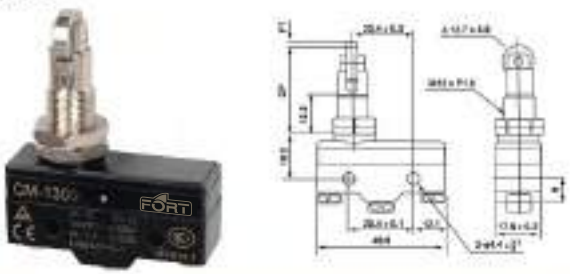
CM-1307



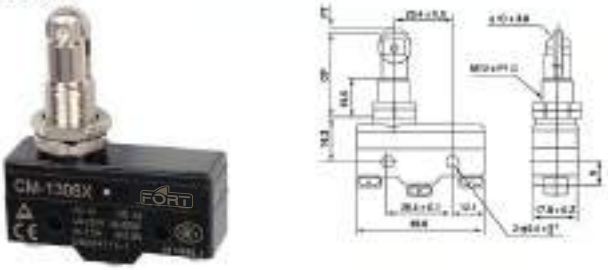
CM-1308



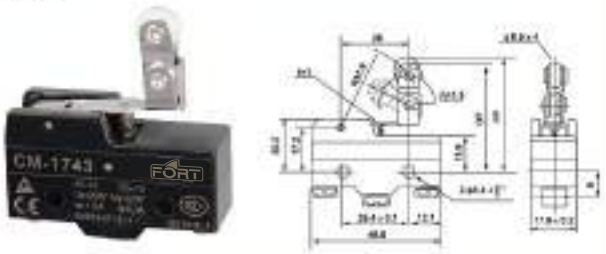
CM-1309



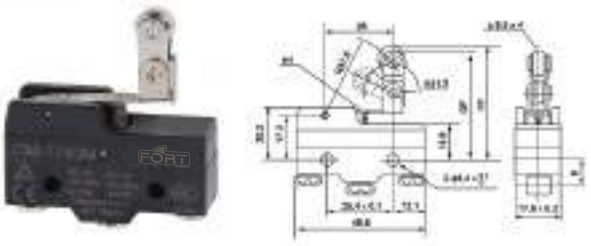
CM-1308X



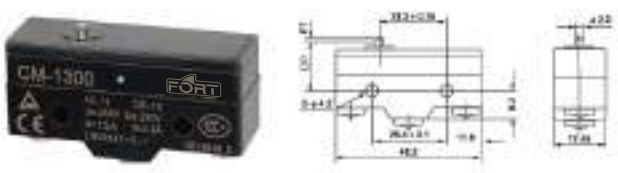
CM-1743



CM-1743M



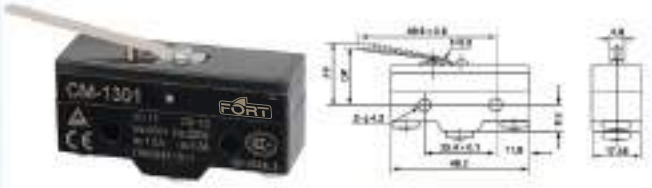
CM-1300



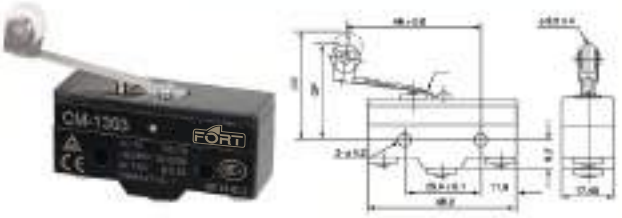
Micro Switch

Appearance and Dimension

CM-1301

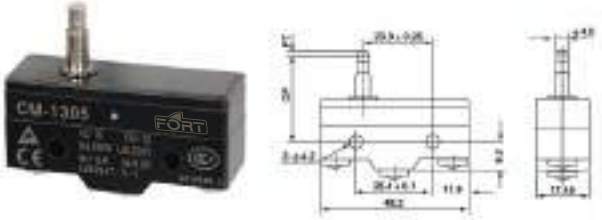


CM-1303



CM-1303M

CM-1305



Terminal Cover

CAP-Y

CAP-C

CAP-B

Vertical Limit Switch

Features

- Various actuators and some with adjustable operating position (such as CZ-7121)
- Shell covered with intensive plastic for water-proof and oil-proof. The mechanical strength is better than CM series of horizontal limit switch

Contact Form

Ratings

Rated Voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	10		3	1.5	10		5	2.5
250VAC	10		2.5	1.25	10		3	1.5
480VAC	3		1.5	0.75	2.5		1.5	0.75
8VDC	10		3	1.5	6		6	5
14VDC	10		3	1.5	6		6	5
30VDC	8		3	1.5	6		5	2.5
125VDC	0.6		0.4	0.4	0.05		0.05	0.05
250VDC	0.25		0.2	0.2	0.03		0.03	0.03

NOTES: 1.Inductive load has a power factor of 0.4 min (AC) and a time constant of 7 msec max (DC).
2.Lamp load has an inrush current of 10 times the steady-state current while motor load has an inrush current of 6 times the steady-state current.
3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

Specifications

Operation speed	0.05mm-0.5m/s
Operating frequency	Electrical: 20 operations/min
Contact resistance	25m Ω max. (initial value)
Insulation resistance	100m Ω above(at 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	Malfunction Duration: 10-55Hz, 1.5mm double amplitude
Shock	Mechanical durable: 1,000m/Sec^2(about 100g's) Malfunction: 300m/Sec^2(about 30g's)
Ambient temperature	Using: -20~+70°C (With no icing)
Humidity	< 95% RH
Electrical life	500,000 operations above
Weight	About 60g

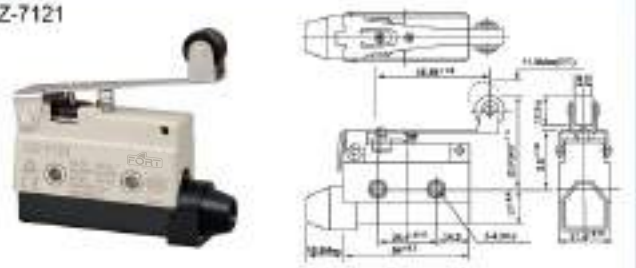
Operating Characteristics

Model	CZ-7	CZ-7100	CZ-7110	CZ-7310	CZ-7311	CZ-7312	CZ-7120	CZ-7140	CZ-7121	CZ-7141	CZ-7124	CZ-7144	CZ-7166
Operating force	OF(Max.)	600g	600g	600g	600g	600g	150g	220g	180g	240g	200g	280g	120g
Release force	RF(Min.)	100g	100g	100g	100g	100g	40g	60g	50g	80g	60g	100g	
Pre-travel	PT(Max.)	2.0mm	2.0mm	2.0mm	2.0mm	2.0mm	13.5mm	8.5mm	11.0mm	6.5mm	11mm	6.5mm	250mm
Over travel	OT(Min.)	0.8mm	5.0mm	6.0mm	6.0mm	6.0mm	4.0mm	2.5mm	3.0mm	2.0mm	3.0mm	2.0mm	11mm
Movement differential	MD(Max.)	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	3.2mm	2.0mm	2.4mm	1.5mm	2.4mm	1.5mm	
Operating position	OP(mm)	39.5 ± 0.8mm	44 ± 1.2mm	21.8 ± 1.2mm	33.3 ± 1.2mm	33.3 ± 1.2mm	25 ± 1mm	25 ± 1mm	40 ± 1mm	40 ± 1mm	58 ± 1.2mm	50 ± 1.2mm	
Free Position	FP						35mm	32mm		46mm		58mm	

Vertical Limit Switch

Appearance and Dimension

CZ-7121

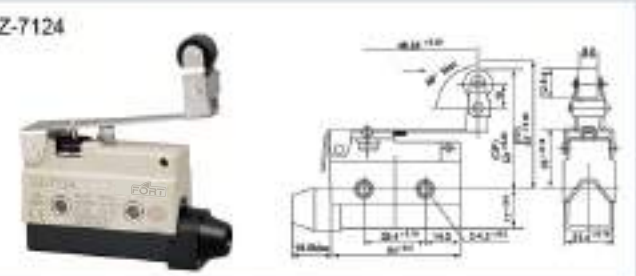


CZ-7141

CZ-7120

CZ-7140

CZ-7124

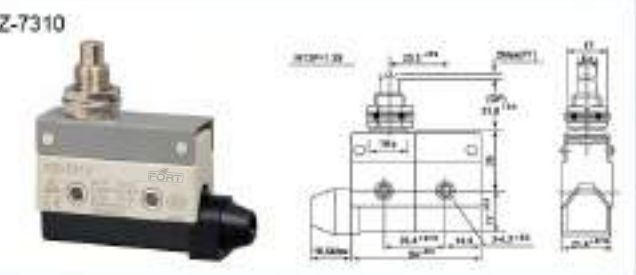


CZ-7144

CZ-7100

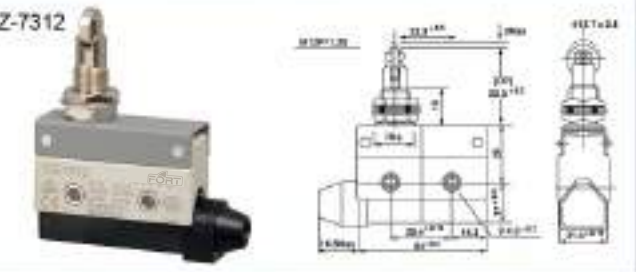
CZ-7110

CZ-7310

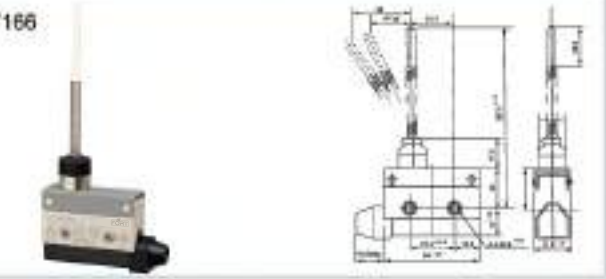


CZ-7311

CZ-7312



CZ-7166



Miniature Snap Action Switch

Ratings

Item / Spec.	Rated Voltage	NonInductive Load (A)				Inductive Load (A)				Inrush Current	
		Resistive Load		Lamp Load		Inductive Load		Motor Load			
		NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
10A	250VAC	10		1.5		6		2		24 max.	
	8VDC	10		3		6		3			
	30VDC	6		3		6		3			
	125VDC	0.3		0.1		0.6		0.1			
	250VDC	0.3		0.05		0.3		0.05			

Specifications

Item / Type		CMV 10 type
Operation speed		0.05mm~1m/s(Button type)
Operating frequency		Electrical: 20 operations/min
Insulation resistance		100mΩ above(at 500VDC)
Contact resistance		15mΩ max. (initial value)
Withstand voltage	Non-continuous terminals	1000VAC, 50/60 Hz for 1 minute
	current-carrying and non-current-carrying metal parts, Between terminal and earthing	1500VAC, 50/60 Hz for 1 minute
Vibration	Misoperation	10 to 55Hz,1.5mm para swing
Shock	Durable	Maximum 1000 m/S^2 (100G)
	Misoperation	Maximum 200 m/S^2 (100G)
Life	Electrical	More than 500000 times
Temperature		Using: -20~+70℃ (With no icing)
Humidity		(+5~+35℃)Below 85% RH

Model Number Structure

CMV ① 10 ② 0 ③ D

Item	Code	Description
① Rated Current	10	10A
② Head and driving rod	0	Button type
	1	Long handle type
	2	Short shank type
	3	Long pulley type
	4	Short pulley type
	5	Longer handle type
	6	Crank type
③ Terminal specifications	C	#250 terminal
	D	#187 terminal

Operating Characteristics

Model	CMV100D	CMV101D	CMV102D	CMV103D	CMV104D	CMV105D	CMV106D
OF(Max.)	2.4N	1.23N	2.4N	1.23N	2.7N	0.69N	1.2N
RF(Min.)	0.49N	0.14N	0.49N	0.14N	0.49N	0.05N	0.14N
PT(Max.)	1.2mm	4.0mm	1.6mm	4.0mm	1.5mm	9.0mm	4.0mm
OT(Min.)	1.0mm	1.6mm	0.8mm	1.6mm	0.8mm	2.0mm	1.5mm
MD(Max.)	0.4mm	1.0mm	0.6mm	1.5mm	0.6mm	2.8mm	1.5mm
OP(mm)	14.7±0.4mm	15.2±1.2mm	15.2±0.5mm	28.7±1.2mm	28.7±1.6mm	15.2±3mm	18.7±1.2mm

Appearance and Dimension

CMV100D

CMV100C

CMV101D

CMV101C

Miniature Snap Action Switch

Appearance and Dimension

CMV102D

CMV102C

CMV103D

Optional Metal idler wheel

CMV103C

Optional Metal idler wheel

CMV104D

Optional Metal idler wheel

CMV104C

Optional Metal idler wheel

CMV105D

CMV105C

CMV106D

CMV106C

CMVP10-D

CMVP10-C

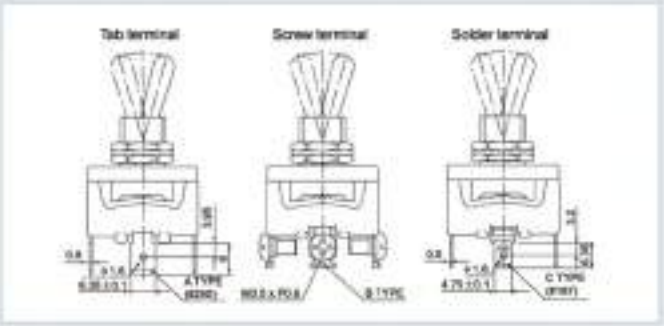
Toggle Switch

Features

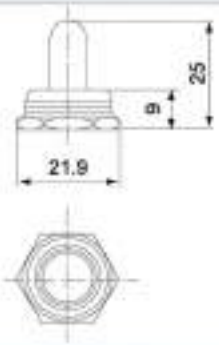
- 10A type and 15A type for selection
- Fixed type and auto-return type (both single-throw and double-throw) for selection
- Screw terminal, solder terminal and tab terminal for selection
- Water-proof cap for water-proof and oil-proof
- Mounting hole: ϕ 12mm

Specifications

Contact resistance	15MΩ max. (initial)
Insulation resistance	100MΩ above under 500VDC
Dielectric strength	2000VAC, 50/60Hz For 1minute
Vibration	10-55Hz, 1.5mm double amplitude
Ambien temperature	Using: -20~+70℃ (With no icing)
Humidity	85% RH max.
Electrical life	500,000 operations above



COW Rainproof cap (Tow)



Model Number Structure

C5 | 11 | B

① ② ③

Items	Code	Description
① Type	CO	10A 250VAC Self-locking
	COR	10A 250VAC Spring return
	C5	15A 250VAC Self-locking
	C5R	15A 250VAC Spring return
② Contact	11	Single pole single throw ON-OFF
	12	Single pole double throw ON-ON
	13	Single pole double throw (central OFF)ON-OFF-ON
	131	Single pole double throw (central OFF single return)ON-OFF-ON
	21	Double pole single throw ON-OFF
	22	Double pole double throw ON-ON
	23	Double pole double throw (central OFF)ON-OFF-ON
	231	Double pole double throw (central OFF single return)ON-OFF-ON
③ Terminal	A	Tab terminal(#250)
	B	Screw terminal
	C	Solder terminal(#187)

Ratings

Load	Type	AC Rating	DC Rating
Resistance Load	CO	10A 250V 15A 125V	0.4A 250V 0.8A 125V
	C5	15A 250V 20A 125V	0.5A 250V 0.9A 125V
Inductive Load	CO	10A 250V 15A 250V	0.2A 250V 0.4A 125V
	C5	15A 250V 20A 125V	0.3A 250V 0.5A 125V 15A
Lamp Load	CO	300W 100V 500W 200V	30V
	C5	400W 125V 800W 250V	-
Motor Load	CO	200W 125V 300W 250V	7A 30V
	C5	400W 125V(single phase)	
	CO	550W 250V(three phase)	-
	C5	750W 250V(three phase)	

Foot Switch

Features

- Plastic shell and metal shell are for selection

Contact Form

Specifications

Designation	Model	Rating	Type of switch enclosed & contact arrangement	Cable type / length	Contact	Action force	Material of Rind
Standard type Momentary Action	CFS-101	10A 250VAC	CMV-100D	0.75mm²,3C/0.5 meter,1 meter~3 meter	1A1B	1.2kg	Plastic
	CFS-102	15A 250VAC	CM-1704	0.75mm²,3C/1 meter,1.5 meter~2 meter	1A1B	1.1kg	
	CFS-2	10A 250VAC	CMV-100D	0.5mm²,3C/1 meter~3 meter	1A1B	1.1kg	Aluminum Cast
	CFS-3	10A 250VAC	CMV-100D	0.75mm²,3C/0.5 meter,1 meter~3 meter	1A1B	1.2kg	
	CFS-3S	15A 250VAC	CM-1704	0.75mm²,3C/1 meter,1 meter~3 meter	1A1B	1.1kg	
Alternate action	CFS-105	6A 250VAC	CMVS-D	0.75mm²,3C/1 meter,1 meter~2 meter	1A1B	2kg	Plastic
	CFS-305	6A 250VAC	CMVS-D	Accessory: Cable gland (No cable)		3.1kg	Aluminum Cast
	CFS-405	6A 250VAC	CMVS-D			3.1kg	
	CFS-505	6A 250VAC	CMVS-D			3.1kg	
Mini foot switch Front end push	CFS-201	10A 250VAC	CMV-100D	0.5mm²,3C/1 meter~3 meter	1A1B	0.7kg	Plastic
	CFS-01	10A 250VAC	CMV-100D	0.5mm²,3C/1 meter~3 meter	1A1B	0.7kg	
	CFS-1	10A 250VAC	CMV-100D	0.5mm²,3C/1 meter~3 meter	1A1B	0.9kg	Iron
Protective guard foot switch	CFS-302	15A 250VAC	CM-1704	Accessory: Cable gland (No cable)	1A1B	3.2kg	Aluminum Cast
	CFS-304	15A 250VAC	CM-1704 + 2		2A2B	3.2kg	
	CFS-502	15A250VAC	CM-1704		1A1B	3.2kg	
	CFS-504	15A250VAC	CM-1704 + 2		2A2B	3.2kg	
	CFS-602	15A250VAC	Button spring type		2*1A1B	2.8kg	
	CFS-702	15A250VAC	CM-1704		2*1A1B	3.2kg	
Large type	CFS-402	15A250VAC	CM-1704		1A1B	3.2kg	
	CFS-404	15A 250VAC	CM-1704 + 2		2A2B	3.2kg	
	CFS-802	15A 250VAC	CM-1704		2*1A1B	3.2kg	

NOTE: The default size of conduit connector is M20x1.5, outfitting cable connector. Conduit connector size is PG13.5, with product model number plus (-P), example:CFS-302-P.

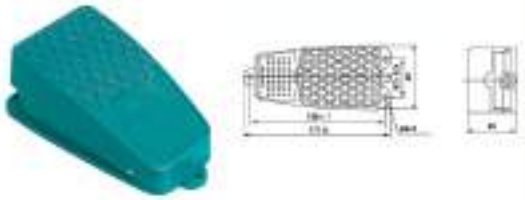
Foot Switch

Appearance and Dimension

CFS-201

CFS-01

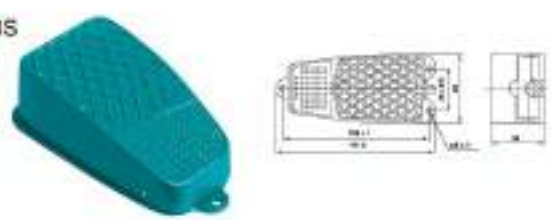
CFS-101
CFS-102
CFS-105



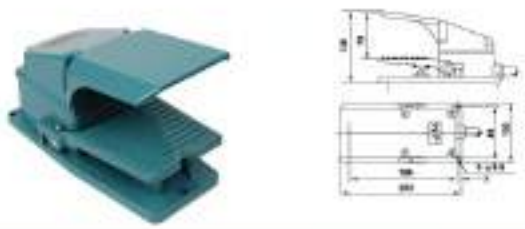
CFS-1

CFS-2

CFS-3
CFS- 3S

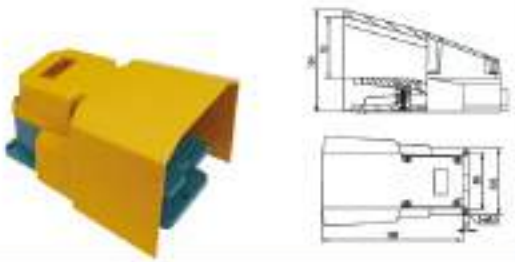


CFS-302
CFS-304
CFS-305

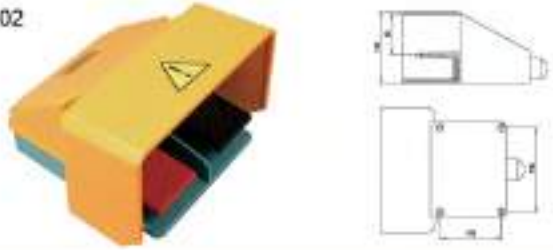


CFS-402
CFS-404
CFS-405

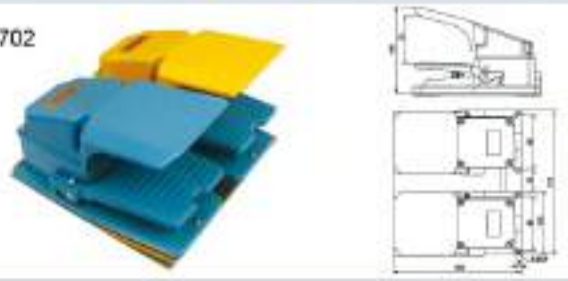
CFS-502
CFS-504
CFS-505



CFS-602



CFS-702



CFS-802

Power Pushbutton Switch

Features

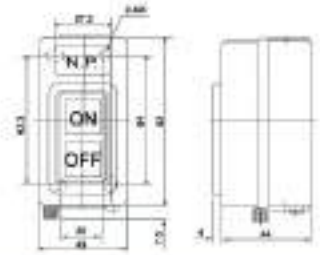
- Plastic shell and metal shell are for selection

Specifications

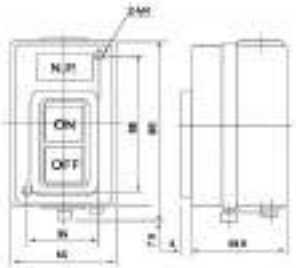
Model	Spec.	Mounting type	Connection terminal	Material
CBSN-310	3Φ 10A 1.5KW	Surface mounting	M3.5	Iron
CBSN-315	3Φ 15A 2.2KW		M4	
CBSN-330	3Φ 30A 3.7KW		M6	
CBSP-315	3Φ 15A 2.2KW	Surface mounting	M4	Plastic
CBSP-330	3Φ 30A 3.7KW			
CBSY-315	3Φ 15A 2.2KW	Flush mounting	M4	Iron
CBSY-330	3Φ 30A 3.7KW			
CBSS-315	3Φ 15A 2.2KW	Flush mounting	M3.5	Iron
CBSS-330	3Φ 30A 3.7KW		M4	
CPB-2	3A 250VAC	Surface mounting	M4	Plastic
CPB-3	3A 250VAC			

Appearance and Dimension

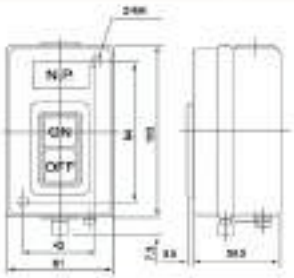
CBSN-310



CBSN-315



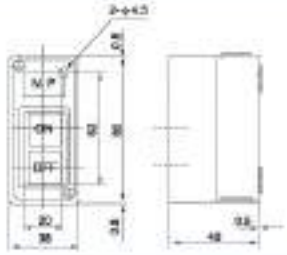
CBSN-330



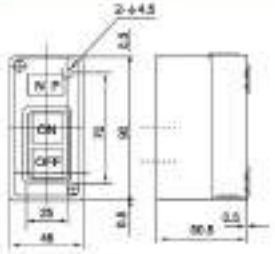
Power Pushbutton Switch

Appearance and Dimension

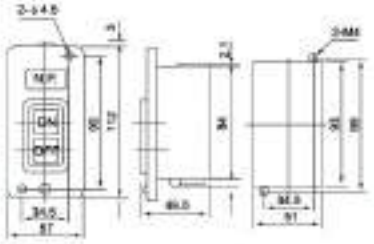
CBSP-315



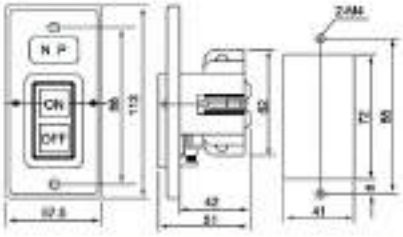
CBSP-330



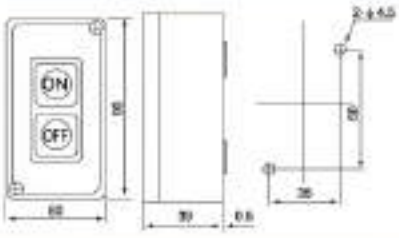
CBSY-315
CBSY-330



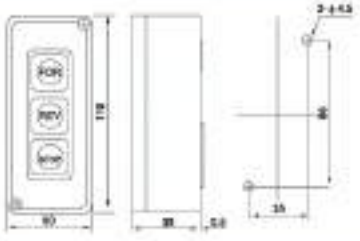
CBSS-315
CBSS-330



CPB-2



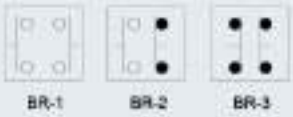
CPB-3



Monolever Switch

Features

- Smoothly and swiftly handle the lever in four directions upward, rightward, downward, and leftward
- Three alternatives of movement are attainable in each direction: Go-on, auto-return, and blockade-enforcing
- Operate in four, three, or two directions with the switch
- Rubber bushing is water-proof, oil-resistant, and dustpreventive



Model Number Structure

CMR - 30 2 - 2 2 2 2 10 10 10 10

① ② ③ ④ ⑤

Items	Code	Description
① Type	CMR	Round type
	CMS	Square type
	CMRS	Round type
	CMRN	Seal Round
② Mounting Hole	30	Φ30m/m only
③ No.of contact Blocks fitted	1~4	1~4
④ Actuating keys	1	Go-on
	2	Auto-return
	0	Blockade-enforcing
⑤ Type of contact Blocks fitted	00	None
	10	1a(1NO)
	20	2a(2NO)
	01	1b(1NC)
	02	2b(2NC)
	11	1a1b(1NO-1NC)

Note: When you place order, please kindly designate clockwise the movement way and type of contact fitted.

Monolever Switch

Ratings

AC	Rated voltage		110V	220V	440V
	Rated current		10A	6A	3A
	Breaking current capacity		50A	30A	10A
DC	Resistance Load	Rated voltage	110V	220V	600V
		Rated Current	2.2A	1.1A	0.4A
		Breaking Current	2.42A	1.21A	0.44A
	Inductive Load	Rated Current	1.2A	0.45A	0.2A
		Breaking Current	1.32A	0.5A	0.22A

Appearance and Dimension

CMR-301

CMRN-301

CMR-302

CMRN-302

CMRS-304

CMRSN-304

Temperature Control

Features

- High-speed sampling
- AI artificial intelligence adjustment algorithm
- Dual PID heating and cooling intelligent adjustment
- AT automatic calculation function
- 16-bit MCU high-speed operation accuracy
- Dual digital display (PV / SV)
- High-speed sampling rate of 100ms and display accuracy of 0.5%
- SSR Drive output / Relay output / Current output optional
- Terminal type wiring method: conducive to wiring and maintenance

Model Number Structure

C TN 4 S - 4 1 1 □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

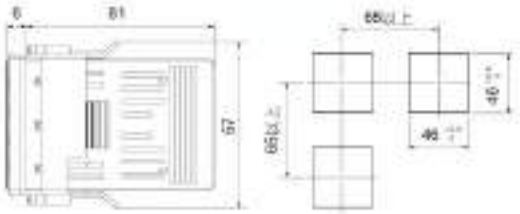
Item	Code	Description
① Conduit / connector size	C	C
② Series	TN	Standard digital dual display PID temperature controller
	TZ	High precision digital dual display PID temperature controller
③ Digit	4	9999 (4 Digit)
④ Dimensions	S	48 × 48
	V	48 × 96
	M	72 × 72
	L	96 × 96
	H	96 × 48
⑤ Voltage supply	2	24VAC 50/60Hz 24-48VDC
	4	Switch power supply (100-240V AC, 50HZ)
⑥ Control output	1	Relay
	2	SSR Output
	3□	31: 0~5V, 32: 1~5V, 33: 0~10V, 34: 0~20ma, 35: 4~20ma Analog output
	4	SCR zero-crossing output
	5	(5A) SCR built-in
	6	SSR+Relay output
	A-Z	A-Z letter combination represents other or custom control output modes
⑦ Alarm output	1	1 Way relay
	2	2 Way relay
	3	1 Solid state
	4	2 Solid state
⑧ Graduation	无	Thermocouple multiple input (Default setting K), E, J, N, W3-25, W5-26
	P	PT100 Thermal resistance input
	C	Cu50 Thermal resistance input

Electrical Specification

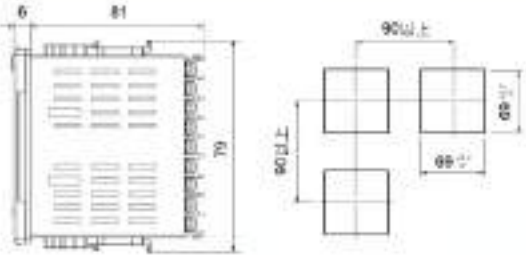
Rated voltage	100-240V AC, 50HZ
Power consumption	≤ 5VA
Rated voltage	Installation type II, Pollution degree 2
Storage Temperature	-25℃ -65℃ (Avoid freezing)
Evolution power	1℃ , 0.1℃ (Adjustable)
Wiring method	Connecting terminal
Measuring accuracy	± 0. 5%FS
Memory Protection	Non-volatile memory
Installation conditions	Installation type II, Pollution degree 2
Relay output	Relay contact AC220V/DC30V 3A
Logic level output	On: DC12V, Off: dc0 Below 5V, Maximum current: 30mA, load resistance ≥ 1K

Appearance and Dimension

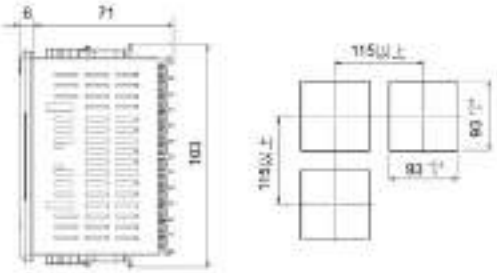
CTN4S
48 × 48mm



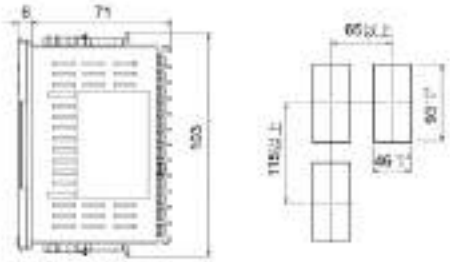
CTN4M
72 × 72mm



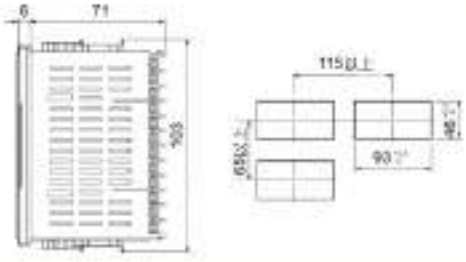
CTN4L
96 × 96mm



CTN4V
48 × 96mm



CTN4H
96 × 48mm



Operation panel function description

First display (PV)
Display measured value
Display various prompts according to the instrument status

Second display(SV)
Display given value
Display various parameter according to the instrument status

Action directive
OUT: Heating indicator, light on when it is operating
ALM1: Deviation high-limit alarm, light on when it is alarming
ALM2: Deviation low-limit alarm, light on when it is alarming

Plus key
Increase the adjustment value
Manual mode access key
Menu parameter switch key

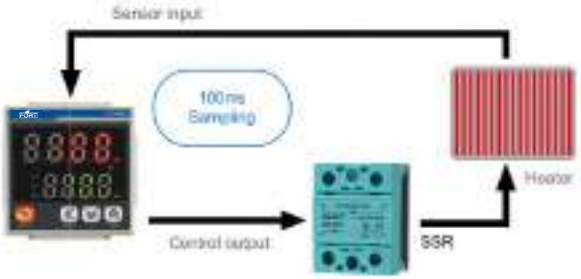
Minus key
Decrease the adjustment value
Auto-tuning state enter key
Menu parameter switch key

INFO key
Status information view enter key

Function key (Mode)
Main menu and submenu access key
Parameter modification and confirmation key

High speed sampling

100ms high-speed sampling rate enables precise temperature control in applications requiring fast response speed.



SSR drive output method

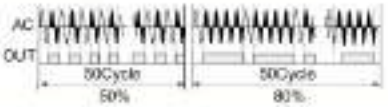
Users can choose SSR and RELAY drive output. On this basis, ON/OFF control and manual output are added to achieve ideal temperature control.

SSR Drive output

Choose the control method

ON/OFF Control

Manual output



Proximitv Sensor

Features

- Orange mark for standard type
- Light green mark for high-end type

- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches
- Exclusively designed IC for improving anti-jamming capability

Orange

Light green

Model Number Structure

C J Y 18 □ – 08 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	c	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	Without	Without =High-end type（Light green head）
	E	E =Standard type（Orange head）
⑥ Detection distance	08	08=8mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

DC 3-wire type

Model					
	High-end type	CJY04-01NA CJY04-01NB CJY04-01PA CJY04-01PB	CJY05-01NA CJY05-01NB CJY05-01PA CJY05-01PB	CJY06-01NA CJY06-01NB CJY06-01PA CJY06-01PB	CJY6.5-1.5NA CJY6.5-1.5NB CJY6.5-1.5PA CJY6.5-1.5PB
	Standard type	/	/	/	/
Sensing distance		1mm	1mm	1mm	1.5mm
Hysteresis		Max. 10% of sensing distance			
Standard sensing target		6×6×1mm (Iron)	7×7×1mm (Iron)	8×8×1mm (Iron)	8×8×1.5mm (Iron)
Setting distance		0~0.8mm	0~0.8mm	0~1.0mm	0~6.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)			
Leakage current		Max.10mA			
Response frequency (※1)		1500Hz	1500Hz	1000Hz	1000Hz
Residual voltage (※2)		Max. 1.0V			
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output		Max. 200mA			
Insulation resistance		Min. 50MΩ (at 500VDC megger)			
Dielectric strength		1500VAC 50/60Hz for 1minute			
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times			
Indicator		Operation indicator(red LED)			
Ambient temperature		-25~+70℃ (No icing)			
Storage temperature		-30~+80℃ (No icing)			
Ambient humidity		35~95%RH (No condensation)			
Protection circuit		Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit			
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT,Standard cable(Grey): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)			
Cable		ϕ2.8, 3P, 2m			
		AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25			
Protection		IP67			

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Specifications

DC 3-wire type

Model									
	High-end type	CJY08-01NA CJY08-01NB CJY08-01PA CJY08-01PB	CJY08-02NA CJY08-02NB CJY08-02PA CJY08-02PB	CJY12-02NA CJY12-02NB CJY12-02NC CJY12-02PA CJY12-02PB CJY12-02PC	CJY12-04NA CJY12-04NB CJY12-04NC CJY12-04PA CJY12-04PB CJY12-04PC	CJY18-05NA CJY18-05NB CJY18-05NC CJY18-05PA CJY18-05PB CJY18-05PC	CJY18-08NA CJY18-08NB CJY18-08NC CJY18-08PA CJY18-08PB CJY18-08PC	CJY30-10NA CJY30-10NB CJY30-10NC CJY30-10PA CJY30-10PB CJY30-10PC	CJY30-15NA CJY30-15NB CJY30-15NC CJY30-15PA CJY30-15PB CJY30-15PC
	Standard type	CJY08E-01NA CJY08E-01NB CJY08E-01PA CJY08E-01PB	CJY08E-02NA CJY08E-02NB CJY08E-02PA CJY08E-02PB	CJY12E-02NA CJY12E-02NB CJY12E-02NC CJY12E-02PA CJY12E-02PB CJY12E-02PC	CJY12E-04NA CJY12E-04NB CJY12E-04NC CJY12E-04PA CJY12E-04PB CJY12E-04PC	CJY18E-05NA CJY18E-05NB CJY18E-05NC CJY18E-05PA CJY18E-05PB CJY18E-05PC	CJY18E-08NA CJY18E-08NB CJY18E-08NC CJY18E-08PA CJY18E-08PB CJY18E-08PC	CJY30E-10NA CJY30E-10NB CJY30E-10NC CJY30E-10PA CJY30E-10PB CJY30E-10PC	CJY30E-15NA CJY30E-15NB CJY30E-15NC CJY30E-15PA CJY30E-15PB CJY30E-15PC
Sensing distance		1mm	2mm	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance							
Standard sensing target		8 × 8 × 1mm (Iron)		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~0.8mm	0~1.4mm	0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)							
Leakage current		Max.10mA							
Response frequency (※1)		1000Hz	1000Hz	1000Hz	500Hz		350Hz	400Hz(高端) 350Hz(标准)	200Hz
Residual voltage		1.0V 以下 Max. 1.0V							
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃							
Control output		Max. 200mA							
Insulation resistance		Min. 50MΩ (at 500VDC megger)							
Dielectric strength		1500VAC 50/60Hz for 1minute							
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times							
Indicator		Operation indicator(red LED)							
Ambient temperature		-25~+70℃ (No icing)							
Storage temperature		-30~+80℃ (No icing)							
Ambient humidity		35~95%RH (No condensation)							
Protection circuit		Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit							
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT,Standard cable(Grey): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)							
Cable	High-end type	ϕ2.8, 3P, 2m		ϕ3.8, 3P,4P 2m			ϕ4.8, 3P,4P 2m		
		(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)			(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)		
	Standard type	ϕ2.8, 3P, 1.5m		ϕ3.8, 3P, 4P 1.5m			ϕ4.8, 3P, 4P 1.5m		
		(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)			(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)		
Protection		IP67							

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Specifications

DC 2-wire type

Model	High-end type	CJY08-01LA CJY08-01LB	CJY08-02LA CJY08-02LB	CJY12-02LA CJY12-02LB	CJY12-04LA CJY12-04LB	CJY18-05LA CJY18-05LB	CJY18-08LA CJY18-08LB	CJY30-10LA CJY30-10LB	CJY30-15LA CJY30-15LB
	Standard type	CJY08E-01LA CJY08E-01LB	CJY08E-02LA CJY08E-02LB	CJY12E-02LA CJY12E-02LB	CJY12E-04LA CJY12E-04LB	CJY18E-05LA CJY18E-05LB	CJY18E-08LA CJY18E-08LB	CJY30E-10LA CJY30E-10LB	CJY30E-15LA CJY30E-15LB
Sensing distance		1mm	2mm	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance							
Standard sensing target		8 × 8 × 1mm (Iron)		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~0.8mm	0~1.4mm	0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)							
Leakage current		Max.0.6mA							
Response frequency (※1)		1000Hz	1000Hz	1000Hz	500Hz		350Hz	350Hz	200Hz
Residual voltage		Max. 3.5V							
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃							
Control output		Max. 200mA							
Insulation resistance		Min. 50MΩ (at 500VDC megger)							
Dielectric strength		1500VAC 50/60Hz for 1minute							
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times							
Indicator		Operation indicator(red LED)							
Ambient temperature		-25~+70℃ (No icing)							
Storage temperature		-30~+80℃ (No icing)							
Ambient humidity		35~95%RH (No condensation)							
Protection circuit		Surge protection circuit							
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)							
Cable	High-end type	ϕ2.8, 2P, 2m		ϕ3.8, 2P, 2m		ϕ4.8, 2P, 2m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)			
	Standard type	ϕ2.8, 2P, 1.5m		ϕ3.8, 2P, 1.5m		ϕ4.8, 2P, 1.5m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)			
Protection		IP67							

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target. 1/2 of the sensing distance for the distance.

Proximity Sensor

Specifications

AC 2-wire type

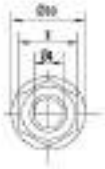
Model	High-end type	/	CJY12-04KA CJY12-04KB	CJY18-05KA CJY18-05KB	CJY18-08KA CJY18-08KB	CJY30-10KA CJY30-10KB	CJY30-15KA CJY30-15KB
	Standard type	CJY12E-02KA CJY12E-02KB	CJY12E-04KA CJY12E-04KB	CJY18E-05KA CJY18E-05KB	CJY18E-08KA CJY18E-08KB	CJY30E-10KA CJY30E-10KB	CJY30E-15KA CJY30E-15KB
Sensing distance		2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance					
Standard sensing target		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		24-250VAC()					
		90-250VAC ()					
Leakage current		Max.10mA					
Response frequency (※1)		20Hz					
Residual voltage		Max. 10V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ(at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-25~+70℃ (No icing)					
Storage temperature		-30~+80℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		Surge protection current					
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)					
Cable	High-end type	ϕ3.8, 2P, 2m		ϕ4.8, 2P, 2m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)			
	Standard type	ϕ3.8, 2P, 1.5m		ϕ4.8, 2P, 1.5m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)			
Protection		IP67					

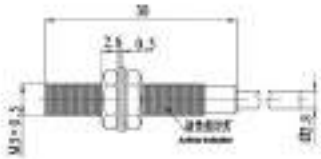
(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Appearance and Dimension

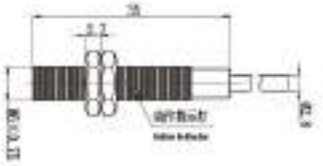
CJY04-01

CJY05-01





CJY06-01



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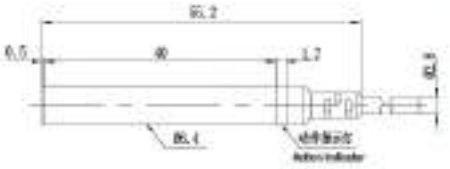
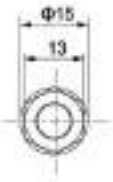
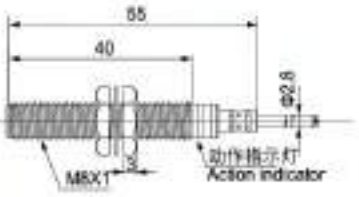
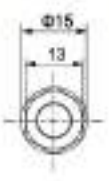


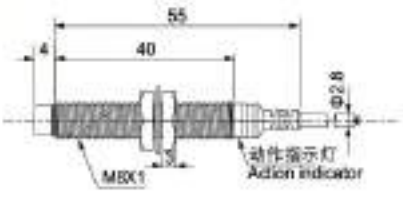
CJY08-01





CJY08-02

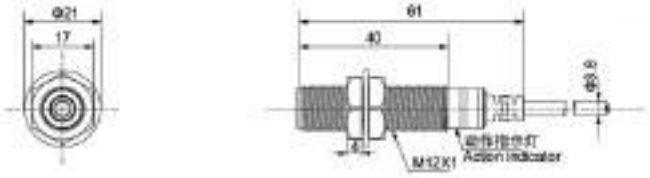




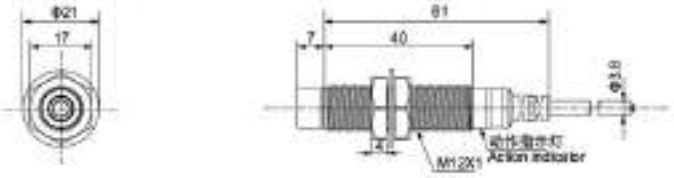
Proximity Sensor

Appearance and Dimension

CJY12-02



CJY12-04



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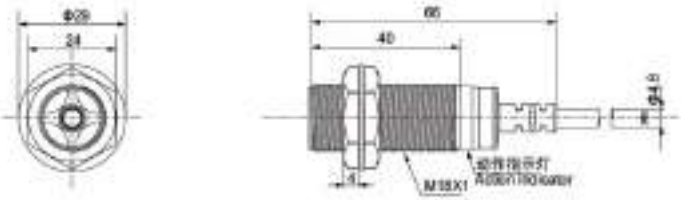

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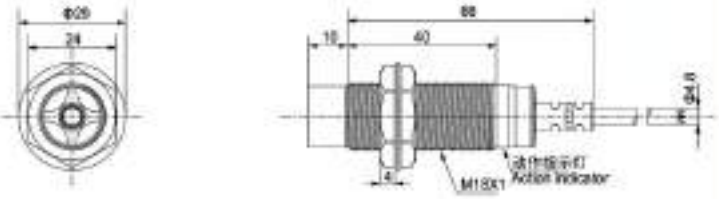

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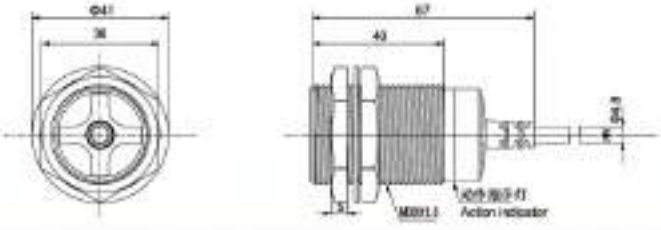

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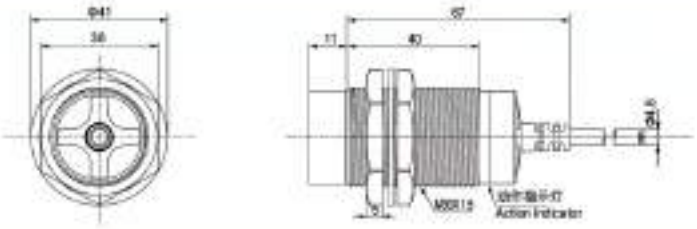
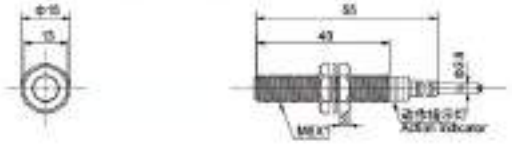


Proximity Sensor

Appearance and Dimension

CJY08E-01



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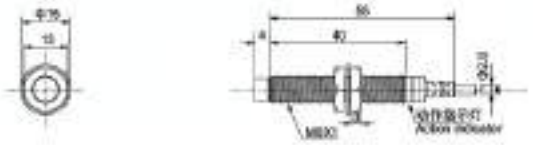

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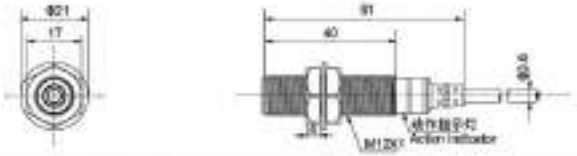

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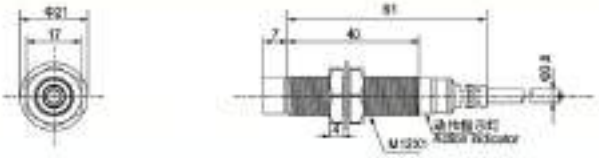

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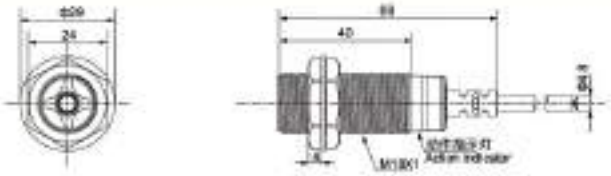

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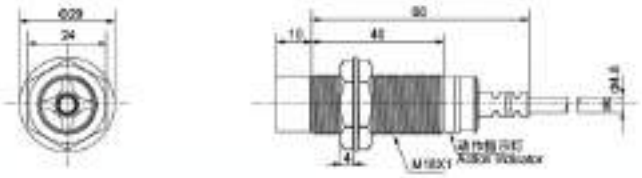

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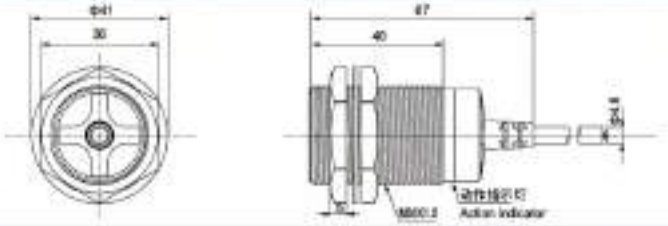

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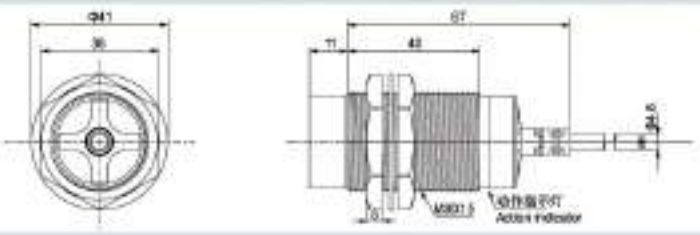
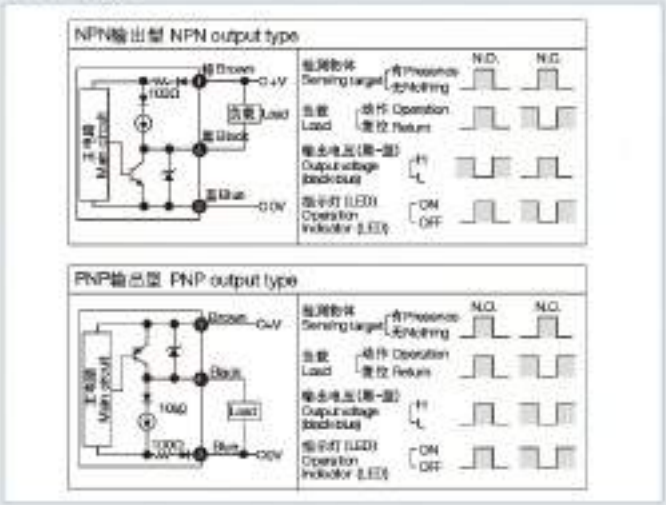


Proximity Sensor

Control Output Diagram

DC 2-wire type

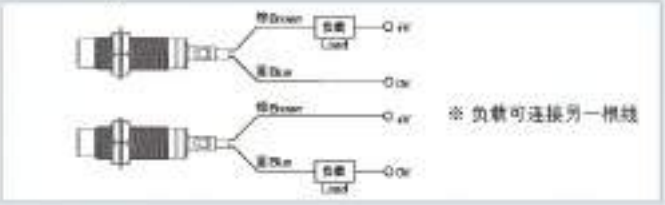
DC 3-wire type



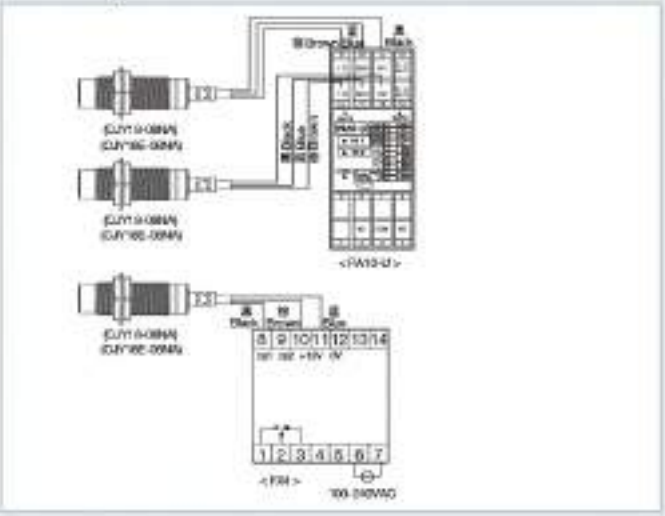
AC 2-wire type

Connections

DC 2-wire type



DC 3-wire type



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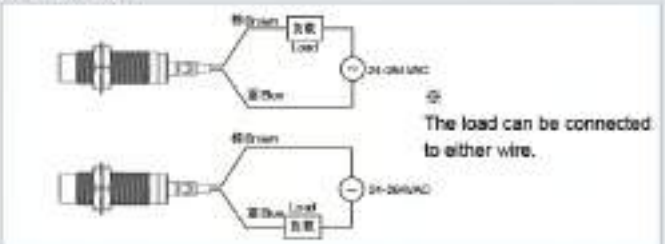


Proper Usage

Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.

Item \ Model	CJY08-01 CJY08E-01	CJY08-02 CJY08E-02	CJY12-02 CJY12E-02	CJY12-04 CJY12E-04	CJY18-05 CJY18E-05	CJY18-08 CJY18E-08	CJY30-10 CJY30E-10	CJY30-15 CJY30E-15
A	9	12	12	24	30	48	60	90
B	16	24	24	36	36	54	60	90
ℓ	0	8	0	11	0	14	0	15
ϕd	8	24	12	36	18	54	30	90
m	4.5	6	6	12	15	24	30	45
n	12	24	18	36	27	54	45	90

Proximity Sensor

Features

- Orange mark for standard type
- Light green mark for high-end type

- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)
- Replaceable for limit switches

Orange

Light green

Model Number Structure

C J Y 18 □ – 08 N A T

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	Without	Without = High-end type（Light green head）
	E	E=Standard type（Orange head）
⑥ Detection distance	08	08=8mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

Specifications

DC 3-wire type

Model							
	High-end type	CJY12-02NAT CJY12-02NBT CJY12-02NCT CJY12-02PAT CJY12-02PBT CJY12-02PCT	CJY12-04NAT CJY12-04NBT CJY12-04NCT CJY12-04PAT CJY12-04PBT CJY12-04PCT	CJY18-05NAT CJY18-05NBT CJY18-05NCT CJY18-05PAT CJY18-05PBT CJY18-05PCT	CJY18-08NAT CJY18-08NBT CJY18-08NCT CJY18-08PAT CJY18-08PBT CJY18-08PCT	CJY30-10NAT CJY30-10NBT CJY30-10NCT CJY30-10PAT CJY30-10PBT CJY30-10PCT	CJY30-15NAT CJY30-15NBT CJY30-15NCT CJY30-15PAT CJY30-15PBT CJY30-15PCT
	Standard type	CJY12E-02NAT CJY12E-02NBT CJY12E-02NCT CJY12E-02PAT CJY12E-02PBT CJY12E-02PCT	CJY12E-04NAT CJY12E-04NBT CJY12E-04NCT CJY12E-04PAT CJY12E-04PBT CJY12E-04PCT	CJY18E-05NAT CJY18E-05NBT CJY18E-05NCT CJY18E-05PAT CJY18E-05PBT CJY18E-05PCT	CJY18E-08NAT CJY18E-08NBT CJY18E-08NCT CJY18E-08PAT CJY18E-08PBT CJY18E-08PCT	CJY30E-10NAT CJY30E-10NBT CJY30E-10NCT CJY30E-10PAT CJY30E-10PBT CJY30E-10PCT	CJY30E-15NAT CJY30E-15NBT CJY30E-15NCT CJY30E-15PAT CJY30E-15PBT CJY30E-15PCT
Sensing distance		2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance					
Standard sensing target		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)					
Leakage current		Max.10mA					
Response frequency (※1)		1000Hz	500Hz	500Hz	350Hz	350Hz(高端) 400Hz(标准)	200Hz
Residual voltage		Max. 1.0V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ(at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-25~+70℃ (No icing)					
Storage temperature		-30~+80℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT					
Protection		IP65					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Specifications

DC 2-wire type

Model							
	High-end type	CJY12-02LAT CJY12-02LBT	CJY12-04LAT CJY12-04LBT	CJY18-05LAT CJY18-05LBT	CJY18-08LAT CJY18-08LBT	CJY30-10LAT CJY30-10LBT	CJY30-15LAT CJY30-15LBT
	Standard type	CJY12E-02LAT	CJY12E-04LAT	CJY18E-05LAT	CJY18E-08LAT	CJY30E-10LAT	CJY30E -15LAT
Sensing distance		2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance					
Standard sensing target		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)					
Leakage current		Max.0.8mA					
Response frequency (※1)		1000Hz	500Hz	500Hz	350Hz	350Hz	200Hz
Residual voltage		Max. 3.5V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ(at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-25~+70℃ (No icing)					
Storage temperature		-30~+80℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		Surge protection circuit					
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT					
Protection		IP65					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target. 1/2 of the sensing distance for the distance.

Specifications

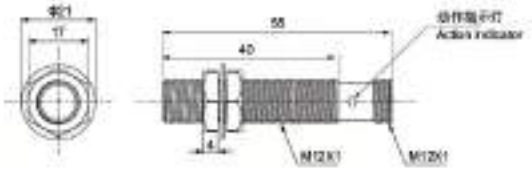
AC 2-wire type

Model							
	High-end type	/	CJY12-04KAT CJY12-04KBT	CJY18-05KAT CJY18-05KBT	CJY18-08KAT CJY18-08KBT	CJY30-10KAT CJY30-10KBT	CJY30-15KAT CJY30-15KBT
	Standard type	CJY12E-02KAT CJY12E-02KBT	CJY12E-04KAT CJY12E-04KBT	CJY18E-05KAT CJY18E-05KBT	CJY18E-08KAT CJY18E-08KBT	CJY30E-10KAT CJY30E-10KBT	CJY30E-15KAT CJY30E-15KBT
Sensing distance		2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance					
Standard sensing target		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		90-250VAC					
Leakage current		Max.10mA					
Response frequency (※1)		20Hz					
Residual voltage		10V 以下 Max. 10V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ (at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-25~+70℃ (No icing)					
Storage temperature		-30~+80℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		Surge protection current					
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT					
Protection		IP65					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Appearance and Dimension

CJY12-02T



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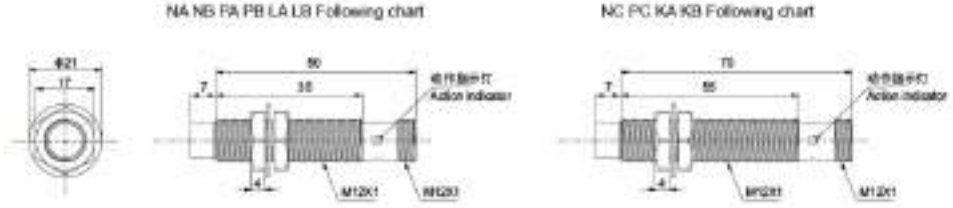

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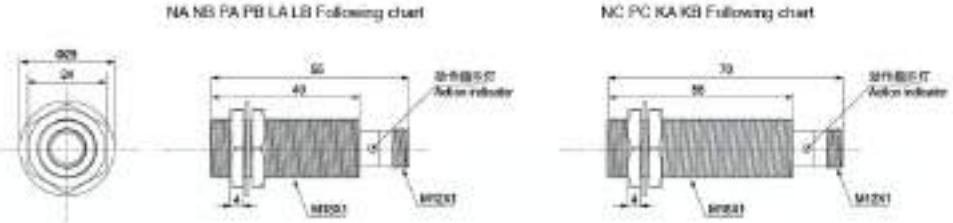

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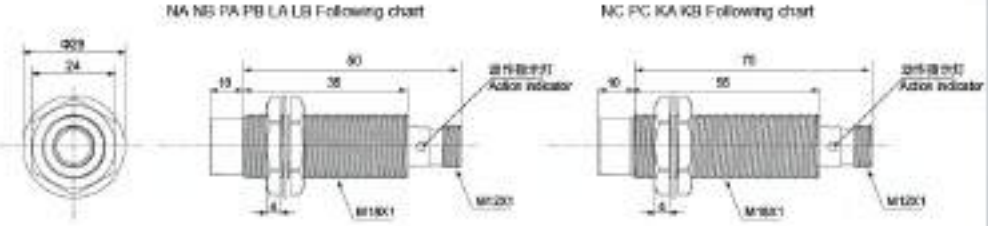

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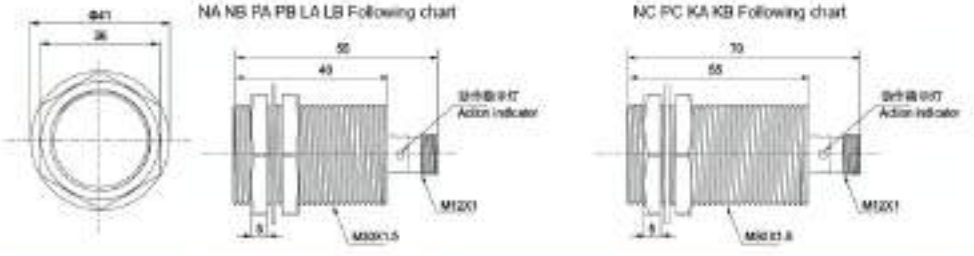

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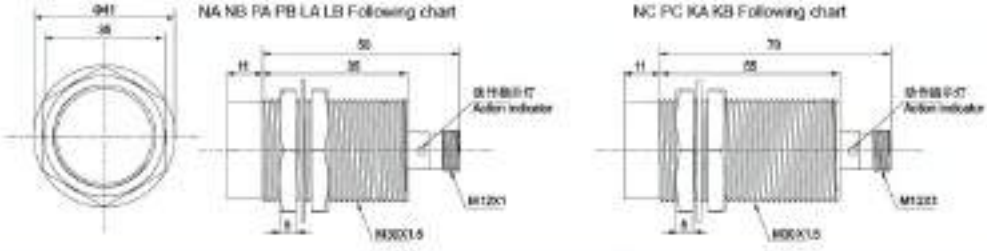
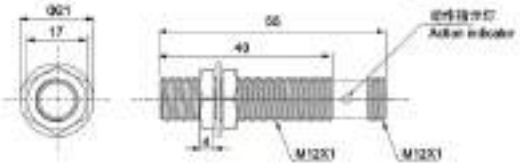
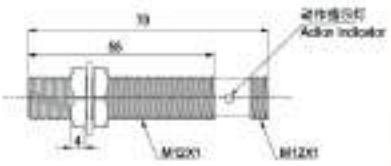


Proximity Sensor

Appearance and Dimension

CJY12E-02T





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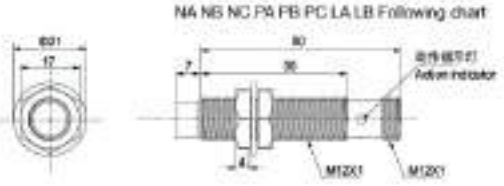

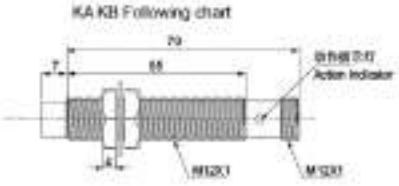

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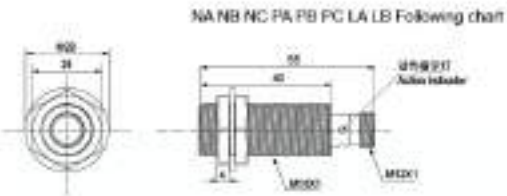

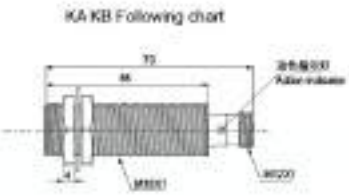

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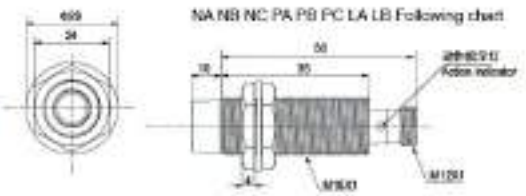
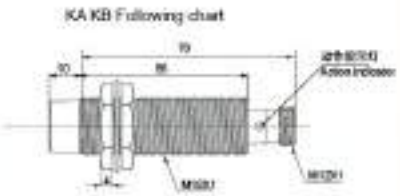
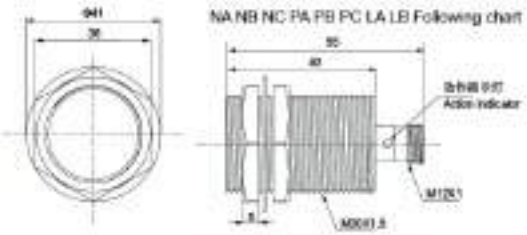
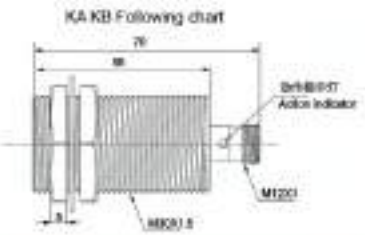


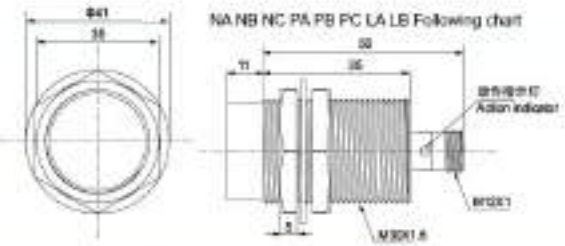


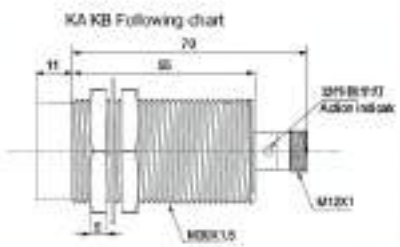
CJY30E-10T





CJY30E-15T



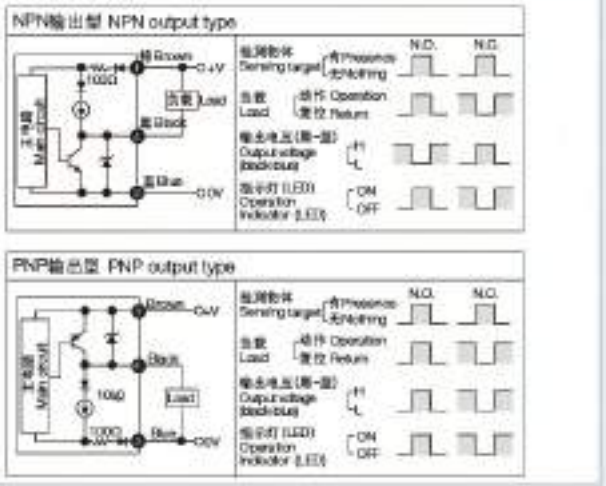


Proximity Sensor

Control Output Diagram

DC 2-wire type

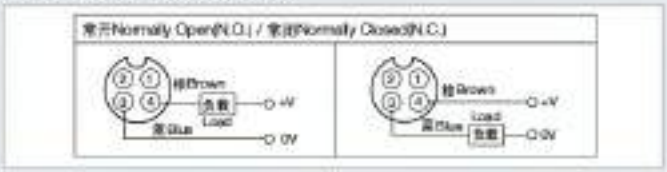
DC 3-wire type



AC 2-wire type

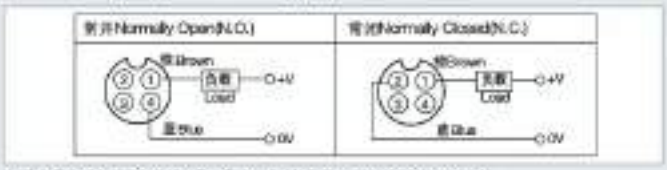
Wiring Diagram

DC 2-wire type (Standard type)



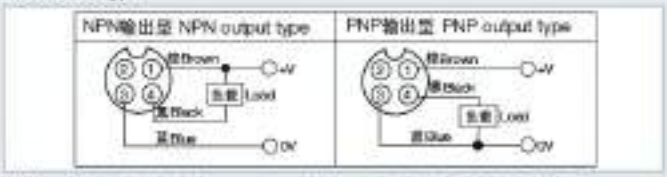
※ Pin ①, ② are not used terminals.
※ When using DC 3-wire type of connector cable, black (12-24VDC) and blue(0V) cables can be used.

DC 2-wire type (IEC standard type)



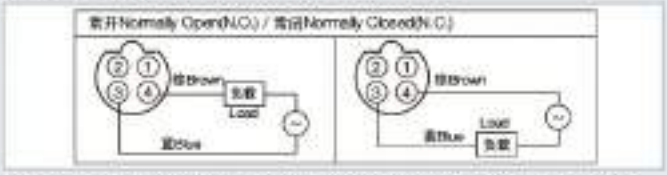
※ ①, ③ of N.O. type and ②, ④ of N.C. type are not used terminals.
※ Please use the IEC specifications of the plug.

DC 3-wire type



※ Please fasten the cleat of connector not to shown the thread. (0.39 to 0.49N.m)
※ Please fasten the vibration part with Teflon tape.

AC 2-wire type



※ In case of AC switching type, ② and ③, ① and ④ are connected to each other inside.

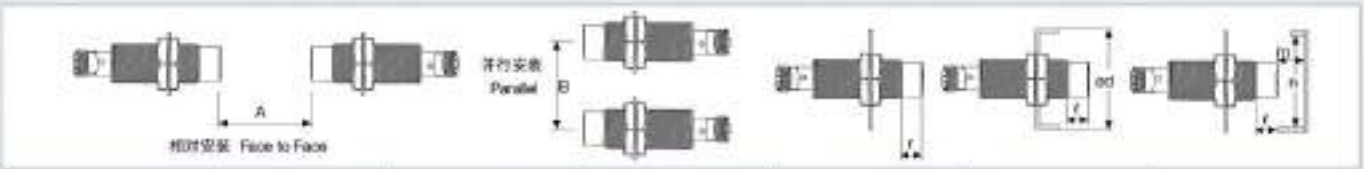
Proper Usage

utual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.



Item \ Model	CJY12-02T CJY12E-02T	CJY12-04T CJY12E-04T	CJY18-05T CJY18E-05T	CJY18-08T CJY18E-08T	CJY30-10T CJY30E-10T	CJY30-15T CJY30E-15T
A	12	24	30	48	60	90
B	24	36	36	54	60	90
ℓ	0	11	0	14	0	15
ϕd	12	36	18	54	30	90
m	6	12	15	24	30	45
n	18	36	27	54	45	90

Proximity Sensor

Features

- Orange mark for standard type
- Light green mark for high-end type

- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Orange

Light green

Model Number Structure

C J Y 18 □ – 08 N A R

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	Without	Without = High-end type（Light green head）
	E	E = Standard type（Orange head）
⑥ Detection distance	08	08=8mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

Specifications

DC 3-wire type

Model							
	High-end type	CJY12-02NAR CJY12-02NBR CJY12-02NCR CJY12-02PAR CJY12-02PBR CJY12-02PCR	CJY12-04NAR CJY12-04NBR CJY12-04NCR CJY12-04PAR CJY12-04PBR CJY12-04PCR	CJY18-05NAR CJY18-05NBR CJY18-05NCR CJY18-05PAR CJY18-05PBR CJY18-05PCR	CJY18-08NAR CJY18-08NBR CJY18-08NCR CJY18-08PAR CJY18-08PBR CJY18-08PCR	CJY30-10NAR CJY30-10NBR CJY30-10NCR CJY30-10PAR CJY30-10PBR CJY30-10PCR	CJY30-15NAR CJY30-15NBR CJY30-15NCR CJY30-15PAR CJY30-15PBR CJY30-15PCR
	Standard type	CJY12E-02NAR CJY12E-02NBR CJY12E-02NCR CJY12E-02PAR CJY12E-02PBR CJY12E-02PCR	CJY12E-04NAR CJY12E-04NBR CJY12E-04NCR CJY12E-04PAR CJY12E-04PBR CJY12E-04PCR	CJY18E-05NAR CJY18E-05NBR CJY18E-05NCR CJY18E-05PAR CJY18E-05PBR CJY18E-05PCR	CJY18E-08NAR CJY18E-08NBR CJY18E-08NCR CJY18E-08PAR CJY18E-08PBR CJY18E-08PCR	CJY30E-10NAR CJY30E-10NBR CJY30E-10NCR CJY30E-10PAR CJY30E-10PBR CJY30E-10PCR	CJY30E-15NAR CJY30E-15NBR CJY30E-15NCR CJY30E-15PAR CJY30E-15PBR CJY30E-15PCR
Sensing distance		2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis		Max. 10% of sensing distance					
Standard sensing target		12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance		0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)					
Leakage current		Max.10mA					
Response frequency (※1)		1000Hz	500Hz	500Hz	350Hz	350Hz	200Hz
Residual voltage		Max. 1.0V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ (at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-25~+70℃ (No icing)					
Storage temperature		-30~+80℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Material		Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)					
Cable		ϕ3.8, 3P,4P 300mm, M12 connector		ϕ4.8, 3P,4P 300mm, M12 connector			
Protection		IP67					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Proximity Sensor

Specifications

DC 2-wire type

Model	CJY12-02LAR CJY12-02LBR	CJY12-04LAR CJY12-04LBR	CJY18-05LAR CJY18-05LBR	CJY18-08LAR CJY18-08LBR	CJY30-10LAR CJY30-10LBR	CJY30-15LAR CJY30-15LBR
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance	0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Leakage current	Max.0.6mA					
Response frequency (※1)	1000Hz	500Hz	500Hz	350Hz	350Hz	200Hz
Residual voltage	Max. 3.5V					
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output	Max. 200mA					
Insulation resistance	Min. 50MΩ (at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Ambient temperature	-25~+70℃ (No icing)					
Storage temperature	-30~+80℃ (No icing)					
Ambient humidity	35~95%RH (No condensation)					
Protection circuit	Surge protection circuit, Overcurrent protection circuit					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC))					
Cable	ϕ3.8, 2P, 300mm, M12 connector		ϕ4.8, 2P, 300mm, M12 connector			
Protection	IP67					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Proximity Sensor

Specifications

AC 2-wire type

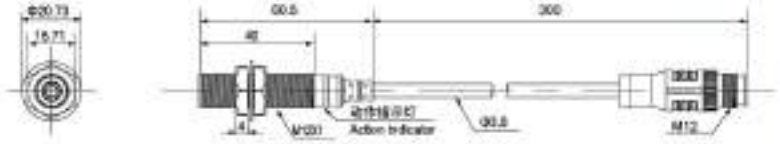
Model	CJY12-02KAR CJY12-02KBR	CJY12-04KAR CJY12-04KBR	CJY18-05KAR CJY18-05KBR	CJY18-08KAR CJY18-08KBR	CJY30-10KAR CJY30-10KBR	CJY30-15KAR CJY30-15KBR
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12 × 12 × 1mm (Iron)		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	45 × 45 × 1mm (Iron)
Setting distance	0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)	24-250VAC					
Leakage current	Max.10mA					
Response frequency (※1)	20Hz					
Residual voltage	Max. 10V					
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output	Max. 200mA					
Insulation resistance	Min. 50MΩ (at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Ambient temperature	-25~+70℃ (No icing)					
Storage temperature	-30~+80℃ (No icing)					
Ambient humidity	35~95%RH (No condensation)					
Protection circuit	Surge protection current					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)					
Cable	ϕ3.8, 2P, 300mm, M12 connector		ϕ4.8, 2P, 300mm, M12 connector			
Protection	IP67					

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

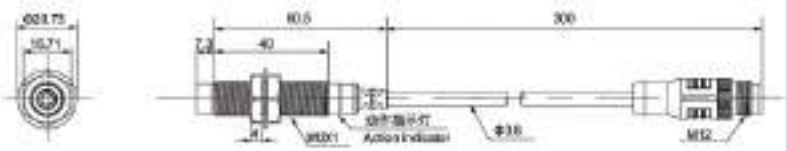
Proximity Sensor

Appearance and Dimension

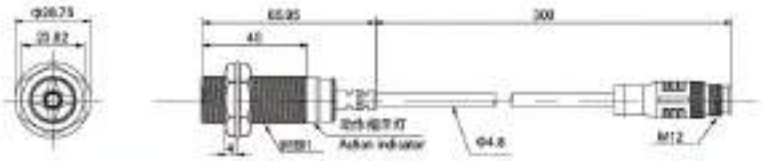
CJY12-02R



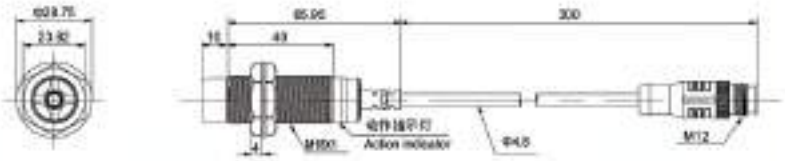
CJY12-04R



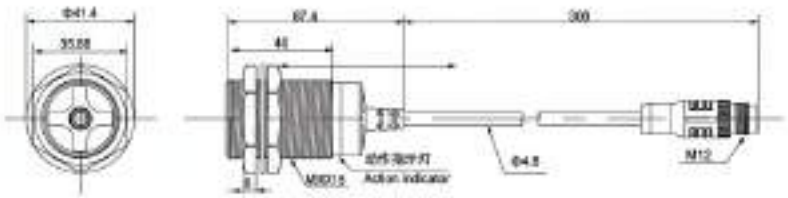
CJY18-05R



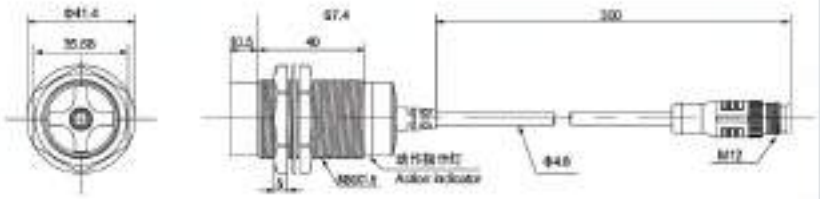
CJY18-08R



CJY30-10R



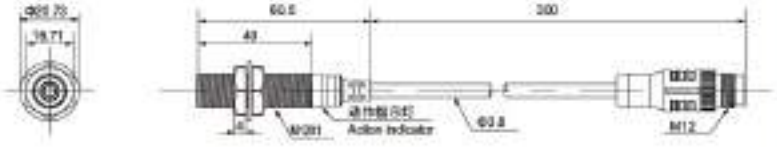
CJY30-15R



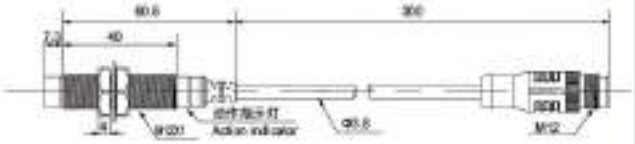
Proximity Sensor

Appearance and Dimension

CJY12E-02R

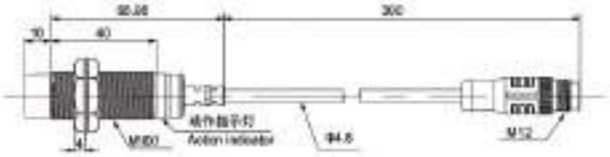


CJY12E-04R



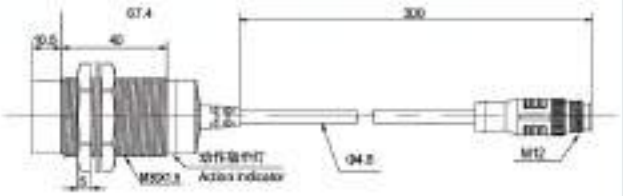
CJY18E-05R

CJY18E-08R



CJY30E-10R

CJY30E-15R

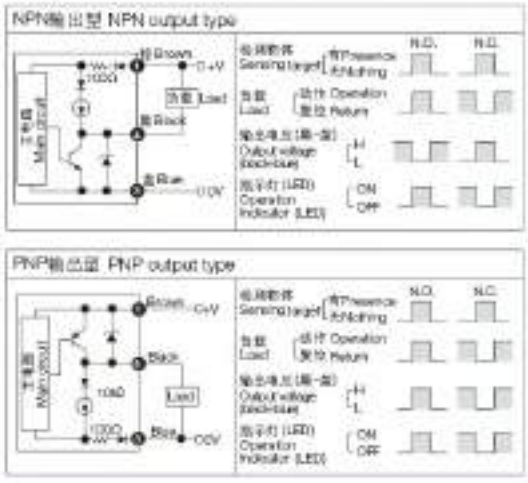


Proximity Sensor

Control Output Diagram

DC 2-wire type

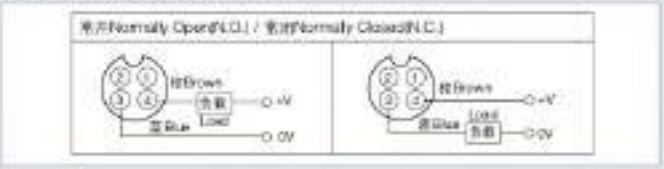
DC 3-wire type



AC 2-wire type

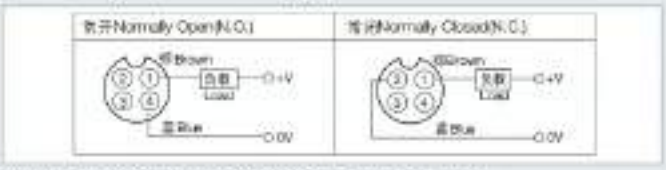
Wiring Diagram

DC 2-wire type (Standard type)



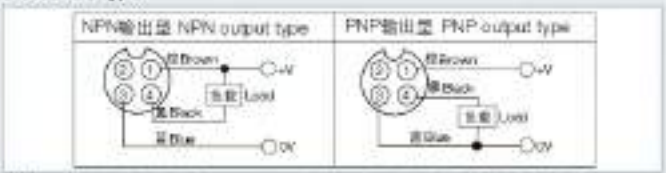
※ Pin ①, ② are not used terminals.
※ When using DC 3-wire type of connector cable, black (12-24VDC) and blue(0V) cables can be used.

DC 2-wire type (IEC standard type)



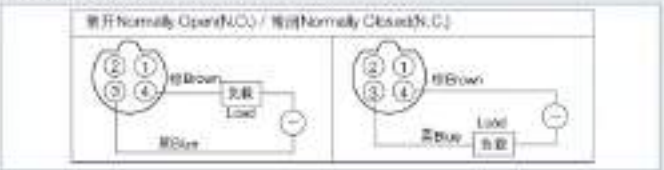
※ ③, ④ of N.O. type and ②, ④ of N.C. type are not used terminals.
※ Please use the IEC specifications of the plug.

DC 3-wire type



※ Please fasten the cleat of connector not to shown the thread. (0.39 to 0.49N.m)
※ Please fasten the vibration part with Teflon tape.

AC 2-wire type



※ In case of AC switching type, ② and ③, ① and ④ are connected to each other inside.

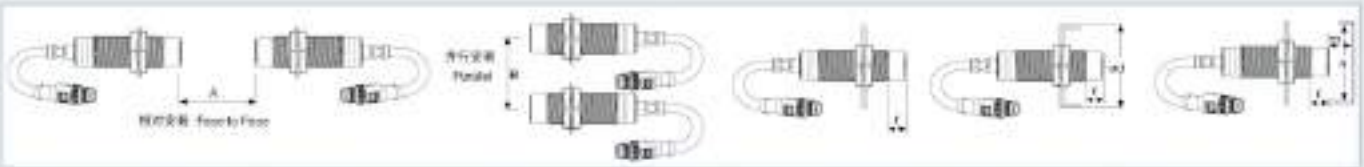
Proper Usage

Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.



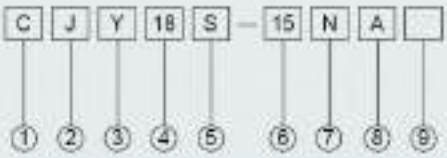
Item \ Model	CJY12-02R CJY12E-02R	CJY12-04R CJY12E-04R	CJY18-05R CJY18E-05R	CJY18-08R CJY18E-08R	CJY30-10R CJY30E-10R	CJY30-15R CJY30E-15R
A	12	24	30	48	60	90
B	24	36	36	54	60	90
ℓ	0	11	0	14	0	15
ϕd	12	36	18	54	30	90
m	6	12	15	24	30	45
n	18	36	27	54	45	90

Proximity Sensor

Features

- Long sensing distance (1.5 to 2 times longer sensing distance guaranteed compared to existing models)
- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Model Number Structure



Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	S	Long-range type
⑥ Detection distance	15	15=15mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

Specifications

DC 3-wire type

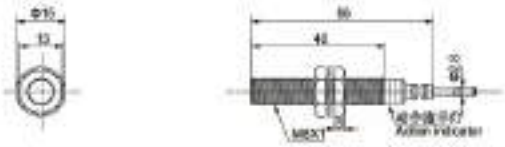
Model	CJY08S-1.5NA CJY08S-1.5NB CJY08S-1.5PA CJY08S-1.5PB	CJY08S-03NA CJY08S-03NB CJY08S-03PA CJY08S-03PB	CJY12S-04NA CJY12S-04NB CJY12S-04NC CJY12S-04PA CJY12S-04PB CJY12S-04PC	CJY12S-07NA CJY12S-07NB CJY12S-07NC CJY12S-07PA CJY12S-07PB CJY12S-07PC	CJY18S-10NA CJY18S-10NB CJY18S-10NC CJY18S-10PA CJY18S-10PB CJY18S-10PC	CJY18S-15NA CJY18S-15NB CJY18S-15NC CJY18S-15PA CJY18S-15PB CJY18S-15PC	CJY30S-17NA CJY30S-17NB CJY30S-17NC CJY30S-17PA CJY30S-17PB CJY30S-17PC	CJY30S-25NA CJY30S-25NB CJY30S-25NC CJY30S-25PA CJY30S-25PB CJY30S-25PC
Sensing distance	1.5mm	3mm	4mm	7mm	10mm	15mm	17mm	25mm
Hysteresis	Max. 10% of sensing distance							
Standard sensing target	8×8×1mm (Iron)	8×8×1mm (Iron)	12×12×1mm (Iron)	25×25×1mm (Iron)	20×20×1mm (Iron)	40×40×1mm (Iron)	45×45×1mm (Iron)	75×75×1mm (Iron)
Setting distance	0~1.8mm	0~3.5mm	0~3.5mm	0~6.5mm	0~8.5mm	0~13.5mm	0~18.5mm	0~28.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)							
Leakage current	Max.10mA							
Response frequency (※1)	450Hz	400Hz	400Hz	300Hz	300Hz	200Hz	100Hz	100Hz
Residual voltage (※2)	Max. 1V							
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃							
Control output	Max. 200mA							
Insulation resistance	Min. 50MΩ(at 500VDC megger)							
Dielectric strength	1500VAC 50/60Hz for 1minute							
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours							
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times							
Indicator	Operation indicator(red LED)							
Ambient temperature	-25~+70℃ (No icing)							
Storage temperature	-30~+80℃ (No icing)							
Ambient humidity	35~95%RH (No condensation)							
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit							
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)							
Cable	ϕ2.8, 3P, 2m		ϕ3.8, 3P,4P 2m		ϕ4.8, 3P,4P 2m			
	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)			
Protection	IP67							

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

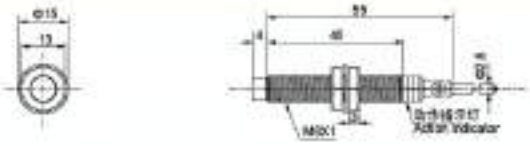
Proximity Sensor

Appearance and Dimension

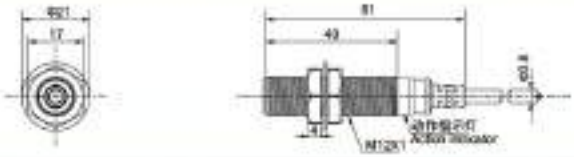
CJY08S-1.5



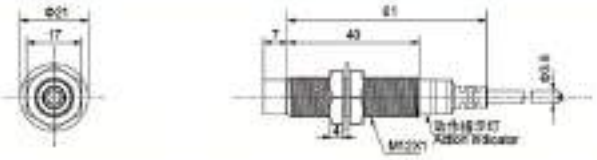
CJY08S-03



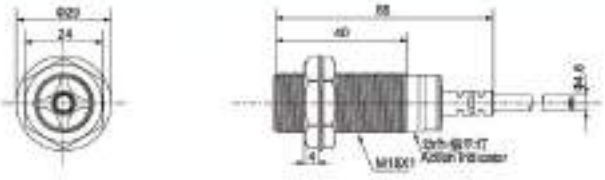
CJY12S-04



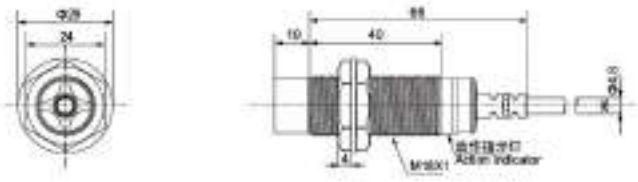
CJY12S-07



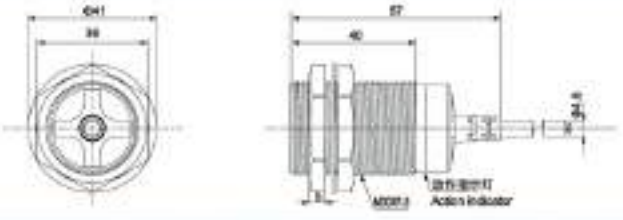
CJY18S-10



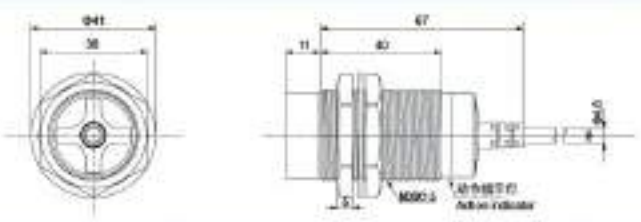
CJY18S-15



CJY30S-17



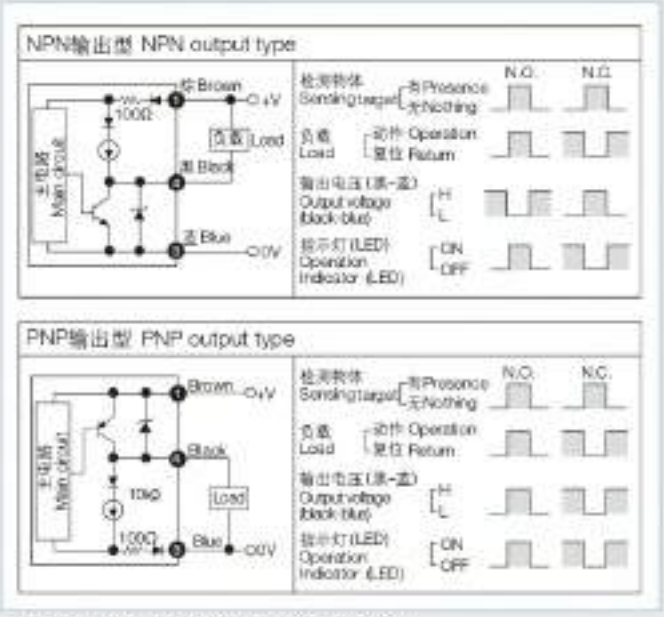
CJY30S-25



Proximity Sensor

Control Output Diagram

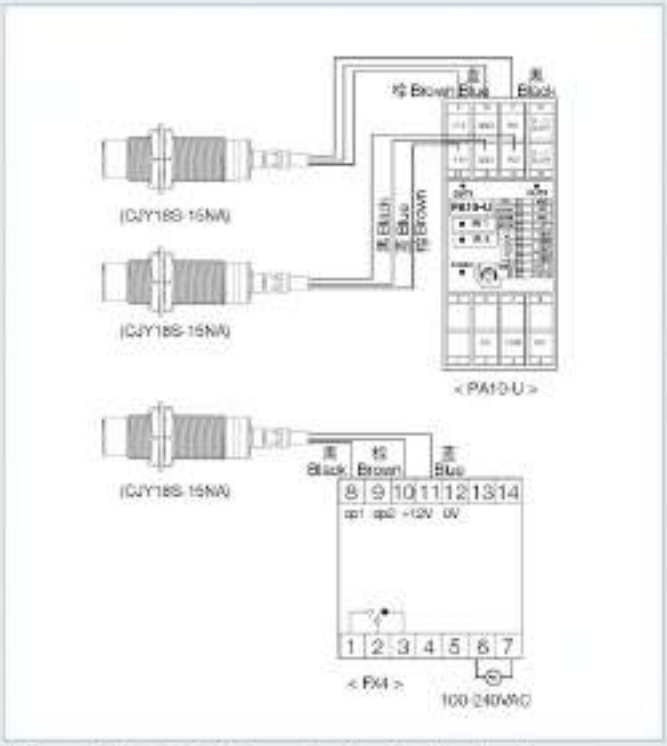
DC 3-wire type



※ The number in a circle is pin no. of connector.

Connections

DC 3-wire type

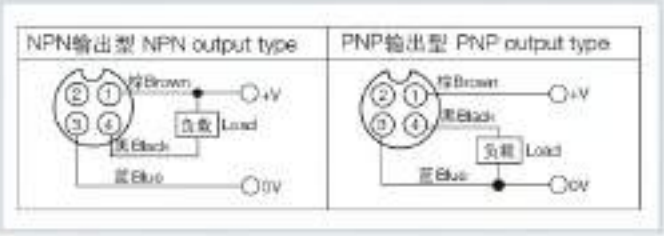


※ Please fasten the cleat of connector not to shown the thread. (0.39 to 0.49N.m)

※ Please fasten the vibration part with Teflon tape.

Wiring Diagram

DC 3-wire type (Standard type)



Proper Usage

Mutual-Interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.

Item \ Model	CJY08S-1.5	CJY08S-03	CJY12S-04	CJY12S-07	CJY18S-10	CJY18S-15	CJY30S-17	CJY30S-25
A	9	12	24	48	42	84	90	150
B	16	24	24	36	36	54	60	90
ℓ	0	8	0	11	0	14	0	15
ϕd	8	24	12	36	18	54	30	90
m	4.5	8	12	24	21	42	45	75
n	12	24	18	36	27	54	45	90

Proximity Sensor

Features

- Long sensing distance (1.5 to 2 times longer sensing distance guaranteed compared to existing models)
- Exclusively designed IC for improved the noise resistance
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)
- Replaceable for limit switches

Model Number Structure

C	J	Y	12	S	–	07	N	A	T
①	②	③	④	⑤		⑥	⑦	⑧	⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	12	12=M12
⑤ Product type	S	Long-range type
⑥ Detection distance	07	07=7mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

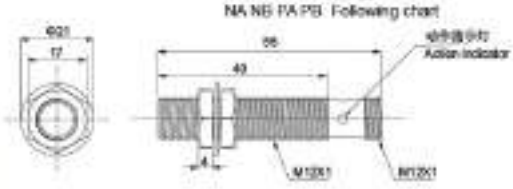
DC 3-wire type

Model	CJY12S-04NAT CJY12S-04NBT CJY12S-04NCT CJY12S-04PAT CJY12S-04PBT CJY12S-04PCT	CJY12S-07NAT CJY12S-07NBT CJY12S-07NCT CJY12S-07PAT CJY12S-07PBT CJY12S-07PCT	CJY18S-10NAT CJY18S-10NBT CJY18S-10NCT CJY18S-10PAT CJY18S-10PBT CJY18S-10PCT	CJY18S-15NAT CJY18S-15NBT CJY18S-15NCT CJY18S-15PAT CJY18S-15PBT CJY18S-15PCT	CJY30S-17NAT CJY30S-17NBT CJY30S-17NCT CJY30S-17PAT CJY30S-17PBT CJY30S-17PCT	CJY30S-25NAT CJY30S-25NBT CJY30S-25NCT CJY30S-25PAT CJY30S-25PBT CJY30S-25PCT
Sensing distance	4mm	7mm	10mm	15mm	17mm	25mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12 × 12 × 1mm (Iron)	25 × 25 × 1mm (Iron)	20 × 20 × 1mm (Iron)	40 × 40 × 1mm (Iron)	45 × 45 × 1mm (Iron)	75 × 75 × 1mm (Iron)
Setting distance	0~2.8mm	0~5.6mm	0~4.9mm	0~9.8mm	0~10.5mm	0~17.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Leakage current	Max.10mA					
Response frequency (※1)	400Hz	300Hz	300Hz	200Hz	100Hz	100Hz
Residual voltage	Max. 1V					
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output	Max. 200mA					
Insulation resistance	Min. 50MΩ (at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Ambient temperature	-25~+70℃ (No icing)					
Storage temperature	-30~+80℃ (No icing)					
Ambient humidity	35~95%RH (No condensation)					
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT					
Protection	IP65					

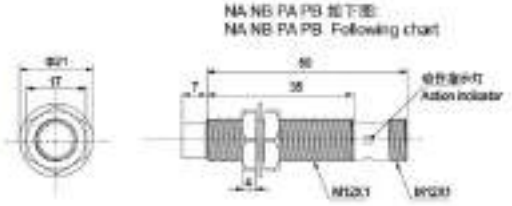
(※1) The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Appearance and Dimension

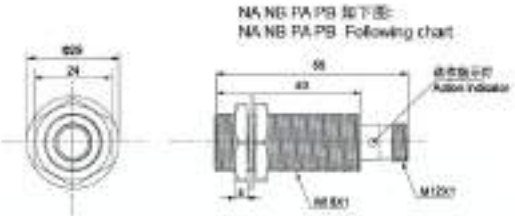
CJY12S-04T



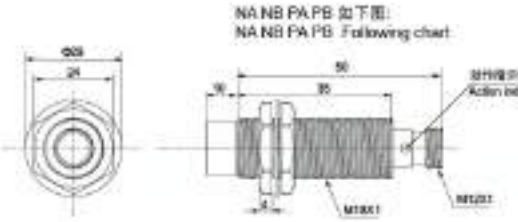
CJY12S-07T



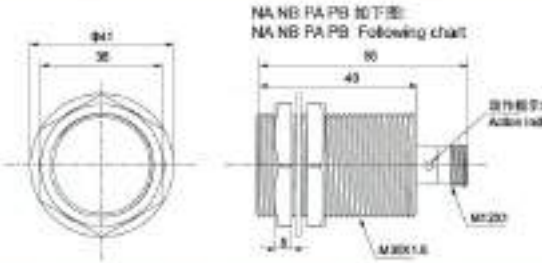
CJY18S-10T



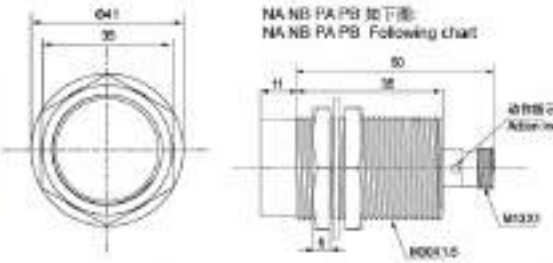
CJY18S-15T



CJY30S-17T

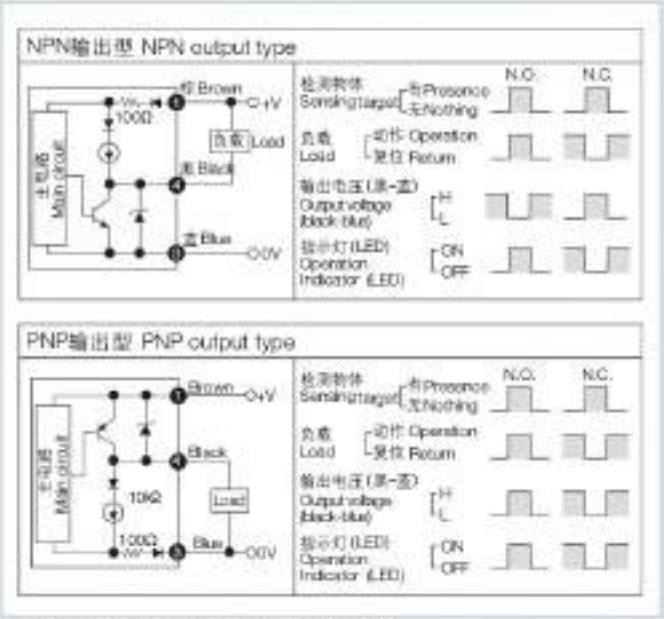


CJY30S-25T



Control Output Diagram

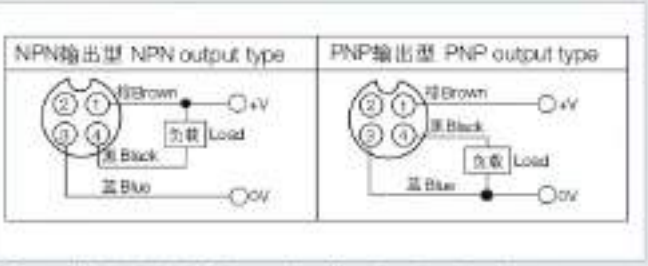
DC 3-wire type



- The number in a circle is pin no. of connector.

Wiring Diagram

DC 3-wire type (Standard type)



- Please fasten the cleat of connector not to shown the thread. (0.39 to 0.49N.m)
- Please fasten the vibration part with Teflon tape.

Proper Usage

Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.

Item \ Model	CJY12S-04T	CJY12S-07T	CJY18S-10T	CJY18S-15T	CJY30S-17T	CJY30S-25T
A	24	48	42	84	90	150
B	24	36	36	54	60	90
ℓ	0	11	0	14	0	15
ϕd	12	36	18	54	30	90
m	12	24	21	42	45	75
n	18	36	27	54	45	90

Proximity Sensor

Features

- Long sensing distance (1.5 to 2 times longer sensing distance guaranteed compared to existing models)
- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, encononic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Model Number Structure

C	J	Y	18	S	–	15	N	A	R
①	②	③	④	⑤		⑥	⑦	⑧	⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	S	Long-range type
⑥ Detection distance	15	15=15mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

DC 3-wire type

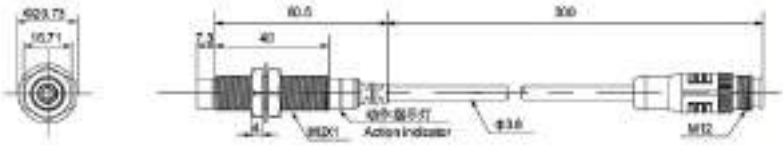
Model	CJY12S-04NAR CJY12S-04NBR CJY12S-04NCR CJY12S-04PAR CJY12S-04PBR CJY12S-04PCR	CJY12S-07NAR CJY12S-07NBR CJY12S-07NCR CJY12S-07PAR CJY12S-07PBR CJY12S-07PCR	CJY18S-10NAR CJY18S-10NBR CJY18S-10NCR CJY18S-10PAR CJY18S-10PBR CJY18S-10PCR	CJY18S-15NAR CJY18S-15NBR CJY18S-15NCR CJY18S-15PAR CJY18S-15PBR CJY18S-15PCR	CJY30S-17NAR CJY30S-17NBR CJY30S-17NCR CJY30S-17PAR CJY30S-17PBR CJY30S-17PCR	CJY30S-25NAR CJY30S-25NBR CJY30S-25NCR CJY30S-25PAR CJY30S-25PBR CJY30S-25PCR
Sensing distance	4mm	7mm	10mm	15mm	17mm	25mm
Hysteresis	Max. 10% of sensing distance					
Standard sensing target	12 × 12 × 1mm (Iron)	25 × 25 × 1mm (Iron)	20 × 20 × 1mm (Iron)	40 × 40 × 1mm (Iron)	45 × 45 × 1mm (Iron)	75 × 75 × 1mm (Iron)
Setting distance	0~2.6mm	0~5.6mm	0~4.9mm	0~9.8mm	0~10.5mm	0~17.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Leakage current	Max.10mA					
Response frequency (※1)	400Hz	300Hz	300Hz	200Hz	100Hz	100Hz
Residual voltage	Max. 1V					
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output	Max. 200mA					
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Ambient temperature	-25~+70℃ (No icing)					
Storage temperature	-30~+80℃ (No icing)					
Ambient humidity	35~95%RH (No condensation)					
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit					
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT					
Cable	ϕ3.8, 3P,4P 300mm, M12 connector		ϕ4.8, 3P,4P 300mm, M12 connector			
Protection	IP67					

(※1) The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

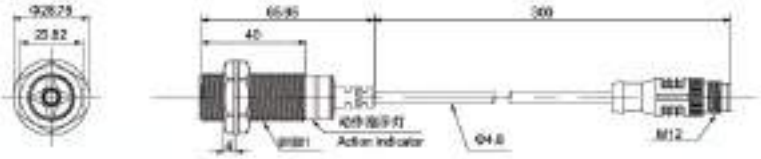
Appearance and Dimension

CJY12S-04R

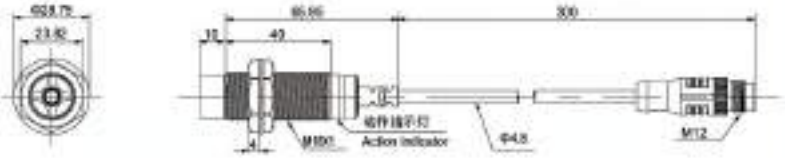
CJY12S-07R



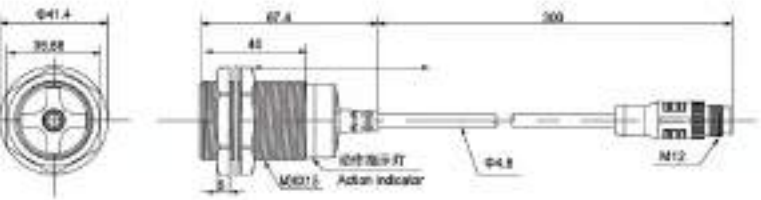
CJY18S-10R



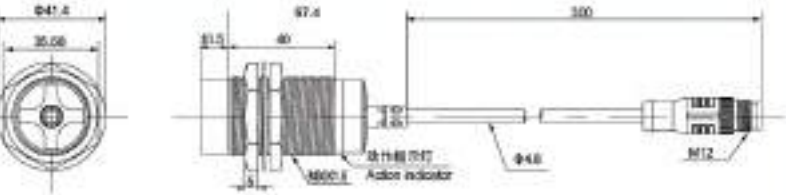
CJY18S-15R



CJY30S-17R

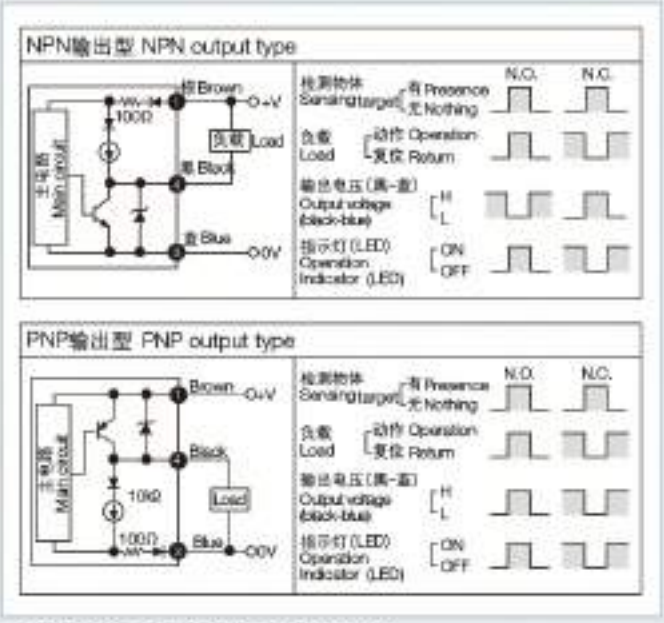


CJY30S-25R



Control Output Diagram

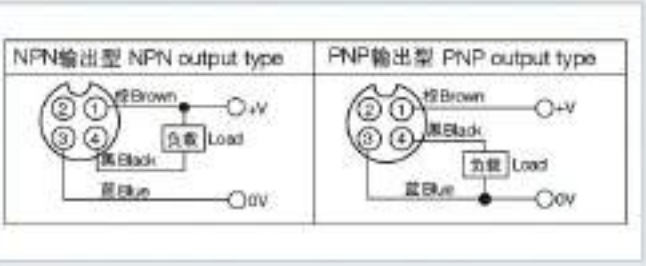
DC 3-wire type



※ The number in a circle is pin no. of connector.

Wiring Diagram

DC 3-wire type (Standard type)



※ Please fasten the cleat of connector not to shown the thread.
(0.39 to 0.49N.m)

※ Please fasten the vibration part with Teflon tape.

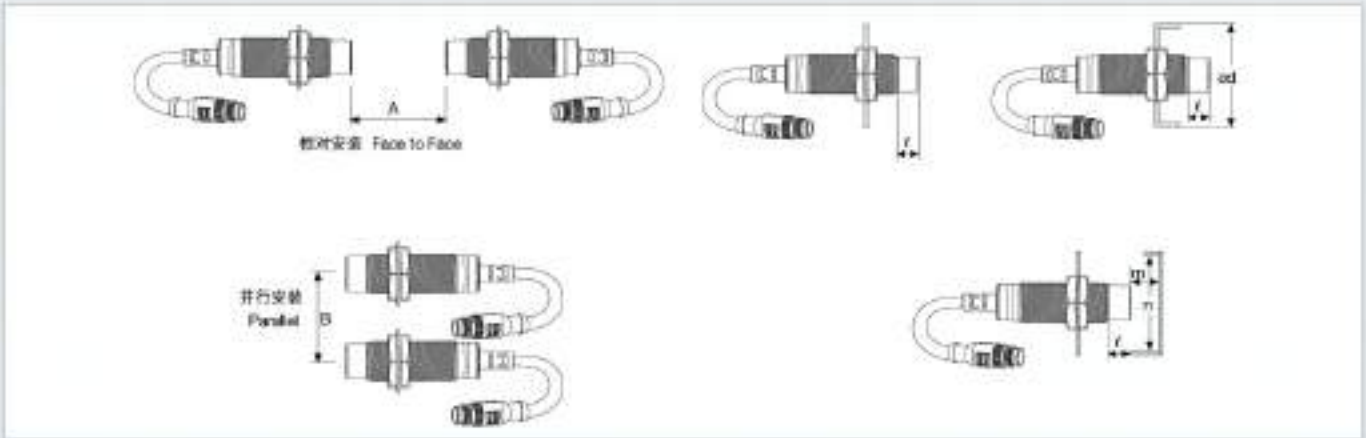
Proper Usage

Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

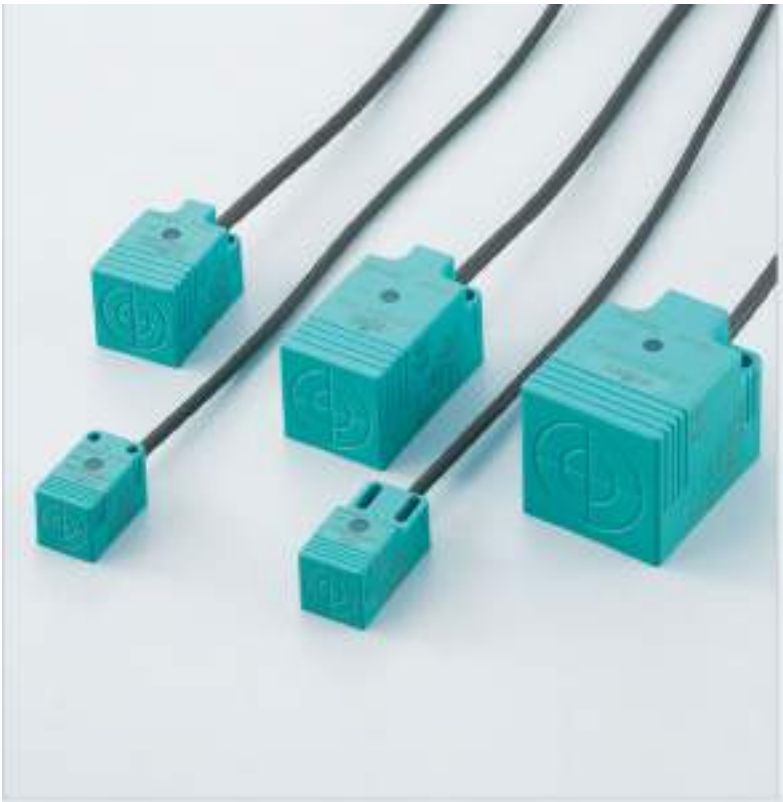
Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.



Item \ Model	CJY12S-04R	CJY12S-07R	CJY18S-10R	CJY18S-15R	CJY30S-17R	CJY30S-25R
A	24	48	42	84	90	150
B	24	36	36	54	60	90
ℓ	0	11	0	14	0	15
ϕ d	12	36	18	54	30	90
m	12	24	21	42	45	75
n	18	36	27	54	45	90

Proximity Sensor



Features

- Orange mark for standard type
- Light green mark for high-end type

- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Orange

Light green

Model Number Structure

C J F 18 ☐ – 05 N A ☐

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	F	Square
④ Dimension code	18	18=8 Square18
⑤ Product type	Without	Without =High-end type（Light green shell）
	E	E =Standard type（Orange shell）
⑥ Detection distance	05	05=5mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

DC 3wire type

Model	High-end type	CJF17-05NA CJF17-05NB CJF17-05PA CJF17-05PB	CJF18-05NA CJF18-05NB CJF18-05PA CJF18-05PB	CJF25-08NA CJF25-08NB CJF25-08PA CJF25-08PB	CJF30-12NA CJF30-12NB CJF30-12PA CJF30-12PB	CJF40-15NA CJF40-15NB CJF40-15PA CJF40-15PB
	Standard type	CJF17E-05NA CJF17E-05NB CJF17E-05PA CJF17E-05PB	CJF18E-05NA CJF18E-05NB CJF18E-05PA CJF18E-05PB	CJF25E-08NA CJF25E-08NB CJF25E-08PA CJF25E-08PB	CJF30E-12NA CJF30E-12NB CJF30E-12PA CJF30E-12PB	CJF40E-15NA CJF40E-15NB CJF40E-15PA CJF40E-15PB
Sensing distance		5mm	5mm	8mm	12mm	15mm
Hysteresis		Max. 10% of sensing distance				
Standard sensing target		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	40 × 40 × 1mm (Iron)	60 × 60 × 1mm (Iron)
Setting distance		0~3.5mm	0~3.5mm	0~5.5mm	0~7.5mm	0~12.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)				
Leakage current		Max.10mA				
Response frequency (※1)		500Hz	500Hz	350Hz	250Hz	100Hz
Residual voltage		1.0V 以下 Max. 1.0V				
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃				
Control output		Max. 200mA				
Insulation resistance		Min. 50MΩ (at 500VDC megger)				
Dielectric strength		1500VAC 50/60Hz for 1minute				
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours				
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times				
Indicator		Operation indicator(red LED)				
Ambient temperature		-25~+70℃ (No icing)				
Storage temperature		-30~+80℃ (No icing)				
Ambient humidity		35~95%RH (No condensation)				
Protection circuit		Surge protection circuit, Overcurrent protection circuit, Reverse polarity protection circuit				
Cable	High-end type	ϕ3.8, 3P, 2m		ϕ4.8, 3P, 2m		
		AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25		
	Standard type	ϕ3.8, 3P, 1.5m		ϕ4.8, 3P, 1.5m		
		AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25		
Material		Case: ABS, Standard cable(Dark Grey): Polyvinyl chloride(PVC)				
Protection		IP67				

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Proximity Sensor

Specifications

DC 2-wire type

Model						
	High-end type	CJF17-05LA CJF17-05LB	CJF18-05LA CJF18-05LB	CJF25-08LA CJF25-08LB	CJF30-12LA CJF30-12LB	CJF40-15LA CJF40-15LB
	Standard type	CJF17E-05LA	CJF18E-05LA	CJF25E-08LA	CJF30E-12LA	CJF40E-15LA
Sensing distance		5mm	5mm	8mm	12mm	15mm
Hysteresis		Max. 10% of sensing distance				
Standard sensing target		18 × 18 × 1mm (Iron)	25 × 25 × 1mm (Iron)	30 × 30 × 1mm (Iron)	40 × 40 × 1mm (Iron)	60 × 60 × 1mm (Iron)
Setting distance		0~3.5mm	0~3.5mm	0~5.5mm	0~7.5mm	0~12.5mm
Power supply (Operating voltage)		12-24VDC (10-30VDC)				
Leakage current		Max.0.6mA				
Response frequency (※1)		500Hz	500Hz	350Hz	250Hz	100Hz
Residual voltage		Max. 3.5V				
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃				
Control output		Max. 200mA				
Insulation resistance		Min. 50MΩ (at 500VDC megger)				
Dielectric strength		1500VAC 50/60Hz for 1minute				
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours				
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times				
Indicator		Operation indicator(red LED)				
Ambient temperature		-25~+70℃ (No icing)				
Storage temperature		-30~+80℃ (No icing)				
Ambient humidity		35~95%RH (No condensation)				
Protection circuit		Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit				
Cable	High-end type	ϕ3.8, 2P, 2m		ϕ4.8, 2P, 2m		
		AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25		
	Standard type	ϕ3.8, 2P, 1.5m		ϕ4.8, 2P, 1.5m		
		AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25		
Material		Case: ABS, Standard cable(Dark Grey): Polyvinyl chloride(PVC)				
Protection		IP67				

※ 标准产品和 IEC 标准的功能和规格是一样的.

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target. 1/2 of the sensing distance for the distance.

Specifications

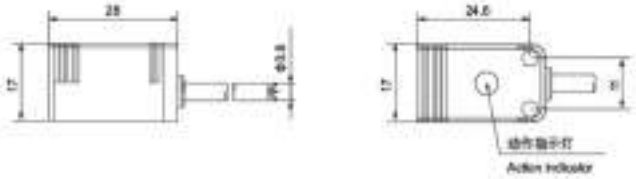
AC 2-wire type

Model	High-end type	CJF25-08KA CJF25-08KB	CJF30-12KA CJF30-12KB	CJF40-15KA CJF40-15KB
	Standard type	CJF25E-08KA CJF25E-08KB	CJF30E-12KA CJF30E-12KB	CJF40E-15KA CJF40E-15KB
Sensing distance		8mm	12mm	15mm
Hysteresis		Max. 10% of sensing distance		
Standard sensing target		30 × 30 × 1mm (Iron)	40 × 40 × 1mm (Iron)	60 × 60 × 1mm (Iron)
Setting distance		0~5.5mm	0~7.5mm	0~12.5mm
Power supply (Operating voltage)		24-250VAC		
Leakage current		Max.10mA		
Response frequency (※1)		20Hz		
Residual voltage		10V 以下 Max. 10V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		Max. 200mA		
Insulation resistance		Min. 50MΩ(at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-25~+70℃ (No icing)		
Storage temperature		-30~+80℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit		
Cable	High-end type	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)		
	Standard type	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)		
Material		Case: ABS, Standard cable(Dark Grey): Polyvinyl chloride(PVC)		
Protection		IP67		

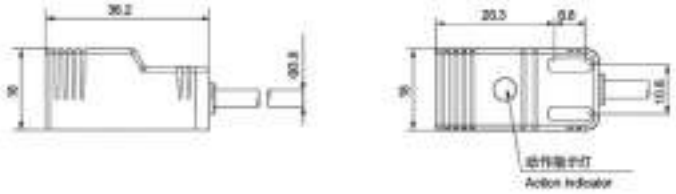
(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Appearance and Dimension

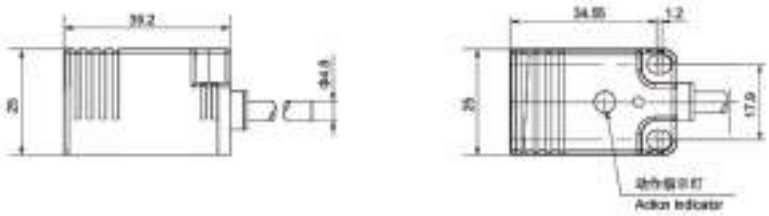
CJF17-05



CJF18-05



CJF25-08



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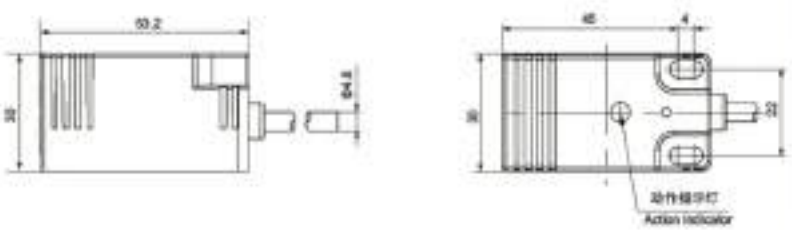

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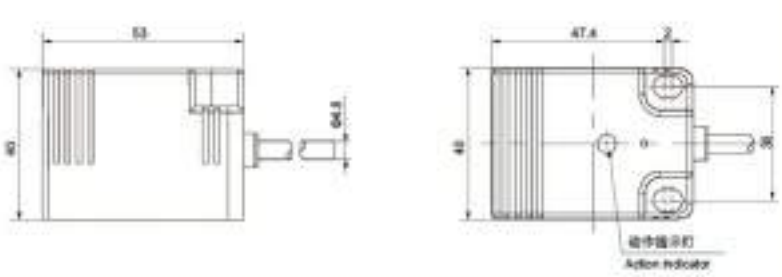
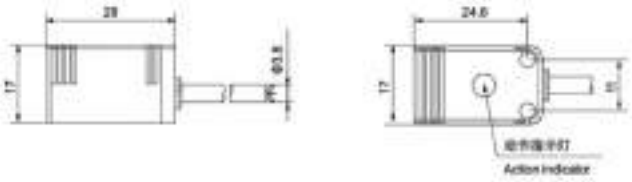


Appearance and Dimension

CJF17E-05



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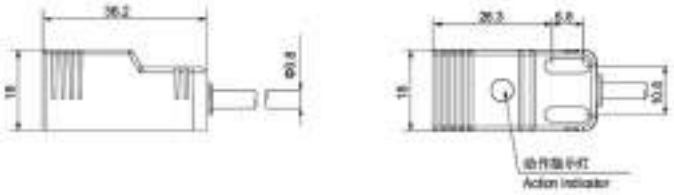

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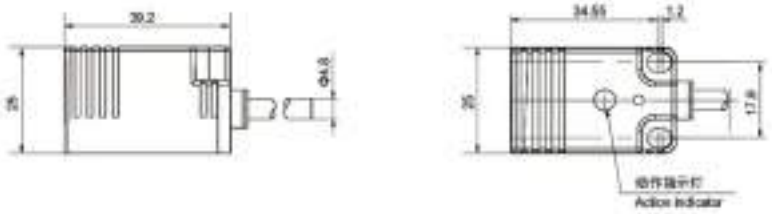
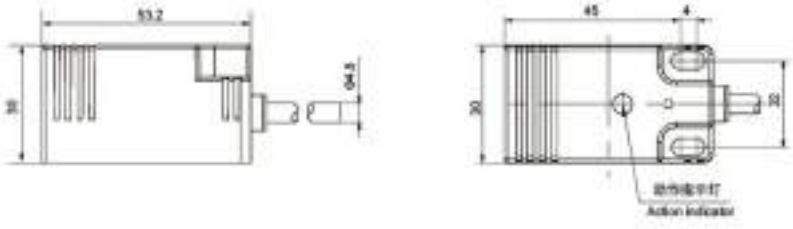
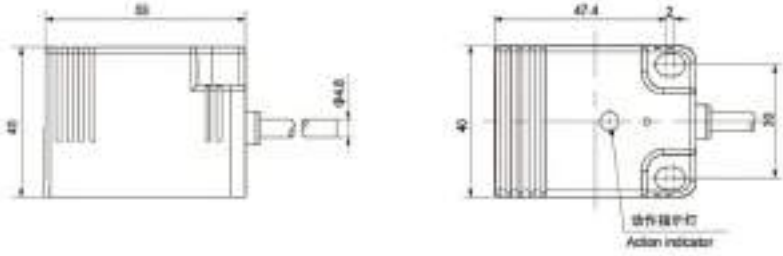


CJF30E-12



CJF40E-15

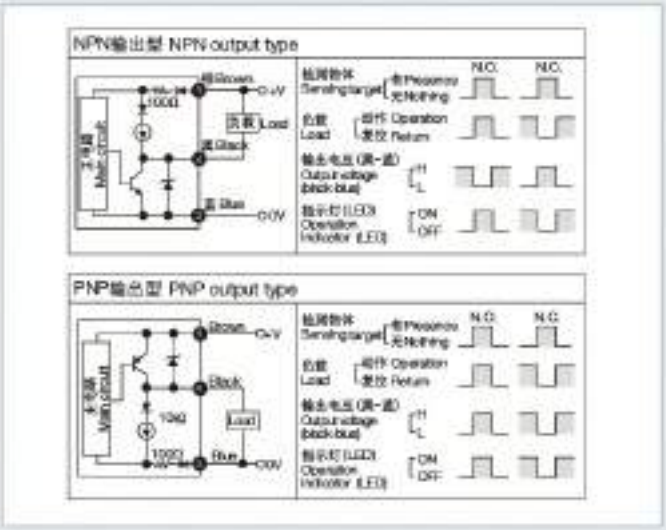


Control Output Diagram

DC 2-wire type

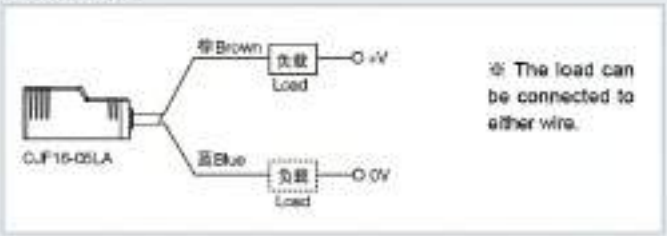
AC 2-wire type

DC 3-wire type



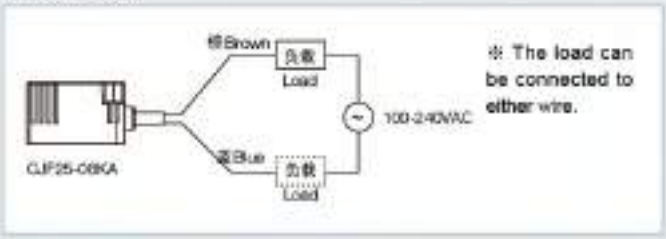
Connections

DC 2-wire type



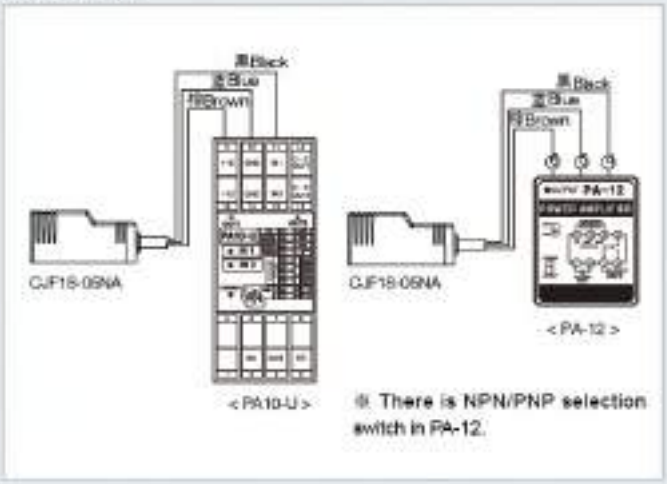
※ The load can be connected to either wire.

AC 2-wire type



※ The load can be connected to either wire.

DC 3-wire type

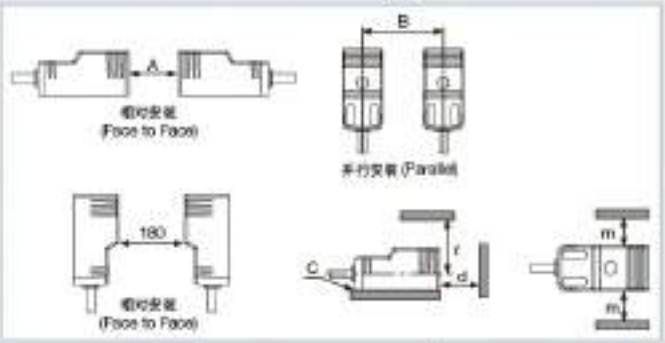


※ There is NPN/PNP selection switch in PA-12.

Proper Usage

Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.



Item \ Model	CJF17-05	CJF18-05	CJF25-08	CJF30-12	CJF40-15
	CJF17E-05	CJF18E-05	CJF25E-08	CJF30E-12	CJF40E-15
A	30	48	30	60	120
B	36	40	40	50	70
C	5	5	5	5	5
ϕd	15	24	15	30	60
ℓ	24	33	25	30	45
m	18	20	20	25	35

Proximity Sensor

Features

- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Model Number Structure

C	J	F	10	□	–	05	N	A	□
①	②	③	④	⑤		⑥	⑦	⑧	⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	F	Square
④ Dimension code	10	10=10 Square10
⑤ Product type	Without	High-end type
⑥ Detection distance	05	05=5mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

Specifications

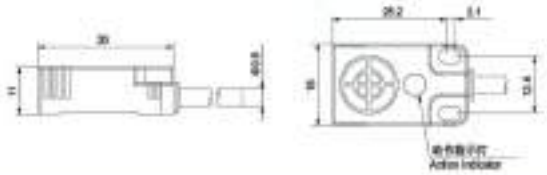
Model	CJF10-05LA CJF10-05NA CJF10-05NB CJF10-05PA CJF10-05PB	CJF11-06LA CJF11-06NA CJF11-06NB CJF11-06PA CJF11-06PB	CJF12-07LA CJF12-07NA CJF12-07NB CJF12-07PA CJF12-07PB
Sensing distance	5mm	6mm	7mm
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	25 × 25 × 1mm (Iron)		
Setting distance	0~3.5mm	0~3.5mm	0~5.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)		
Leakage current	Max.10mA		
Response frequency (※1)	500Hz	500Hz	400Hz
Residual voltage	DC 二线 : Max. 3.5V DC 三线 : Max. 1.0V		
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		
Insulation resistance	Min. 50MΩ (at 500VDC megger)		
Dielectric strength	1500VAC 50/60Hz for 1minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Ambient temperature	-25~+70℃ (No icing)		
Storage temperature	-30~+80℃ (No icing)		
Ambient humidity	35~95%RH (No condensation)		
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit		
Cable	φ3.8, 2P, 2m φ3.8, 3P, 2m		
	(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: φ1.25)		
Material	Case: PBT, Standard cable(Grey): Polyvinyl chloride(PVC)		
Protection	IP67		

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance

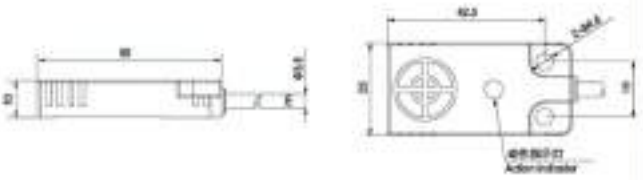
Proximity Sensor

Appearance and Dimension

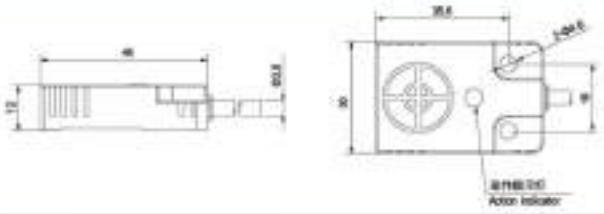
CJF10-05



CJF11-08



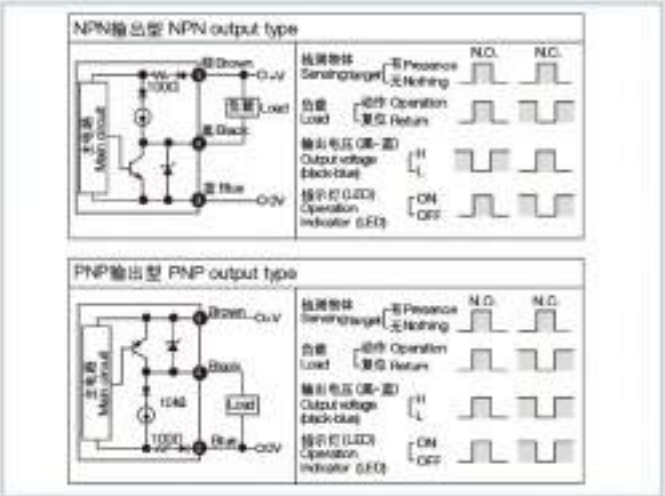
CJF12-07



Control Output Diagram

DC 2-wire type

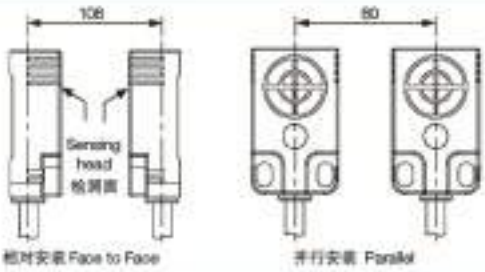
DC 3-wire type



Proper Usage

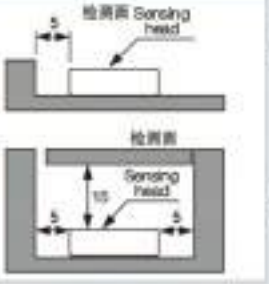
Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.



Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.



※ When the height between the proximity sensor and surrounding metals is same.

※ When the height between the proximity sensor and surrounding metals is different.

Proximity Sensor

Features

- Inside surge protection, reverse polarity protection, overcurrent protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)
- Replaceable for limit switches

Model Number Structure

C J F 42 □ – 10 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	F	Square
④ Dimension code	42	42=Φ42
⑤ Product type	Without	High-end type
⑥ Detection distance	10	10=10mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

DC 3wire type

Model	CJF36-07NA CJF36-07NB CJF36-07PA CJF36-07PB	CJF42-10NA CJF42-10NB CJF42-10PA CJF42-10PB	CJF48-15NA CJF48-15NB CJF48-15PA CJF48-15PB	CJF55-20NA CJF55-20NB CJF55-20PA CJF55-20PB
Sensing distance	7mm	10mm	15mm	20mm
Hysteresis	Max. 10% of sensing distance			
Standard sensing target	50 × 50 × 1mm (Iron)	55 × 55 × 1mm (Iron)	60 × 60 × 1mm (Iron)	80 × 80 × 1mm (Iron)
Setting distance	0~5.5mm	0~7.5mm	0~12.5mm	0~15.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)			
Leakage current	Max.10mA			
Response frequency (※1)	300Hz	200Hz	100Hz	100Hz
Residual voltage	1.0V 以下 Max. 1.0V			
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output	Max. 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Ambient temperature	-25~+70℃ (No icing)			
Storage temperature	-30~+80℃ (No icing)			
Ambient humidity	35~95%RH (No condensation)			
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit			
Cable	ϕ3.8, 3P, 2m		ϕ4.8, 3P, 2m	
	AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
Material	Case: PBT, Standard cable(Grey): Polyvinyl chloride(PVC)			
Protection	IP67			

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Proximity Sensor

Specifications

DC 2-wire type

Model	CJF36-07LA CJF36-07LB	CJF42-10LA CJF42-10LB	CJF48-15LA CJF48-15LB	CJF55-20LA CJF55-20LB
Sensing distance	7mm	10mm	15mm	20mm
Hysteresis	Max. 10% of sensing distance			
Standard sensing target	50 × 50 × 1mm (Iron)	55 × 55 × 1mm (Iron)	60 × 60 × 1mm (Iron)	80 × 80 × 1mm (Iron)
Setting distance	0~5.5mm	0~7.5mm	0~12.5mm	0~15.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)			
Leakage current	Max.0.6mA			
Response frequency (※1)	300Hz	200Hz	100Hz	100Hz
Residual voltage	Max. 3.5V			
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output	Max. 200mA			
Insulation resistance	Min. 50MΩ (at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Ambient temperature	-25~+70℃ (No icing)			
Storage temperature	-30~+80℃ (No icing)			
Ambient humidity	35~95%RH (No condensation)			
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit			
Cable	ϕ3.8, 2P, 2m		ϕ4.8, 2P, 2m	
	AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
Material	Case: PBT, Standard cable(Grey): Polyvinyl chloride(PVC)			
Protection	IP67			

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Specifications

AC 2-wire type

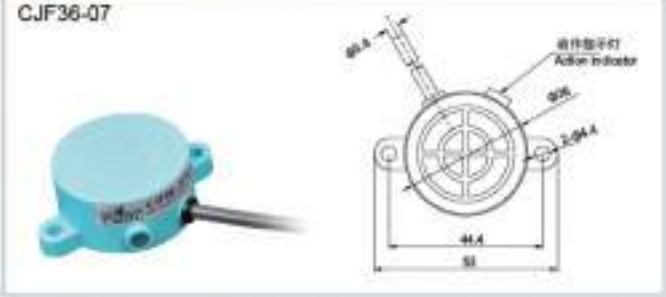
Model	CJF42-10KA CJF42-10KB	CJF48-15KA CJF48-15KB	CJF55-20KA CJF55-20KB
Sensing distance	10mm	15mm	20mm
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	55 × 55 × 1mm (Iron)	60 × 60 × 1mm (Iron)	80 × 80 × 1mm (Iron)
Setting distance	0~7.5mm	0~12.5mm	0~15.5mm
Power supply (Operating voltage)	24-250VAC		
Leakage current	Max.10mA		
Response frequency (※1)	20Hz		
Residual voltage	Max. 10V		
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1500VAC 50/60Hz for 1minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Ambient temperature	-25~+70℃ (No icing)		
Storage temperature	-30~+80℃ (No icing)		
Ambient humidity	35~95%RH (No condensation)		
Protection circuit	Surge protection circuit		
Cable	ϕ3.8, 2P, 2m (AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25)	ϕ4.8, 2P, 2m (AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25)	
Material	Case: PBT, Standard cable(Grey): Polyvinyl chloride(PVC)		
Protection	IP67		

(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

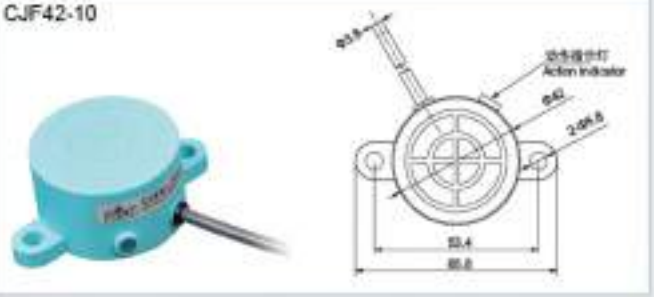
Proximity Sensor

Appearance and Dimension

CJF36-07

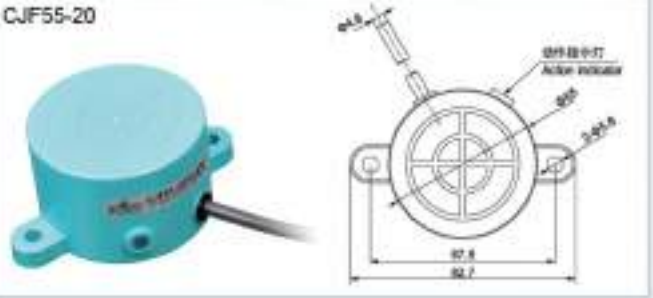


CJF42-10



CJF48-15

CJF55-20

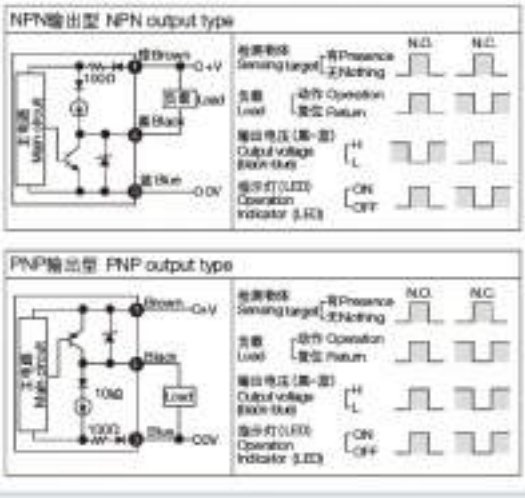


Control Output Diagram

DC 2-wire type

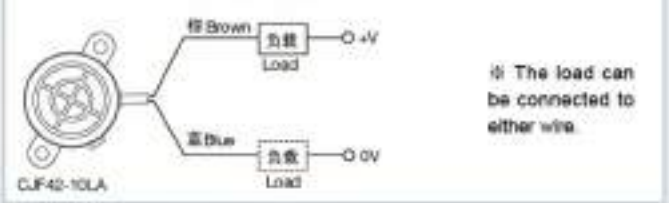
AC 2-wire type

DC 3-wire type



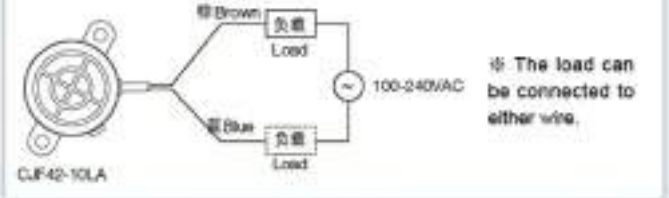
Connections

DC 2-wire type



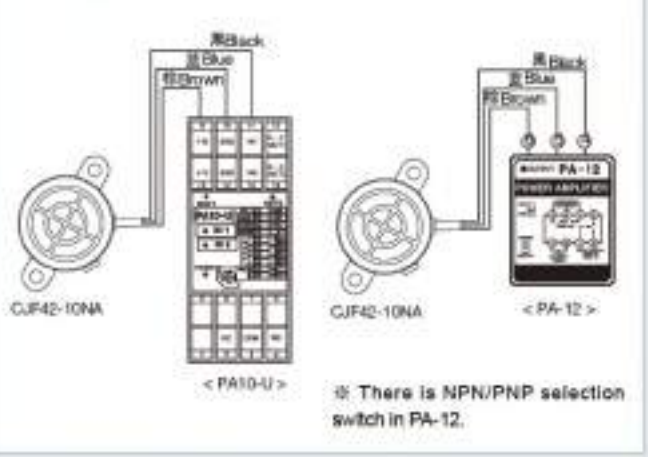
※ The load can be connected to either wire.

AC 2-wire type



※ The load can be connected to either wire.

DC 3-wire type



※ There is NPN/PNP selection switch in PA-12.

Proximity Sensor

Features

- Long sensing distance 50mm
- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection, overcurrent protection
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

Model Number Structure

C J F 40X □ – 20 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	J	Inductive proximity sensor
③ Shape of shell	F	Square
④ Dimension code	40X	40X= 长方形 40 Rectangle 40
⑤ Product type	Without	High-end type
⑥ Detection distance	20	20=20mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

Specifications

Model	CJF40X-20LA CJF40X-20LB CJF40X-20NA CJF40X-20NB CJF40X-20PA CJF40X-20PB CJF40X-20KA CJF40X-20KB	CJF40Y-20LA CJF40Y-20LB CJF40Y-20NA CJF40Y-20NB CJF40Y-20PA CJF40Y-20PB CJF40Y-20KA CJF40Y-20KB	CJF80-50LA CJF80-50LB CJF80-50NA CJF80-50NB CJF80-50PA CJF80-50PB CJF80-50KA CJF80-50KB
Sensing distance	20mm	20mm	50mm
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	75 × 75 × 1mm (Iron)	75 × 75 × 1mm (Iron)	120 × 120 × 1mm (Iron)
Setting distance	0~15.5mm	0~15.5mm	0~40mm
Power supply (Operating voltage)	10-30VDC / 24-250VAC		
Leakage current	Max.10mA		
Response frequency (※1)	DC 200Hz / AC 20Hz		
Residual voltage	DC 二线 : Max. 3.5V DC 三线 : Max. 1.0V AC 二线 : 10V 以下 Max. 10V		
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1500VAC 50/60Hz for 1minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Ambient temperature	-25~+70℃ (No icing)		
Storage temperature	-30~+80℃ (No icing)		
Ambient humidity	35~95%RH (No condensation)		
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit		
Material	Case: PBT, Standard cable(Grey): Polyvinyl chloride(PVC)		
Protection	IP65		

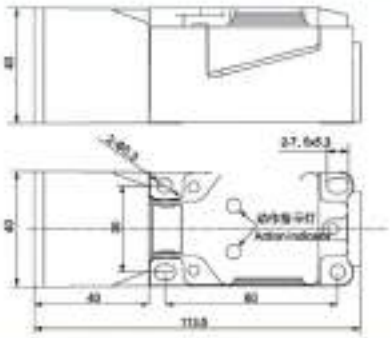
(※1): The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

Proximity Sensor

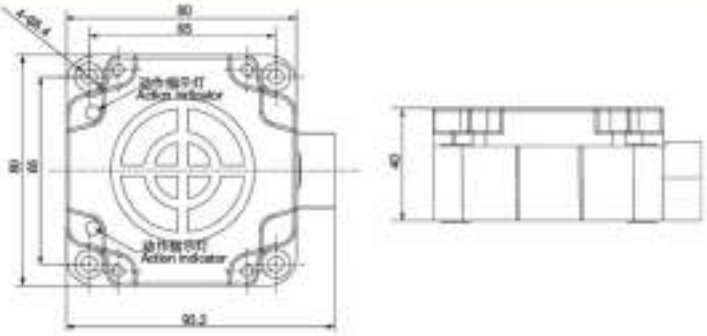
Appearance and Dimension

CJF40Y-20

CJF40X-20

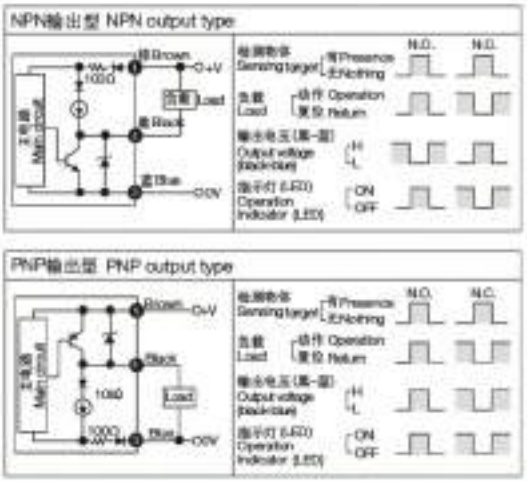


CJF80-50



Control Output Diagram

DC 3-wire type



AC 2-wire type

Proximity Sensor

Features

- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

Model Number Structure

C R Y 18 □ – 05 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	R	Capacitve proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	Without	High-end type
⑥ Detection distance	05	05=5mm
⑦ Output mode	K	AC 2wires
	L	DC 2wires
	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

DC 3wire type

Model	CRY12-02NA CRY12-02NB CRY12-02PA CRY12-02PB	CRY12-04NA CRY12-04NB CRY12-04PA CRY12-04PB	CRY18-05NA CRY18-05NB CRY18-05NC CRY18-05PA CRY18-05PB CRY18-05PC	CRY18-08NA CRY18-08NB CRY18-08NC CRY18-08PA CRY18-08PB CRY18-08PC	CRY30-10NA CRY30-10NB CRY30-10NC CRY30-10PA CRY30-10PB CRY30-10PC	CRY30-15NA CRY30-15NB CRY30-15NC CRY30-15PA CRY30-15PB CRY30-15PC
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance					
Setting distance	0~1.4mm	0~2.8mm	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)					
Leakage current	Max.10mA					
Response frequency (※1)	50Hz					
Residual voltage	1.0V 以下 Max. 1.0V					
Affection by Temp.	在-25~+60℃温度范围内+20℃时的的 ±10% 以内 Max. ±10% for sensing distance at ambient temperature 20℃					
Control output	Max. 200mA					
Insulation resistance	Min. 50MΩ(at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator	Operation indicator(red LED)					
Ambient temperature	-25~+60℃ (No icing)					
Storage temperature	-30~+80℃ (No icing)					
Ambient humidity	35~95%RH (No condensation)					
Protection circuit	Surge protection circuit, Overcurrent protection circuit					
Material	Case/Nut: ABS, Washer: Plastic, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)					
Cable	ϕ3.8, 3P, 2m		ϕ4.8, 3P,4P 2m			
	(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25			
Protection	IP65					

Specifications

AC 2wire type

Model	CRY18-05KA CRY18-05KB	CRY18-08KA CRY18-08KB	CRY30-10KA CRY30-10KB	CRY30-15KA CRY30-15KB
Sensing distance	5mm	8mm	10mm	15mm
Hysteresis	Max. 10% of sensing distance			
Setting distance	0~3.5mm	0~5.6mm	0~7mm	0~10.5mm
Power supply (Operating voltage)	90-250VAC			
Leakage current	Max.10mA			

Proximity Sensor

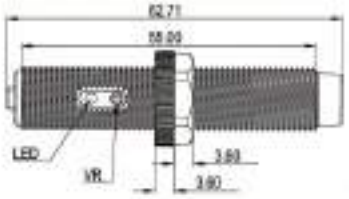
Specifications

AC 2wire type

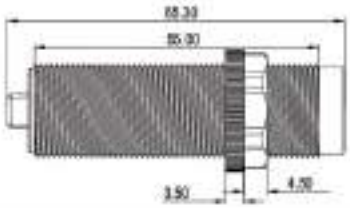
Model	CRY18-05KA CRY18-05KB	CRY18-08KA CRY18-08KB	CRY30-10KA CRY30-10KB	CRY30-15KA CRY30-15KB
Response frequency (※1)	50Hz			
Residual voltage	10V 以下 Max. 10V			
Affection by Temp.	在 -25~+60℃温度范围内 +20℃时的的 ±10% 以内 Max. ±10% for sensing distance at ambient temperature 20℃			
Control output	Max. 200mA			
Insulation resistance	Min. 50MΩ(at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Ambient temperature	-25~+60℃ (No icing)			
Storage temperature	-30~+80℃ (No icing)			
Ambient humidity	35~95%RH (No condensation)			
Protection circuit	Surge protection circuit,			
Material	Case/Nut: ABS, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)			
Cable	ϕ4.8, 2P, 2m			
	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25			
Protection	IP65			

Appearance and Dimension

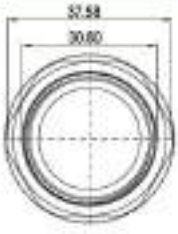
CRY12

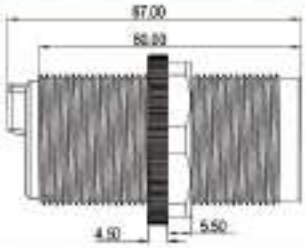


CRY18



CRY30



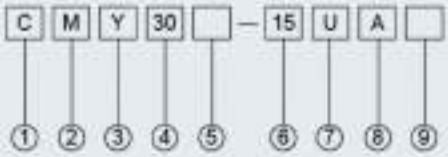


Proximity Sensor

Features

- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

Model Number Structure



Item	Code	Description
① Company code	C	Company code
② Product name	M	Analog proximity sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	30	30=M30
⑤ Product type	Without	High-end type
	E	Standard type
⑥ Detection distance	15	15=15mm
⑦ Output mode	U	Voltage mode
	I	Current mode
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Proximity Sensor

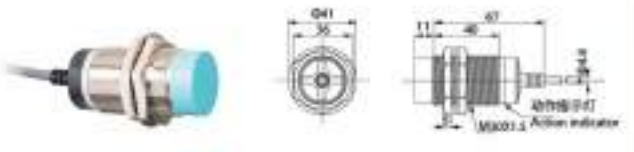
Specifications

Model	CMY18-08U CMY18-08I	CMY30-15U CMY30-15I	CMF40-20U CMF40-20I	CMF48-20U CMF48-20I
Sensing distance	1-8mm	1-15mm	1-20mm	1-20mm
Hysteresis	3-20%			
Power supply (Operating voltage)	15-30VDC			
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output	Output voltage / Current output			
Insulation resistance	Min. 50MΩ(at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Ambient temperature	-15~+55℃ (No icing)			
Storage temperature	-15~+55℃ (No icing)			
Ambient humidity	35~95%RH (No condensation)			
Protection circuit	Surge protection circuit, Overcurrent protection circuit			
Material	Case/Nut: Plastic, Washer: Plastic, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)			
Cable	ϕ3.8, 2P, 2m		ϕ4.8, 2P, 2m	
	(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
Protection	IP65			

Appearance and Dimension

CMY18-08

CMY30-15



CMF40-20

CMF48-20

Hall Sensor

Features

- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)

Model Number Structure

C H Y 08 □ – 10 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	H	Hall sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	08	08=M08
⑤ Product type	Without	High-end type
⑥ Detection distance	10	10=10mm
⑦ Output mode	P	PNP 3wires
	N	NPN 3wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

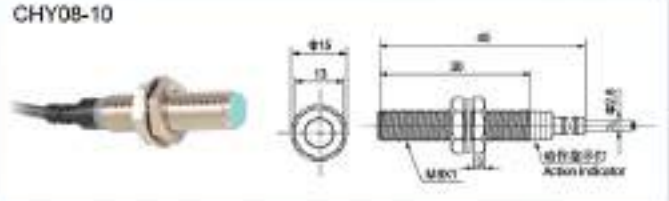
Hall Sensor

Specifications

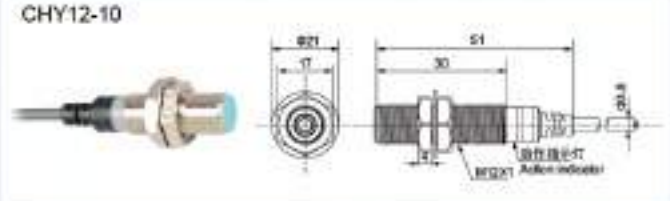
Model	CHY08-10NA CHY08-10PA CHY08-10NB CHY08-10PB	CHY12-10NA CHY12-10PA CHY12-10NB CHY12-10PB CHY12-10NC CHY12-10PC	CHY18-10NA CHY18-10PA CHY18-10NB CHY18-10PB CHY18-10NC CHY18-10PC
Sensing distance	10mm	10mm	10mm
Hysteresis	3-20%		
Consumption current	10mA 以下		
Power supply (Operating voltage)	6-36VDC		
Response frequency	1000Hz		
Residual voltage	Max. 1V		
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1500VAC 50/60Hz for 1minute		
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Ambient temperature	-15~+55℃ (No icing)		
Storage temperature	-15~+55℃ (No icing)		
Ambient humidity	35~95%RH (No condensation)		
Protection circuit	Surge protection circuit, Overcurrent protection circuit		
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	ϕ2.8,3P, 2m	ϕ3.8, 3P,4P 2m	ϕ4.8, 3P,4P 2m
	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25
Protection	IP67		

Appearance and Dimension

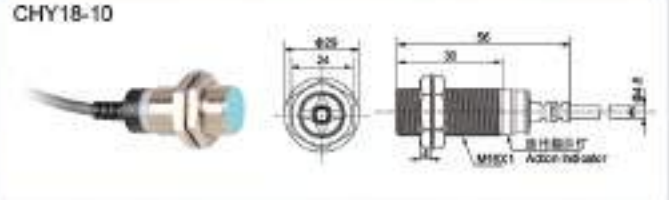
CHY08-10



CHY12-10



CHY18-10



Magnetic Sensor

Features

- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP67(IEC standard)

Model Number Structure

C X Y 12 □ – 10 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Item	Code	Description
① Company code	C	Company code
② Product name	X	Magnetic sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	12	12=M12
⑤ Product type	Without	High-end type
⑥ Detection distance	10	10=10mm
⑦ Output mode	K	AC 2 wires
	L	DC 2 wires
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

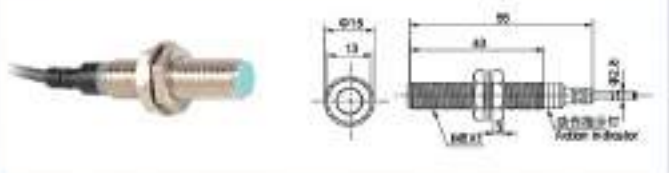
Magnetic Sensor

Specifications

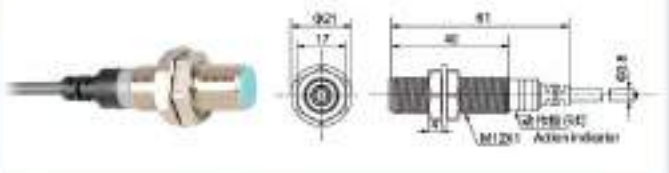
Model	CXY08-10LA CXY08-10KA	CXY12-10LA CXY12-10KA	CXY18-10LA CXY18-10KA	CXF18-10LA CXF18-10KA
Sensing distance	10mm	10mm	10mm	10mm
Hysteresis	3-20%			
Consumption current	10mA 以下			
Power supply (Operating voltage)	12-240VDC/AC			
Response frequency	100Hz			
Residual voltage	3V 以下 Max. 3V			
Affection by Temp.	Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output	Max. 200mA			
Insulation resistance	Min. 50MΩ (at 500VDC megger)			
Dielectric strength	1500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock	500m/s^2(approx. 50G) X, Y, Z directions for 3 times			
Indicator	Operation indicator(red LED)			
Ambient temperature	-15~+55℃ (No icing)			
Storage temperature	-15~+55℃ (No icing)			
Ambient humidity	35~95%RH (No condensation)			
Protection circuit	Surge protection circuit			
Material	Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)			
Cable	ϕ2.8, 2P, 2m	ϕ3.8, 2P, 2m	ϕ4.8, 2P, 2m	
	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
Protection	IP67			

Appearance and Dimension

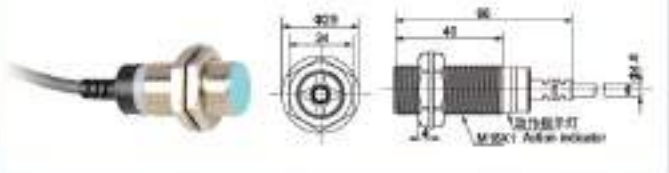
CXY08-10



CXY12-10



CXY18-10



Photoelectric Sensor

Features

- Dark grey mark for standard type
- Blue green mark for high-end type

- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

Rice white

Dark grey

Model Number Structure

C G Y 18 □ – R 2 J C □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Item	Code	Description
① Company code	C	Company code
② Product name	G	Photoelectric sensor
③ Shape of shell	Y	Cylinder-shaped
④ Dimension code	18	18=M18
⑤ Product type	Without	Without =High-end type（Dark grey）
	E	E=Standard type（Rice white）
⑥ Installation form	D	Diffuse-reflective type
	R	Retro-reflective type
	T	Through-bethod type
⑦ Detection distance	2	2=2m
⑧ Output mode	K	AC 2wires
	P	PNP 3wires
	N	NPN 3wires
	J	Relay
⑨ Output state	A	NO
	B	NC
	C	NO+NC
⑩ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Note: Shell nuts can be customized nickel plated brass material, product model plus (-B), example: CGY18-R2JC-B.

Specifications

Diffuse-reflective type

Model	High-end type	CGY12-D05NA CGY12-D05NB CGY12-D05PA CGY12-D05PB	CGY12-D10NA CGY12-D10NB CGY12-D10PA CGY12-D10PB	CGY18-D10NA CGY18-D10NB CGY18-D10NC CGY18-D10PA CGY18-D10PB CGY18-D10PC CGY18-D10KA CGY18-D10KB	CGY18-D30NA CGY18-D30NB CGY18-D30NC CGY18-D30PA CGY18-D30PB CGY18-D30PC CGY18-D30KA CGY18-D30KB	CGY30-D50NA CGY30-D50NB CGY30-D50NC CGY30-D50PA CGY30-D50PB CGY30-D50PC CGY30-D50KA CGY30-D50KB	CGY30-D70NA CGY30-D70NB CGY30-D70NC CGY30-D70PA CGY30-D70PB CGY30-D70PC CGY30-D70KA CGY30-D70KB
	Standard type	CGY12E-D05NA CGY12E-D05NB CGY12E-D05PA CGY12E-D05PB	CGY12E-D10NA CGY12E-D10NB CGY12E-D10PA CGY12E-D10PB	CGY18E-D10NA CGY18E-D10NB CGY18E-D10NC CGY18E-D10PA CGY18E-D10PB CGY18E-D10PC CGY18E-D10KA CGY18E-D10KB	CGY18E-D30NA CGY18E-D30NB CGY18E-D30NC CGY18E-D30PA CGY18E-D30PB CGY18E-D30PC CGY18E-D30KA CGY18E-D30KB	CGY30E-D50NA CGY30E-D50NB CGY30E-D50NC CGY30E-D50PA CGY30E-D50PB CGY30E-D50PC CGY30E-D50KA CGY30E-D50KB	CGY30E-D70NA CGY30E-D70NB CGY30E-D70NC CGY30E-D70PA CGY30E-D70PB CGY30E-D70PC CGY30E-D70KA CGY30E-D70KB
Sensing distance		5cm	10cm (可调 Adjustable)	10cm	30cm (可调 Adjustable)	50cm	70cm (可调 Adjustable)
Hysteresis		3-20%					
Light source		Infrared LED (880nm)					
Consumption current		25mA 以下					
Power supply (Operating voltage)		10-30VDC / 90-250VAC					
Response time		< 8.2ms					
Residual voltage		DC Max. 1V / AC Max. 10V					
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃					
Control output		Max. 200mA					
Insulation resistance		Min. 50MΩ(at 500VDC megger)					
Dielectric strength		1500VAC 50/60Hz for 1minute					
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours					
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times					
Indicator		Operation indicator(red LED)					
Ambient temperature		-15~+55℃ (No icing)					
Storage temperature		-15~+55℃ (No icing)					
Ambient humidity		35~95%RH (No condensation)					
Protection circuit		浪涌、过流 Surge protection circuit, Overcurrent protection circuit					
Material		Case/Nut: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)					
Cable	High-end type	ϕ3.8, 3P, 2m		ϕ4.8, 2P,3P,4P 2m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25			
	Standard type	ϕ3.8, 3P, 1.5m		ϕ4.8, 2P,3P,4P 1.5m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25		(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25			
Protection		IP65					

Specifications

Retro-reflective type

Model	High-end type	CGY12-R1NA CGY12-R1NB CGY12-R1PA CGY12-R1PB	CGY18-R2NA CGY18-R2NB CGY18-R2NC CGY18-R2PA CGY18-R2PB CGY18-R2PC CGY18-R2KA CGY18-R2KB	CGY30-R4NA CGY30-R4NB CGY30-R4NC CGY30-R4PA CGY30-R4PB CGY30-R4PC CGY30-R4KA CGY30-R4KB
	Standard type	CGY12E-R1NA CGY12E-R1NB CGY12E-R1PA CGY12E-R1PB	CGY18E-R2NA CGY18E-R2NB CGY18E-R2NC CGY18E-R2PA CGY18E-R2PB CGY18E-R2PC CGY18E-R2KA CGY18E-R2KB	CGY30E-R4NA CGY30E-R4NB CGY30E-R4NC CGY30E-R4PA CGY30E-R4PB CGY30E-R4PC CGY30E-R4KA CGY30E-R4KB
Sensing distance		1m	2m	4m
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		25mA 以下		
Power supply (Operating voltage)		10-30VDC / 90-250VAC		
Response time		< 8.2ms		
Reflector		TD02		TD09
Residual voltage		DC Max. 1V / AC Max. 10V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		Max. 200mA		
Insulation resistance		Min. 50MΩ (at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit, Overcurrent protection circuit		
Material		Case/Nut: ABS, Washer: Plastic, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	ϕ3.8, 3P, 2m	ϕ4.8, 2P,3P,4P 2m	
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
	Standard type	ϕ3.8, 3P, 1.5m	ϕ4.8, 2P,3P,4P 1.5m	
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: ϕ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: ϕ1.25	
Protection		IP65		

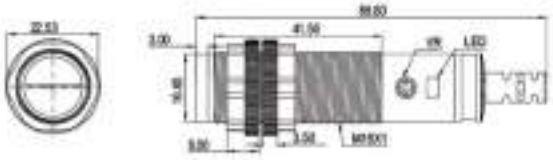
Specifications

Through-bethod type

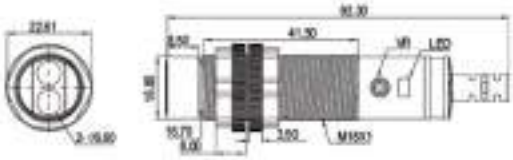
Model	High-end type	CGY12-T3NA CGY12-T3NB CGY12-T3PA CGY12-T3PB	CGY18-T5NA CGY18-T5NB CGY18-T5NC CGY18-T5PA CGY18-T5PB CGY18-T5PC CGY18-T5KA CGY18-T5KB	CGY18-T10NA CGY18-T10NB CGY18-T10NC CGY18-T10PA CGY18-T10PB CGY18-T10PC CGY18-T10KA CGY18-T10KB	CGY30-T10NA CGY30-T10NB CGY30-T10NC CGY30-T10PA CGY30-T10PB CGY30-T10PC CGY30-T10KA CGY30-T10KB	CGY30-T15NA CGY30-T15NB CGY30-T15NC CGY30-T15PA CGY30-T15PB CGY30-T15PC CGY30-T15KA CGY30-T15KB
	Standard type	CGY12E-T3NA CGY12E-T3NB CGY12E-T3PA CGY12E-T3PB	CGY18E-T5NA CGY18E-T5NB CGY18E-T5NC CGY18E-T5PA CGY18E-T5PB CGY18E-T5PC CGY18E-T5KA CGY18E-T5KB	CGY18E-T10NA CGY18E-T10NB CGY18E-T10NC CGY18E-T10PA CGY18E-T10PB CGY18E-T10PC CGY18E-T10KA CGY18E-T10KB	CGY30E-T10NA CGY30E-T10NB CGY30E-T10NC CGY30E-T10PA CGY30E-T10PB CGY30E-T10PC CGY30E-T10KA CGY30E-T10KB	CGY30E-T15NA CGY30E-T15NB CGY30E-T15NC CGY30E-T15PA CGY30E-T15PB CGY30E-T15PC CGY30E-T15KA CGY30E-T15KB
Sensing distance		3m	5m	10m	10m	15m
Hysteresis		3-20%				
光源 Light source		Infrared LED (880nm)				
Consumption current		40mA 以下				
Power supply (Operating voltage)		10-30VDC / 90-250VAC				
响应时间 Response time		< 8.2ms				
Residual voltage		DC Max. 1V / AC Max. 10V				
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃				
Control output		Max. 200mA				
Insulation resistance		Min. 50MΩ (at 500VDC megger)				
Dielectric strength		1500VAC 50/60Hz for 1minute				
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours				
Shock		500m/s^2 (approx. 50G) X, Y, Z directions for 3 times				
Indicator		Operation indicator(red LED)				
Ambient temperature		-15~+55℃ (No icing)				
Storage temperature		-15~+55℃ (No icing)				
Ambient humidity		35~95%RH (No condensation)				
Protection circuit		Surge protection circuit, Overcurrent protection circuit				
Material		Case/Nut: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)				
Cable	High-end type	φ3.8, 3P, 2m	φ4.8, 2P,3P,4P 2m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: φ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: φ1.25			
	Standard type	φ3.8, 3P, 1.5m	φ4.8, 2P,3P,4P 1.5m			
		(AWG22, Core diameter: 0.1mm, Number of cores: 25, Insulator diameter: φ1.25	(AWG22, Core diameter: 0.1mm, Number of cores: 30, Insulator diameter: φ1.25			
Protection		IP65				

Appearance and Dimension

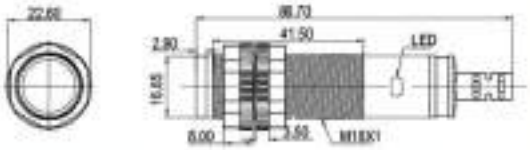
CGY18-D



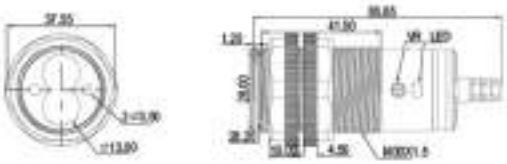
CGY18-R



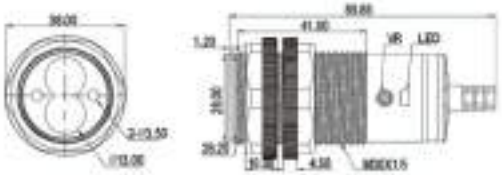
CGY18-T



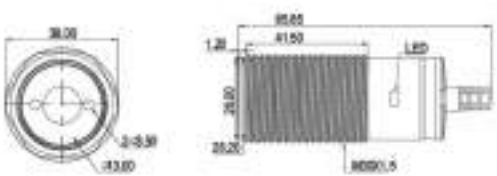
CGY30-D



CGY30-R

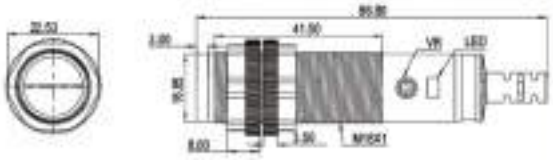


CGY30-T

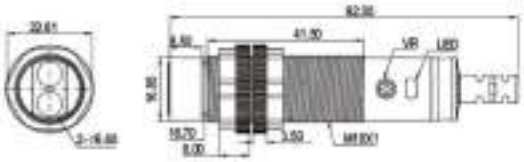


Appearance and Dimension

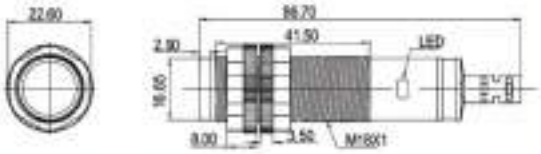
CGY18E-D



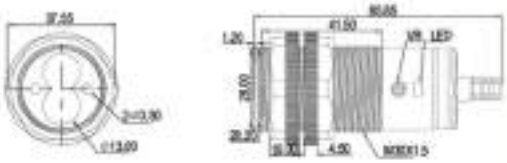
CGY18E-R



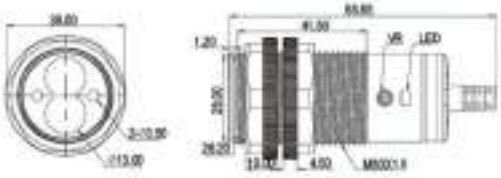
CGY18E-T



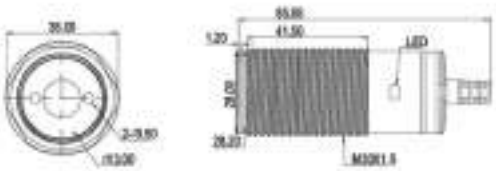
CGY30E-D



CGY30E-R



CGY30E-T



Photoelectric Sensor

Features

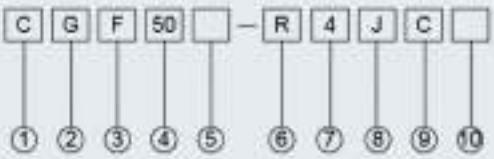
- Black mark for standard type
- Dark grey mark for high-end type

- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

■ Black

■ Dark grey

Model Number Structure



Item	Code	Description
① Company code	C	Company code
② Product name	G	Photoelectric sensor
③ Shape of shell	F	Square
④ Dimension code	50	50=Square 50
⑤ Product type	Without	Without =High-end type（Dark grey shell）
	E	E=Standard type（Black shell）
⑥ Installation form	D	Diffuse-reflective type
	R	Retro-reflective type
	T	Through-bethod type
⑦ Detection distance	4	4=4m
⑧ Output mode	K	AC 2wires
	P	PNP 3wires
	N	NPN 3wires
	J	Relay
⑨ Output state	A	NO
	B	NC
	C	NO+NC
⑩ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

Diffuse-reflective type

Model	High-end type		CGF50-D30JC	CGF70-D50JC
	Standard type		CGF50E-D30JC	CGF70E-D50JC
Sensing distance			30cm(可调)	50cm(可调)
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		25mA 以下		
Power supply (Operating voltage)		24-250VDC/AC(High-end type) 10-30VDC / 90-250VAC(Standard type)		
Response time		< 8.2ms		
Residual voltage		Max. 1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		3A		
Insulation resistance		Min. 50MΩ (at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	φ3.8, 3P,4P 2m	φ6, 5P, 2m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: φ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: φ1.25)	/
	Standard type	φ3.8, 3P,4P 1.5m	φ6, 5P, 1.5m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: φ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: φ1.25)	/
Protection		IP65		

Specifications

Diffuse-reflective type

Model	High-end type	CGF30-D30NA CGF30-D30NB CGF30-D30NC CGF30-D30PA CGF30-D30PB CGF30-D30PC	CGF50-D30NA CGF50-D30NB CGF50-D30NC CGF50-D30PA CGF50-D30PB CGF50-D30PC	CGF70-D50NA CGF70-D50NB CGF70-D50NC CGF70-D50PA CGF70-D50PB CGF70-D50PC
	Standard type	CGF30E-D30NA CGF30E-D30NB CGF30E-D30NC CGF30E-D30PA CGF30E-D30PB CGF30E-D30PC	CGF50E-D30NA CGF50E-D30NB CGF50E-D30NC CGF50E-D30PA CGF50E-D30PB CGF50E-D30PC	CGF70E-D50NA CGF70E-D50NB CGF70E-D50NC CGF70E-D50PA CGF70E-D50PB CGF70E-D50PC
Sensing distance		30cm(Adjustable)		50cm(Adjustable)
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		25mA 以下		
Power supply (Operating voltage)		10-30VDC		
Response time		< 8.2ms		
Residual voltage		Max.1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		Max. 200mA		
Insulation resistance		Min. 50MΩ(at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit, Overcurrent protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	ϕ3.8, 3P,4P 2m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	ϕ6, 3P,4P, 2m (AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
	Standard type	ϕ3.8, 3P,4P 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	ϕ6, 3P,4P, 1.5m (AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
Protection		IP65		

Specifications

Retro-reflective type

Model	High-end type		CGF50-R4JC	CGF70-R5JC
	Standard type		CGF50E-R4JC	CGF70E-R5JC
Sensing distance			4m	5m
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		25mA 以下		
Power supply (Operating voltage)		24-250VDC/AC(High-end type) 10-30VDC / 90-250VAC(Standard type)		
Response time		< 8.2ms		
Reflector		TD08		
Residual voltage		Max. 1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		3A		
Insulation resistance		Min. 50MΩ (at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	ϕ3.8, 3P,4P 2m	ϕ6, 5P, 2m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
	Standard type	ϕ3.8, 3P,4P 1.5m	ϕ6, 5P, 1.5m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
Protection		IP65		

Specifications

Retro-reflective type

Model	High-end type	CGF30-R1NA CGF30-R1NB CGF30-R1NC CGF30-R1PA CGF30-R1PB CGF30-R1PC	CGF50-R4NA CGF50-R4NB CGF50-R4NC CGF50-R4PA CGF50-R4PB CGF50-R4PC	CGF70-R5NA CGF70-R5NB CGF70-R5NC CGF70-R5PA CGF70-R5PB CGF70-R5PC
	Standard type	CGF30E-R1NA CGF30E-R1NB CGF30E-R1NC CGF30E-R1PA CGF30E-R1PB CGF30E-R1PC	CGF50E-R4NA CGF50E-R4NB CGF50E-R4NC CGF50E-R4PA CGF50E-R4PB CGF50E-R4PC	CGF70E-R5NA CGF70E-R5NB CGF70E-R5NC CGF70E-R5PA CGF70E-R5PB CGF70E-R5PC
Sensing distance		1m	4m	5m
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		25mA 以下		
Power supply (Operating voltage)		10-30VDC		
Response time		< 8.2ms		
Reflector	High-end type	TD08		
	Standard type	TD09		TD05
Residual voltage		Max. 1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		Max. 200mA		
Insulation resistance		Min. 50MΩ (at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit, Overcurrent protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	ϕ3.8, 3P,4P 2m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	ϕ6, 3P,4P, 2m (AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
	Standard type	ϕ3.8, 3P,4P 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	ϕ6, 3P,4P, 1.5m (AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
Protection		IP65		

Specifications

Through-bethod type

Model	High-end type		CGF50-T10JC	CGF70-T15JC
	Standard type		CGF50E-T10JC	CGF70E-T15JC
Sensing distance			10m	15m
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		50mA 以下		
Power supply (Operating voltage)		24-250VDC/AC(High-end type) 10-30VDC / 90-250VAC(Standard type)		
Response time		< 8.2ms		
Residual voltage		Max. 1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		3A		
Insulation resistance		Min. 50MΩ(at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	ϕ3.8, 3P,4P 2m	ϕ6, 5P, 2m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
	Standard type	ϕ3.8, 3P,4P 1.5m	ϕ6, 5P, 1.5m	/
		(AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25)	(AWG22, Core diameter: 0.1mm, Number of cores: 22, Insulator diameter: ϕ1.25	/
Protection		IP65		

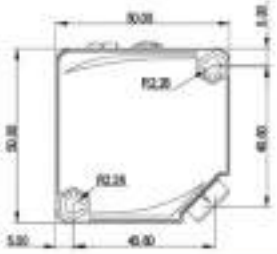
Specifications

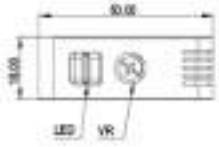
Through-bethod type

Model	High-end type	CGF30-T5NA CGF30-T5NB CGF30-T5NC CGF30-T5PA CGF30-T5PB CGF30-T5PC	CGF50-T10NA CGF50-T10NB CGF50-T10NC CGF50-T10PA CGF50-T10PB CGF50-T10PC	CGF70-T15NA CGF70-T15NB CGF70-T15NC CGF70-T15PA CGF70-T15PB CGF70-T15PC
	Standard type	CGF30E-T5NA CGF30E-T5NB CGF30E-T5NC CGF30E-T5PA CGF30E-T5PB CGF30E-T5PC	CGF50E-T10NA CGF50E-T10NB CGF50E-T10NC CGF50E-T10PA CGF50E-T10PB CGF50E-T10PC	CGF70E-T15NA CGF70E-T15NB CGF70E-T15NC CGF70E-T15PA CGF70E-T15PB CGF70E-T15PC
Sensing distance		5m	10m	15m
Hysteresis		3-20%		
Light source		Infrared LED (880nm)		
Consumption current		40mA 以下		
Power supply (Operating voltage)		10-30VDC		
Response time		< 8.2ms		
Residual voltage		Max. 1V		
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃		
Control output		Max. 200mA		
Insulation resistance		Min. 50MΩ (at 500VDC megger)		
Dielectric strength		1500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(approx. 50G) X, Y, Z directions for 3 times		
Indicator		Operation indicator(red LED)		
Ambient temperature		-15~+55℃ (No icing)		
Storage temperature		-15~+55℃ (No icing)		
Ambient humidity		35~95%RH (No condensation)		
Protection circuit		Surge protection circuit, Overcurrent protection circuit		
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)		
Cable	High-end type	φ3.8, 3P,4P 2m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: φ1.25)	φ6, 2P,3P,4P, 2m (AWG22, Core diameter: 0.1mm, Number of cores:22, Insulator diameter: φ1.25	/ /
	Standard type	φ3.8, 3P,4P 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: φ1.25)	φ6, 2P,3P,4P, 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:22, Insulator diameter: φ1.25	/ /
Protection		IP65		

Appearance and Dimension

CGF50-D





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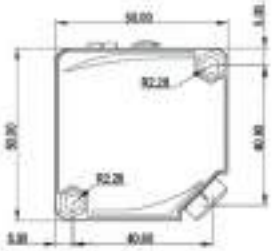
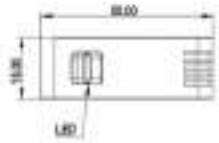
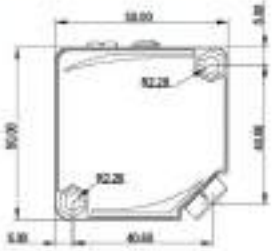
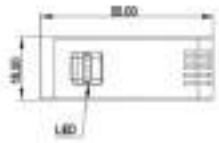




CGF50-T





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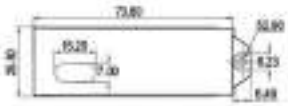

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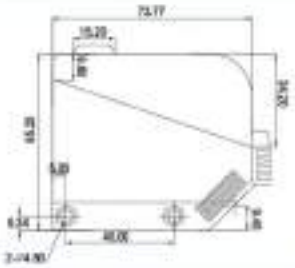

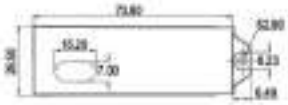

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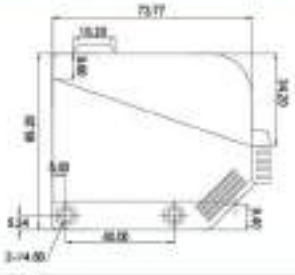
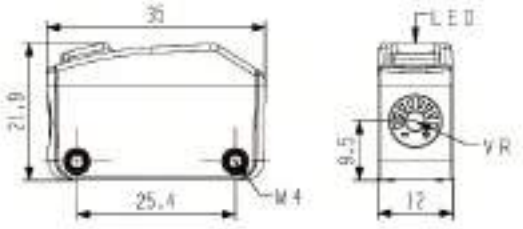
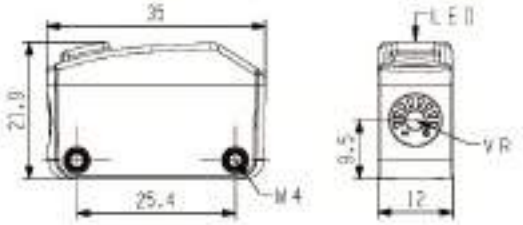


Appearance and Dimension

CGF30E-D



CGF30E-R



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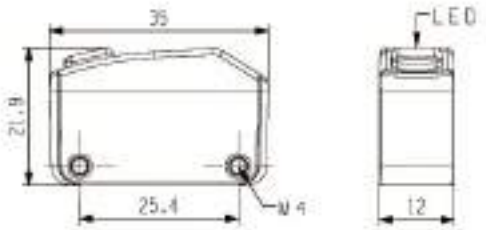

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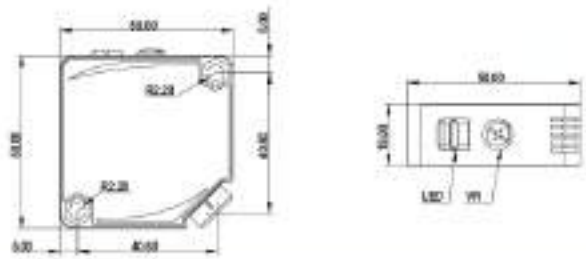
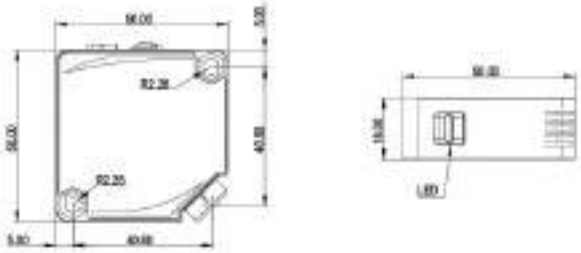


CGF50E-R



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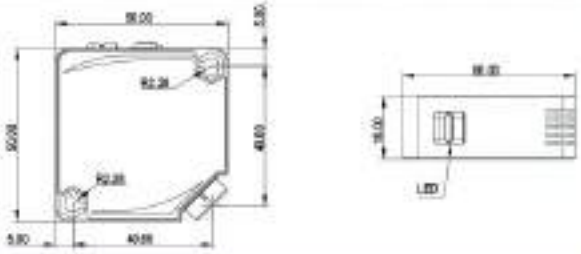
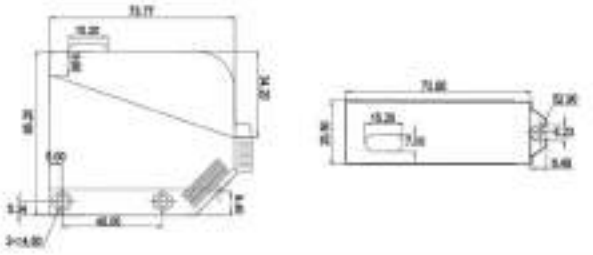


Appearance and Dimension

CGF70E-D



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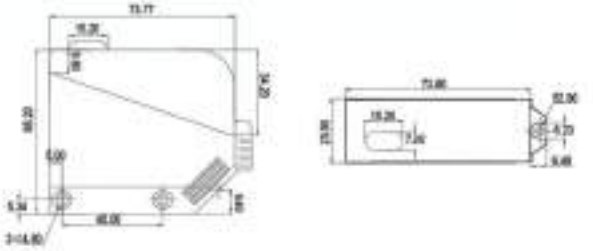
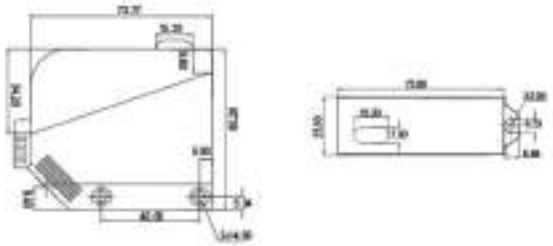


CGF70E-T



Photoelectric Sensor

Features

- Black mark for standard type
- Dark grey mark for high-end type

- Exclusively designed IC for improving anti-jamming capability
- Inside surge protection, reverse polarity protection
- Long use-life cycle and high reliability, easy install, enconomic price
- Red LED status indication, easy to confirm work situation
- Protection structure IP65(IEC standard)

■ Black

■ Dark grey

Model Number Structure

C G U 07 □ – 07 N A □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

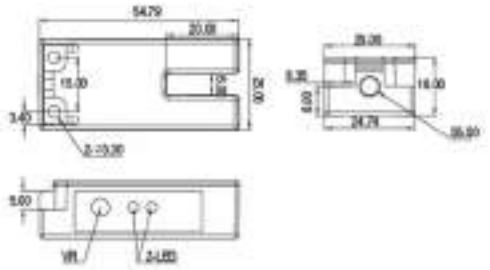
Item	Code	Description
① Company code	C	Company code
② Product name	G	Photoelectric sensor
③ Shape of shell	U	U type
④ Dimension code	07	7mm Groove width 7mm
⑤ Product type	Without	Without =High-end type（Dark grey shell）
	E	E = Standard type（Black shell）
⑥ Detection distance	07	7=7mm
⑦ Output mode	K	AC 2wires
	P	PNP 3wires
	N	NPN 3wires
	J	Relay
⑧ Output state	A	NO
	B	NC
	C	NO+NC
⑨ Connection	Without	Without: Lead wire
	T	Plug-in
	R	Wiring leads Plug-in

Specifications

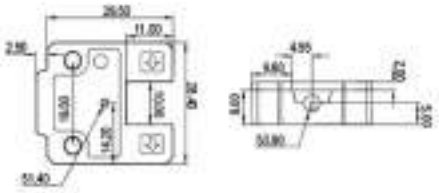
Model	High-end type	CGU07-07NA CGU07-07NB CGU07-07NC CGU07-07PA CGU07-07PB CGU07-07PC	CGU10-10NA CGU10-10NB CGU10-10PA CGU10-10PB	CGU30-30NA CGU30-30NB CGU30-30NC CGU30-30PA CGU30-30PB CGU30-30PC	CGU50-50NA CGU50-50NB CGU50-50NC CGU50-50PA CGU50-50PB CGU50-50PC
	Standard type	CGU07E-07NA CGU07E-07NB CGU07E-07NC CGU07E-07PA CGU07E-07PB CGU07E-07PC	CGU10E-10NA CGU10E-10NB CGU10E-10PA CGU10E-10PB	CGU30E-30NA CGU30E-30NB CGU30E-30NC CGU30E-30PA CGU30E-30PB CGU30E-30PC	CGU50E-50NA CGU50E-50NB CGU50E-50NC CGU50E-50PA CGU50E-50PB CGU50E-50PC
Sensing distance		7mm	10mm	30mm	50mm
Light source		Infrared LED (Modulation)			
Consumption current		15mA 以下			
Power supply (Operating voltage)		10-30VDC			
Response time		< 1ms			
Residual voltage		Max. 1V			
Affection by Temp.		Max. ± 10% for sensing distance at ambient temperature 20℃			
Control output		Max. 200mA			
Insulation resistance		Min. 50MΩ (at 500VDC megger)			
Dielectric strength		1500VAC 50/60Hz for 1minute			
Vibration		1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours			
Shock		500m/s^2(approx. 50G) X, Y, Z directions for 3 times			
Indicator		Operation indicator(red LED)			
Ambient temperature		-15~+55℃ (No icing)			
Storage temperature		-15~+55℃ (No icing)			
Ambient humidity		35~95%RH (No condensation)			
Protection circuit		Surge protection circuit, Overcurrent protection circuit			
Material		Case: ABS, Sensing surface: PMMA, Standard cable(Gray): Polyvinyl chloride(PVC), Oil resistant cable(Black): Oil resistant Polyvinyl chloride(PVC)			
Cable	High-end type	ϕ4.8, 3P,4P 2m (AWG22, Core diameter: 0.1mm, Number of cores:30, Insulator diameter: ϕ1.25	ϕ3.8, 3P, 2m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25	ϕ4.8, 3P,4P 2m (AWG22, Core diameter: 0.1mm, Number of cores:30, Insulator diameter: ϕ1.25	
	Standard type	ϕ4.8, 3P,4P 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:30, Insulator diameter: ϕ1.25	ϕ3.8, 3P, 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:25, Insulator diameter: ϕ1.25	ϕ4.8, 3P,4P 1.5m (AWG22, Core diameter: 0.1mm, Number of cores:30, Insulator diameter: ϕ1.25	
Protection		IP65			

Appearance and Dimension

CGU07-07



CGU10-10



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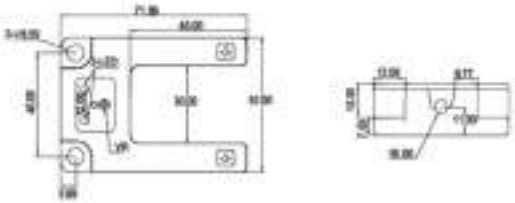

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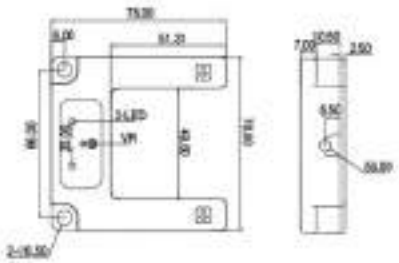
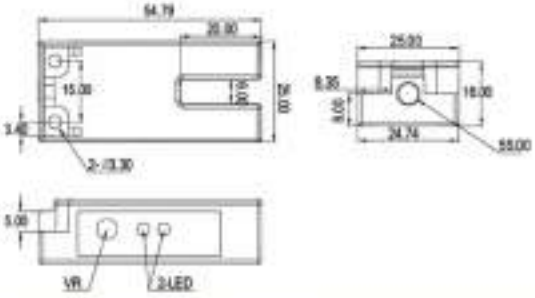
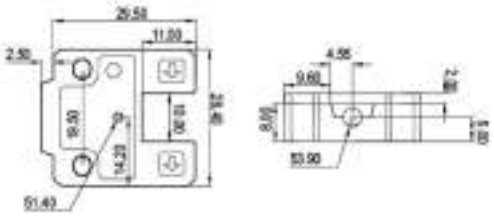


Appearance and Dimension

CGU07E-07



CGU10E-10



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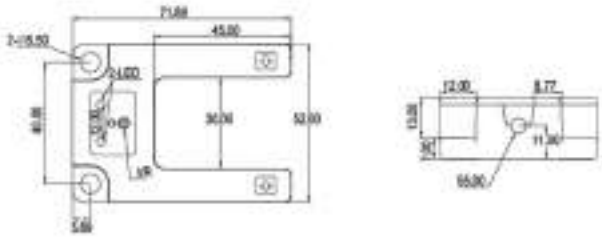

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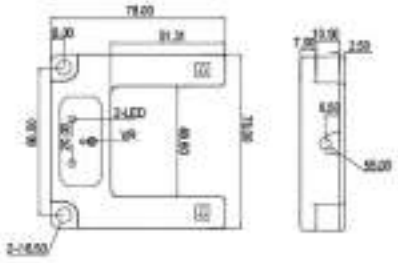
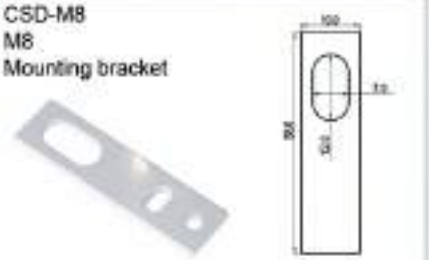
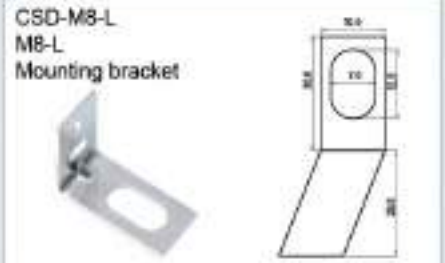


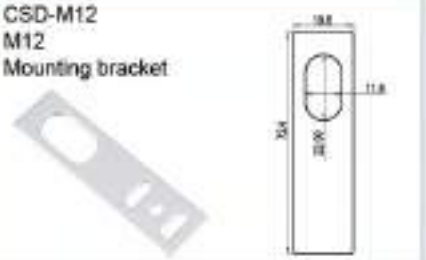
CSD-M8
M8
Mounting bracket



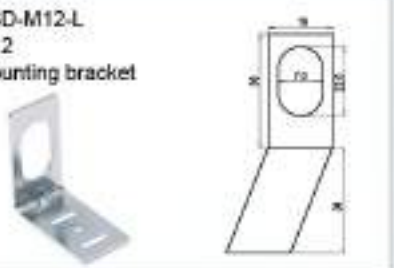
CSD-M8-L
M8-L
Mounting bracket



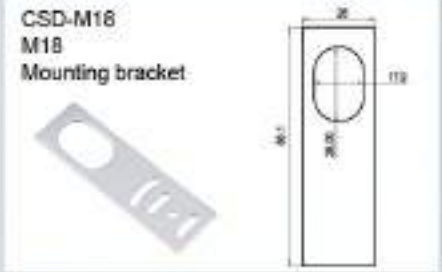
CSD-M12
M12
Mounting bracket



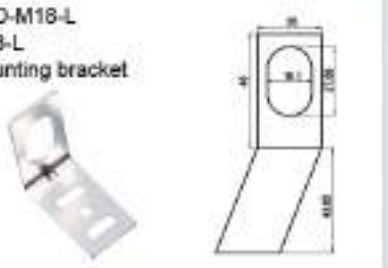
CSD-M12-L
M12
Mounting bracket



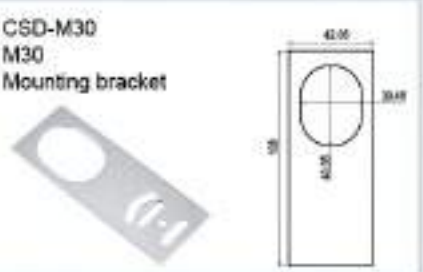
CSD-M18
M18
Mounting bracket



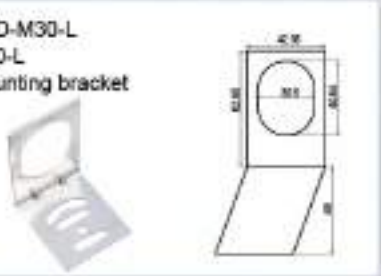
CSD-M18-L
M18-L
Mounting bracket



CSD-M30
M30
Mounting bracket



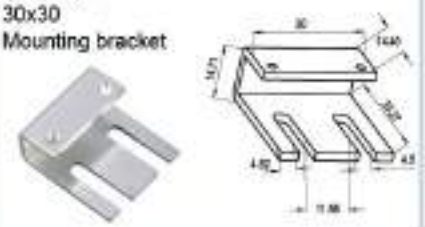
CSD-M30-L
M30-L
Mounting bracket



CSD-F18
18x18
Mounting bracket

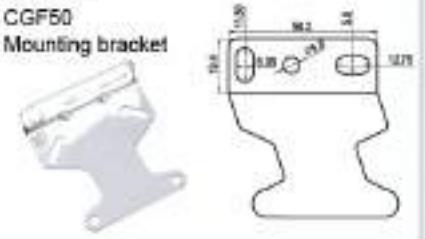
CSD-F25
25x25 安装架
Mounting bracket

CSD-F30
30x30
Mounting bracket

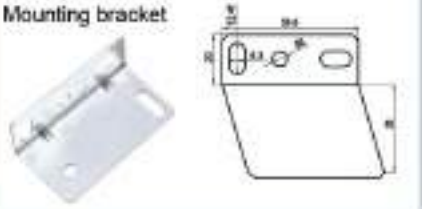


CSD-F40
40x40
Mounting bracket

CSD-G50
CGF50
Mounting bracket



CSD-G70
CGF70
Mounting bracket



TDE08
TD08
Mirror

TDE02
TD02
Mirror

CSD-PS1202/1203/1204
M12
Plug

CSD-PC1202/1203/1204
M12-L
Plug