

Proximity Sensors



- ◉ Non-contact position detection, wear-free and highly reliable.
- ◉ Highly sensitive and intense accuracy, durability up to 8 years.
- ◉ A full range of housing materials: stainless steel, nickel-copper alloy, plastic and Teflon coating.
- ◉ Covering a wide range of specifications and sizes
- ◉ IP67 protection design, excellent water and oil resistance.



Cylindrical Type (CK series)

- Detect metal, plastic and liquid, ect
- With reverse polarity, short circuit, surge and many other protection functions
- Metal and plastic housings are available

P.E-44



Corrosion Resistant Type (CWF series)

- Up to 20 turns sensitivity adjustment
- Teflon coatings ensure superior corrosion resistance
- Widely used in detection of metals, water, oil, glasses, plastic and water, etc

P.E-45



Flat Type (CQ series)

- 7mm of thickness only for saving space
- Enjoy stability; comparable to world famous brands
- Offer different kinds of sensing distance of 5mm, 6mm, 7mm and 10mm, etc

P.E-46



Liquid Level Detection (CE series)

- Free from influence of liquid color in pipeline
- Suitable for pipeline diameter from $\Phi 8\text{mm}$ to $\Phi 11\text{mm}$, $\Phi 12\text{mm}$ to $\Phi 26\text{mm}$
- With built-in amplifier to save installing space

P.E-48

Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

Vision

Code Readers

Vibration

Temperature

Accessories

Guidance

Inductive sensors

Standard distance

Extended distance

Long distance

Square

Mini square

Mini-cylindrical

Short-body

Ring-type

Metal face

Temperature

IP69K high protection

Analog output

DC 2 wires

Capacitive sensors

Cylindrical

Correction resistant type

Flat type

Level detection

Capacitive Sensors

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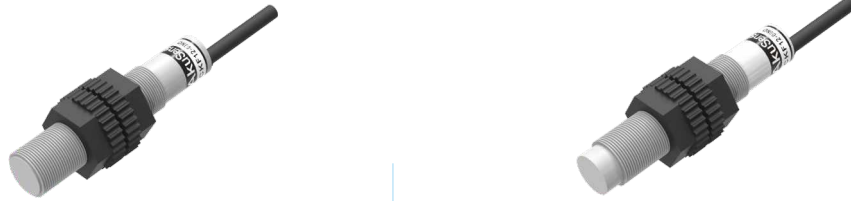
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No.	Classification	Explanation of model numbers
①	Series	E: Liquid Level Detection K: Plastic Shells Q: Flat Type W: Corrosion resistant
②	Mounting	F: Shielded N: Unshielded
③	Specifications	08: M8 12: M12 18: M18 30: M30
④	Sensing Distance	1.5: 1.5mm 02: 2mm 05: 5mm 08: 8mm
⑤	Output Type	N: NPN P: PNP H: DC 2–Wire
⑥	Output Status	O: Normally open C: Normally closed
⑦	Connection	Null: Pre–wired type E1: M8 3 pin connector E2: M12 4 pin connector

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Correction resistant type
Flat type
Level detection

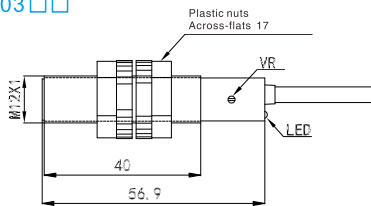


Appearance							
Mounting	Shielded			Unshielded			
Size	M12	M18	M30	M12	M18	M30	
Sensing distance	1~3mm adjustable	2~8mm adjustable	2~20mm adjustable	1~6mm adjustable	2~15mm adjustable	2~30mm adjustable	
Housing material	PBT						
Operating voltage	10~30V DC(Ripple < 10%)						
Voltage drop	< 2V						
Load Current, Max	150mA	300mA		150mA	300mA		
Current consumption	< 10mA						
Leakage current	<0.01mA						
Switch frequency	100Hz						
Repeat accuracy	< 5% (Sr)						
Hysteresis	< 15% (Sr)						
Sensing surface material	PBT						
Operating Temperature	-25℃~+75℃						
Circuit protection	Short circuit						
Degree of protection	IP67						
Model No.	NPN Normally open	CKF12-03NIO	CKF18-08NIO	CKF30-20NIO	CKN12-06NIO	CKN18-15NIO	CKN30-30NIO
	Others	NIO:NPN Normally open	NIC:NPN Normally closed	PIO:PNP Normally open	PIC:PNP Normally closed		

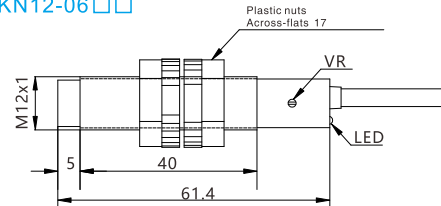
Dimensions-Plastic Shells (Unit:mm)

M12

CKF12-03□□

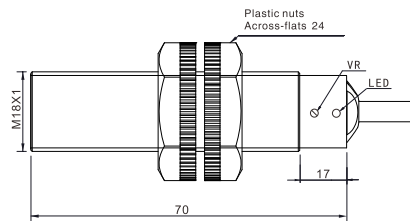


CKN12-06□□

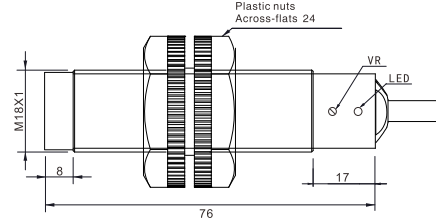


M18

CKF18-08□□

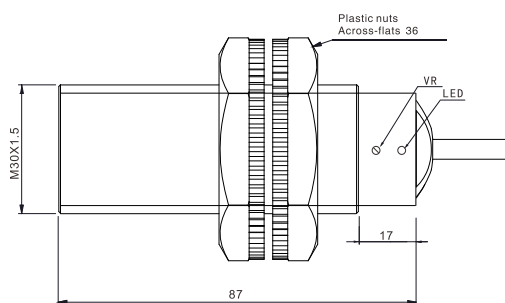


CKN18-15□□

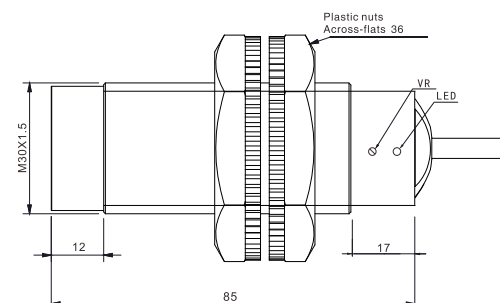


M30

CKF30-20□□



CKN30-30□□



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Level detection

Corrosion Resistance

Corrosion resistance

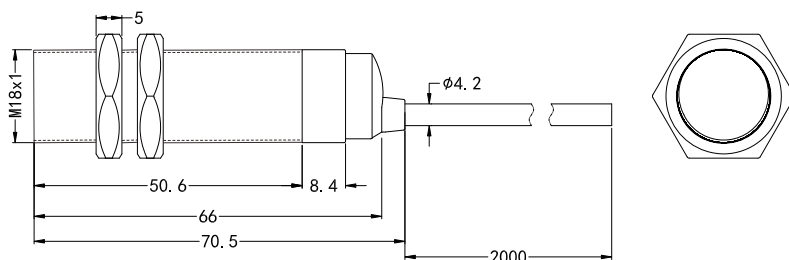


Appearance

Mounting	Shielded
Size	M18
Sensing distance	1~10mm adjustable
Detectable objects	Metal、Water、Oil、Glass、Plastic、Paper
Operating voltage	12~24V DC(Ripple < 10%)
Voltage drop	< 1.5V
Load Current, Max	100mA
Current consumption	< 22mA
Leakage current	< 1.1mA
Response time	≤ 14ms
Isolation impedance	≥ 20M Ω (500V DC)
Hysteresis	< 10% (Sr)
Insulation withstand voltage	AC 1000V 60Hz lasts 60 Sec
Operating temperature	-20℃~+60℃
Degree of protection	IP66
Connection	φ 4.2X2m 4 core cable
Weight	≈ 78g
Model No.	CWF18-10NP (NPN NO/NC PNP PC/PO)

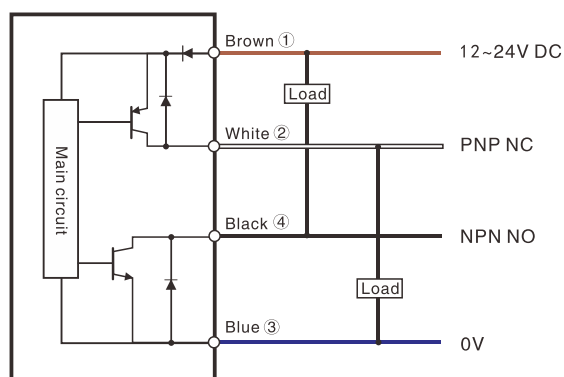
Dimensions

Unit: mm

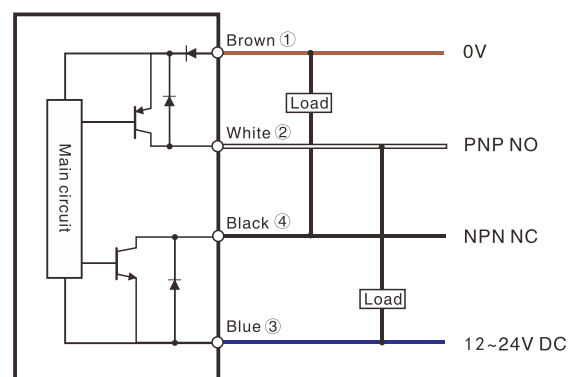


Circuit diagram

Method 1:



Method 2:

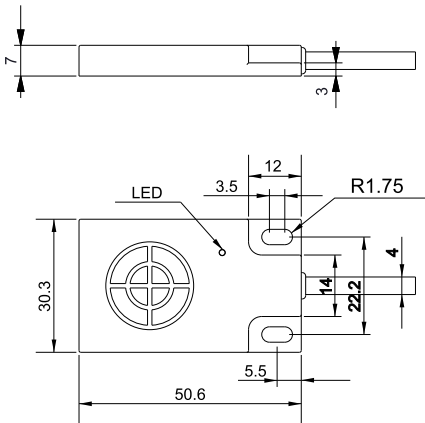




Appearance		
Sensing distance	5mm(adjustable)	10mm(adjustable)
Housing material	Plastic,black/blue	
Operating voltage	24V DC(Ripple < 10%)	
Voltage drop	≤1.5V@1L=50mA	
Output type	NPN or PNP – NO/NC	
Load Current, Max	≤50mA	
Current consumption	≤10mA	
Switch frequency	100Hz	
Repeat accuracy	< 5%	
Operating Temperature	0℃~+60℃	
Storage temperature	-30℃~+75℃	
Temperature drift	≤20%	
Circuit protection	Reverse polarity, Over voltage pulse protection, Short circuit	
Degree of protection	IP67	
Model No.	NPN Normally open	CQ07-05NNO
	Others	CQ07-10NNO
NNO: NPN Normally open NNC: NPN Normally closed PNO: PNP Normally open PNC: PNP Normally closed		

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Dimensions (Unit:mm)



Guidance

Inductive sensors

- Standard distance
- Extended distance
- Long distance
- Square
- Mini square
- Mini-cylindrical
- Short-body
- Ring-type
- Metal face
- Temperature
- IP69K high protection
- Analog output
- DC 2 wires

Capacitive sensors

- Cylindrical
- Correction resistanc type
- Flat type
- Level detection

Flat Type

CQ07 Series

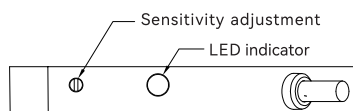
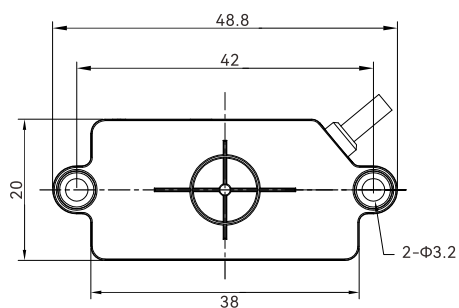


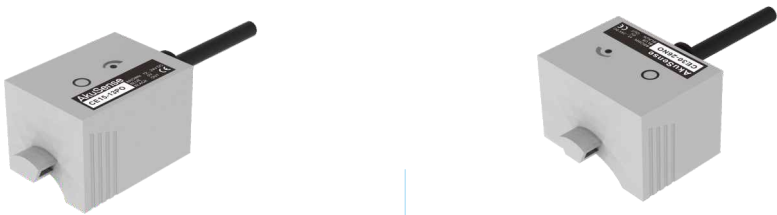
NEW!

Appearance

Sensing distance	8mm adjustable
Mouting	shield
Output Indicator	Red LED
Repetition accuracy	$\leq 1\% S, R$
Hysteresis	$\leq 10\%$
Switching frequency	35Hz
Operating Voltage	10~30V
Residual voltage	$\leq 1.5V$
Current consumption	$\leq 10mA$
Load current	$\leq 150mA$
Leakage current	$< 0.01mA$
Temperature drift	$\leq 20\%$
Circuit protection	Reverse polarity protection, surge protection, short circuit protection
Insulation resistance	$\geq 50M \Omega$
Voltage resistance	AC500V 50/60Hz 1min Between the charging section as a whole and the housing
Housing material	PBT
Protection level	IP66
Operating temperature	$-10 \sim 55^{\circ}C$
Storage temperature	$-20 \sim 75^{\circ}C$
Ambient Humidity	35% ~ 85%
Vibration resistance	10~55Hz Dual Amplitude 1.5mm, 2 hours each in XYZ direction
Impact resistance	10G, 3 times each in XYZ direction
Connection method	2M/3 core cable
Conformity	EIC60947-5-2
Model NO.	NPN normally open CQ07-08N□
	Others □:NPN Normally open □:NPN Normally closed □:PNP Normally open □:PNP Normally closed

Dimensions (Unit:mm)





Appearance

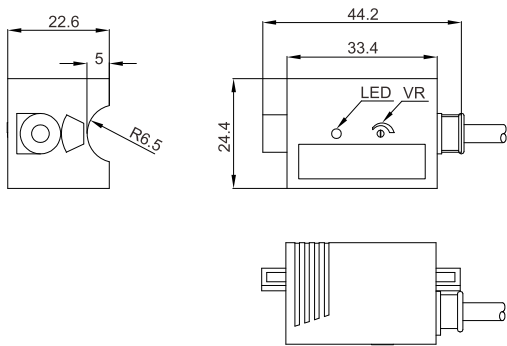
Mounting		Unshielded			
Operating voltage		10~30V DC			
Load Current, Max		150mA			
Voltage drop		< 2.5V			
Current consumption		< 15mA			
Hysteresis		3~20%			
Repeat accuracy		< 3%			
Switch frequency		20Hz			
Indicator		Yellow LED			
Pipeline	Material	Nonmetal			
	External diameter	φ 8~ φ 11		φ 12~ φ 26	
	Wall thickness	< 1mm			
Circuit protection		Reverse polarity/Short circuit			
Ambient temperature		-25℃~+75℃			
Degree of protection		IP67			
Housing material		PBT			
Connection		2mPVC Cable			
Model No.	NPN Normally open	CE15-13N□		CE30-26N□	
	Others	N□:NPN Normally open	N□:NPN Normally closed	P□:PNP Normally open	P□:PNP Normally closed

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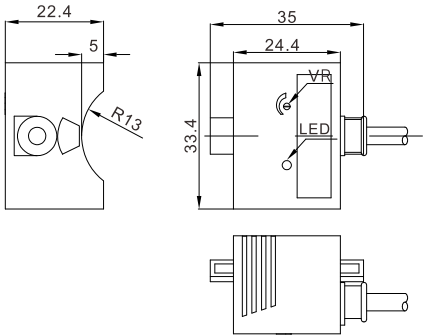
CE15

CE15-13□□



CE30

CE30-26□□



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