



**Features**

- Able to detect iron, metal, plastic, water, stone, wood etc.
- Long life cycle & high reliability
- Convenient to adjust the detecting distance by sensitivity adjustment potentiometer
- Application to control level and position
- Standard, cylindrical housing styles
- Excellent EMC performance



Model	ACR18-PN8	ACR18-NN8	ACR30-PN15	ACR30-NN15	ACR18-AN8	ACR30-AN15	
	ACR18-PC8	ACR18-NC8	ACR30-PC15	ACR30-NC15	ACR18-AC8	ACR30-AC15	
Function	PNP		NPN		AC		
Switching	NO						
	NC						
Diameter	M18		M30		M18	M30	
Sensing distance Sn	8mm		15mm		8mm	15mm	
Response frequency	200Hz				25Hz		
Mounting	Non flush mountable						
Hysteresis	1% to 10% of sensing distance						
Supply voltage	6~36VDC				90~250VAC		
No load current	max 12mA at 12VDC				5mA max		
Voltage drop	max 1VDC				max 7VAC		
Output current	300mA max				10~300mA max		
Temperature influence	-25°C ~ 65°C (±15% of sensing distance in the operating temperature range with rated voltage)						
Insulation resistance	50MΩ min. (at 500VDC)						
Dielectric strength	1000VAC, 50/60Hz for 1min				2000VAC, 50/60Hz for 1min		
Vibration resistance	Withstand: 10 to 55Hz, 1.5mm double amplitude for 2 hours each in X, Y, and Z directions						
Shock resistance	Withstand: 500m/s (about 50g) 10 times each in X, Y, and Z directions						
Indicator	Operating Indicator (Red Light)						
Ambient temperature	-25°C to 70°C (non-freezing condition)						
Storage	-30°C to 80°C (non-freezing condition)						
Ambient humidity	35% to 95%RH						
Protection circuit	Reverse polarity protection, Surge protection circuit, Overload & Short circuit protection				Surge protection circuit, Impulse protection		
Protection	as per IP65						
Connection	Pre wired 2mtr. PVC cable						
Mounting	Non-flush mountable						
Material	Housing	Brass-coated					
	Surface	Heat-resistance ABS					
Mounting	Non flush mountable						
Approval	CE						
Standard detecting target	Material	Wheat, Water, Steel		Wood	Glass	Oil, PVC	Ceramic
	Factor	1	1	0.8	0.6	0.4	0.3

**■ Sensitivity adjustment**

Capacitive proximity sensor operating distance normally is adjustable, to fit different sensing object, so please adjust the sensor as per actual requirement during installation, adjust method as below:

(a) Operation indicator, Operating distance adjuster, Power cable

(b) Stop when it is ON, Adjuster

(c) Stop when it is OFF, Adjuster

(d) ON, OFF, Set position of operating distance

(a) When adjuster rotates to the right, operating distance increases, rotate to the left to decrease, max. number of turns is 10.

(b) Under no operating status, rotate the adjuster to the right slowly, stop rotation when the sensor is ON.

(c) Then during sensing object approaching, rotate the adjuster to the left slowly, stop rotate when the sensor is OFF.

(d) Set the adjuster at the middle position of ON and OFF.

**■ Dimensions**

Models	a	b	c	d	e	f
ACR18	M18×1	78 ± 0.5	45	9	4	24
ACR30	M30 × 1.5	85 ± 0.5	45	12.5	4.5	36.2

**■ Connection**

PNP NO: BROWN (+), BLACK, BLUE (-)

PNP NC: BROWN (+), BLACK, BLUE (-)

NPN NO: BROWN (+), BLACK, BLUE (-)

NPN NC: BROWN (+), BLACK, BLUE (-)

NO: BROWN (LOAD), BLUE (90~250VAC)

NC: BROWN (LOAD), BLUE (90~250VAC)

**■ DC 3 Wire Type**

**PU-1Z**

**PNP Sensor**

1	2	3	4	5	6
NO	C	NC	NO	C	N
RELAY 1			RELAY 2		

Wiring: IN (BLACK), OV (BLUE), +12V (BROWN), 230VAC (L, N)

PNP O/P	-	+	NPN O/P	L	N
7	8	9	10	11	12

**NPN Sensor**

1	2	3	4	5	6
NO	C	NC	NO	C	N
RELAY 1			RELAY 2		

Wiring: OV (BLUE), +12V (BROWN), 230VAC (L, N)

O/P PNP	-	+	O/P NPN	L	N
7	8	9	10	11	12

**■ Model Classification**

Model	Output	Operation Mode	Sensing Range	Supply Voltage
ACR18-PN8	PNP	NO	8mm	6~36 VDC
ACR18-PC8		NC		
ACR18-NN8	NPN	NO		
ACR18-NC8		NC		
ACR30-PN15	PNP	NO	15mm	
ACR30-PC15		NC		
ACR30-NN15	NPN	NO		
ACR30-NC15		NC		
ACR18-AN8	AC	NO	8mm	90~250 VAC
ACR18-AC8		NC		
ACR30-AN15		NO	15mm	
ACR30-AC15		NC		

**■ Proper usage**

**◎ Load Connection**

AC 2 wire type (Incorrect): Sensor connected to AC power source.

AC 2 wire type (Correct): Sensor connected to a load between Brown and Blue wires, with 100-240VAC supply.