

# PROXIMITY SENSORS

## CPX SERIES

### OVERVIEW

Capacitive proximity sensors for detecting metal and nonmetal (glass, wood, water, oil, etc.)

IP-Rating : IP67



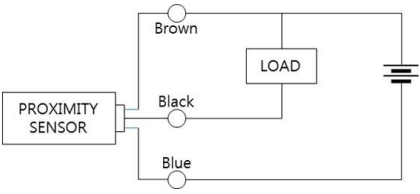
### CLASSIFICATION

CPX - D 18 - 08 E1 \_\_\_

Type	D	DC 3 - wire model
Diameter	18	Ø18mm
	30	Ø30mm
Sensing distance	08	8mm
	15	15mm
Control output	E1	NPN NO
	E2	NPN NC
Shield	N	Unshielded

### How to set sensing distance

- Using setting volume knob, set sensing distance
- Initial setting is 70% of maximum sensing distance
- Clockwise: sensing distance increases

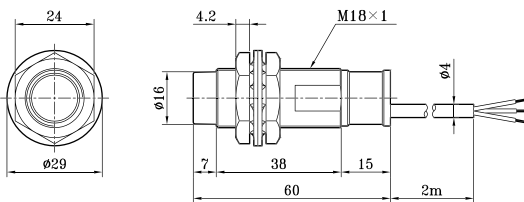
Control output	Timing chart	Wiring Diagram
NPN NO	<p>Sensing object Present (grey bar) / Not present (white bar)</p> <p>Control output (between black and brown) ON (grey bar) / OFF (white bar)</p> <p>Output voltage (between black and blue) HIGH (grey bar) / LOW (white bar)</p> <p>Operation indicator ON (grey bar) / OFF (white bar)</p>	
NPN NC	<p>Sensing object Present (grey bar) / Not present (white bar)</p> <p>Control output (between black and brown) ON (white bar) / OFF (grey bar)</p> <p>Output voltage (between black and blue) HIGH (white bar) / LOW (grey bar)</p> <p>Operation indicator ON (white bar) / OFF (grey bar)</p>	

## Specification

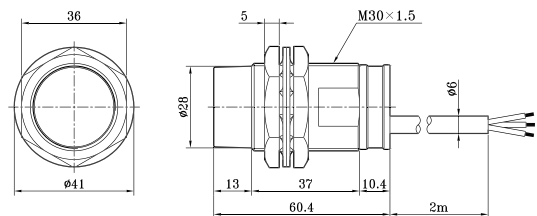
Diameter		Ø18	Ø30
Operating mode	NPN NO	CPX - D18 - 08E1N	CPX - D30 - 15E1N
	NPN NC	CPX - D18 - 08E2N	CPX - D30 - 15E2N
Sensing distance		8.0mm	15.0mm
Set distance		0~5.6mm	0~10.5mm
Differential travel		max. ± 20% of sensing distance	
Detectable object		conductor/dielectric substance	
Standard sensing object		Iron 50X50X1mm	
Response frequency		100Hz	
Rated operating voltage		12~24VDC	
Power supply voltage		10~30VDC	
Control output	Load current	max. 200mA	
Indicator		none	
Ambient temperature	operating	-25 ~+70	
	storage	-30 ~+80	
Ambient humidity		35~95%RH	
Insulation resistance		min. 50M (500VDC)	
Dielectric strength		1,500VAC(50/60Hz) for 1min	
Vibration resistance		10~55Hz double amplitude 1.5mm (at X, Y and Z axis) for 2hrs	
Shock resistance		50G	
Degree of protection		IP67	
Connection method		Pre-wired (2M)	
Materials	Case	Nylon glass	Brass
	Sensing surface	nylon glass	PBT

## Dimension

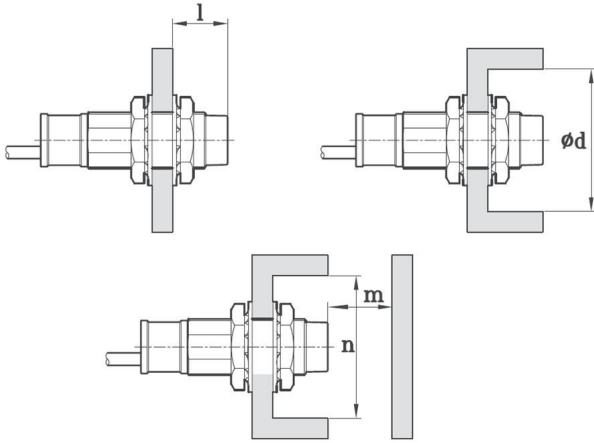
CPX - D18 - 08 E1N  
CPX - D18 - 08 E2N



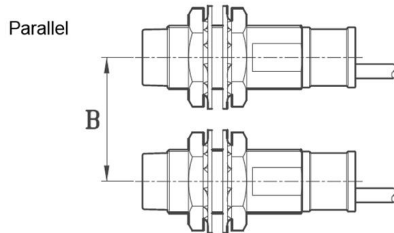
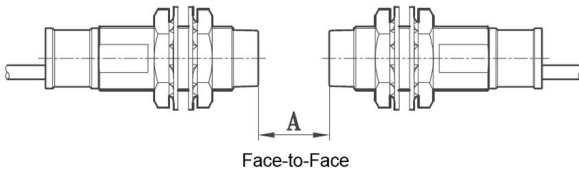
CPX - D30 - 15 E1N  
CPX - D30 - 15 E2N



Influence of Surroundings and mutual interference



Item	CPX - D18	CPX - D30
$l$	10	20
$\varnothing d$	54	90
$m$	24	45
$n$	54	90



Item	CPX - D18	CPX - D30
$A$	54	90
$B$	48	90