



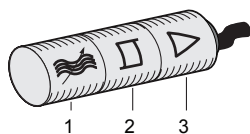
## Features

- Long-distance detection at up to 25 mm enables secure mounting
- Install at any angle, Indicator light is visible at 360°
- Chip integrated, stable and reliable performance
- Strain relief cable



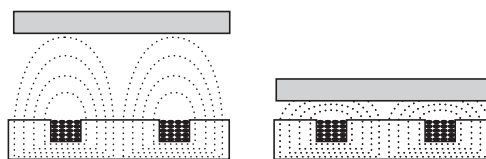
Model	BIRD8-PN2F	BIRD8-PN4N	BIRD12-PN4F	BIRD12-PN8N	BIRD18-PN8F	BIRD18-PN14N	BIRD30-PN15F	BIRD30-PN25N
	BIRD8-NN2F	BIRD8-NN4N	BIRD12-NN4F	BIRD12-NN8N	BIRD18-NN8F	BIRD18-NN14N	BIRD30-NN15F	BIRD30-NN25N
Function	PNP	PNP	PNP	PNP	PNP	PNP	PNP	PNP
	NPN	NPN	NPN	NPN	NPN	NPN	NPN	NPN
Switching	NO							
Sensing distance Sn	2mm	4mm	4mm	8mm	8mm	14mm	15mm	25mm
Response frequency	1kHz	800Hz	800Hz	500Hz	400Hz	200Hz	300Hz	150Hz
Mounting	Flush mountable	Non flush mountable	Flush mountable	Non flush mountable	Flush mountable	Non flush mountable	Flush mountable	Non flush mountable
Dia	φ8mm		φ12mm		φ18mm		φ30mm	
Standard detecting target	8×8×1mm (Iron)		12×12×1mm (Iron)		18×18×1mm (Iron)		30×30×1mm (Iron)	
Hysteresis	Within 1%-10% of sensing distance							
Supply voltage	10~30VDC							
No load current	max 12mA				max 10mA			
Voltage drop	max 1.5VDC							
Temperature influence	When at -25℃ ~ 70℃ sensing distance within ±15% of sensing distance at rated voltage							
Output current	200mA							
Insulation resistance	50MΩ min. (at 500VDC)							
Dielectric strength	1000VAC, 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	360° visible (yellow LED)							
Ambient temperature	-25℃ to 70℃ (non-freezing condition), Storage -40℃ to 85℃ (non-freezing condition)							
Ambient humidity	35% to 95%RH							
Protection circuit	Reverse polarity protection, Surge protection circuit, Overload & short circuit protection							
Protection	IP67							
Connection	Pre wired 2mtr. PVC cable							
Housing material	Brass with nickle coated, Sensing face & Indication window ABS heat resistance ABS							
Approval	CE							

## Principle of inductive detection



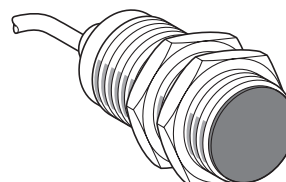
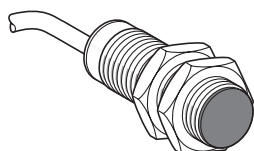
Composition of an inductive proximity sensor

An inductive proximity sensor is solely for the detection of metal objects. It basically comprises an oscillator whose windings constitute the sensing face. An alternating magnetic field is generated in front of these windings.



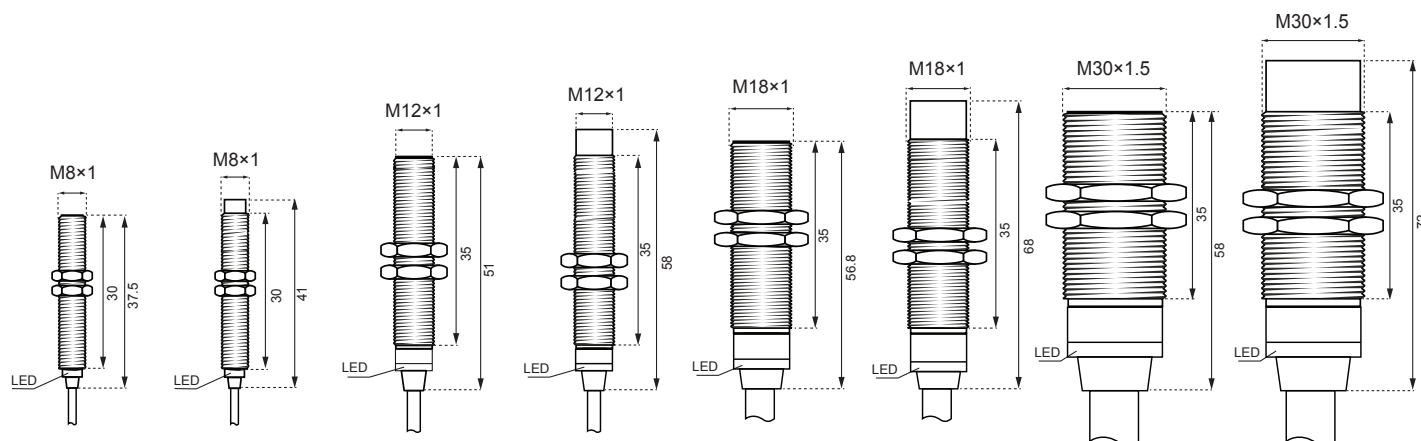
Detection of a metal object

When a metal object is placed within the magnetic field generated by the sensor, the resulting currents induced form an additional load and the oscillations cease. This causes the output driver to operate and depending on the sensor type, a normally open (NO) or normally closed (NC) output signal is produced.



## ■ Dimensions

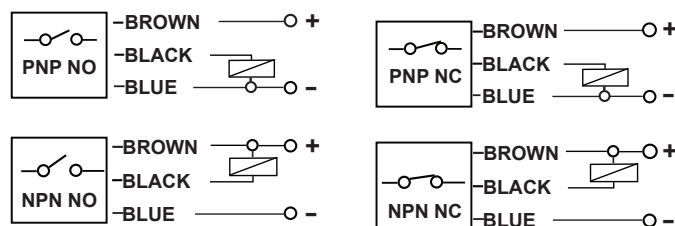
**BIRD8 Flush** **BIRD8 Non Flush** **BIRD12 Flush** **BIRD12 Non Flush** **BIRD18 Flush** **BIRD18 Non Flush** **BIRD30 Flush** **BIRD30 Non Flush**



## ■ Model Classification

Model	Dia	Output	Mounting	Sensing range	Other features
BIRD8-PN2F	M8	PNP	Flush	2mm	Supply Voltage 10~30 VDC
BIRD8-NN2F		NPN			
BIRD8-PN4N		PNP	Non Flush	4mm	
BIRD8-NN4N		NPN			
BIRD12-PN4F	M12	PNP	Flush	4mm	
BIRD12-NN4F		NPN			
BIRD12-PN8N		PNP	Non Flush	8mm	
BIRD12-NN8N		NPN			
BIRD18-PN8F	M18	PNP	Flush	8mm	Switching NO
BIRD18-NN8F		NPN			
BIRD18-PN14N		PNP	Non Flush	14mm	
BIRD18-NN14N		NPN			
BIRD30-PN15F	M30	PNP	Flush	15mm	
BIRD30-NN15F		NPN			
BIRD30-PN25N		PNP	Non Flush	25mm	
BIRD30-NN25N		NPN			

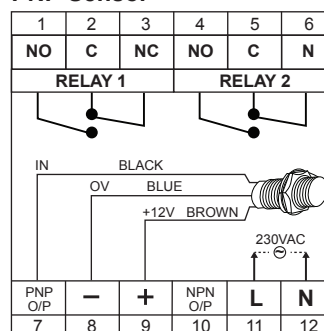
## ■ Connection



## ■ DC 3 Wire Type

**PU-1Z**

### PNP Sensor



### NPN Sensor

