

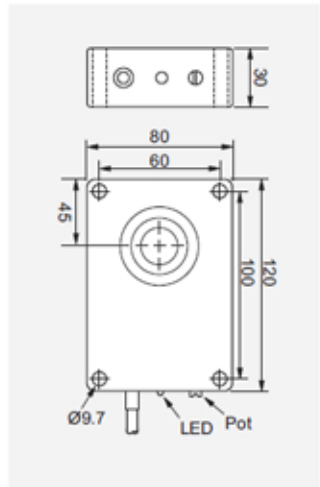
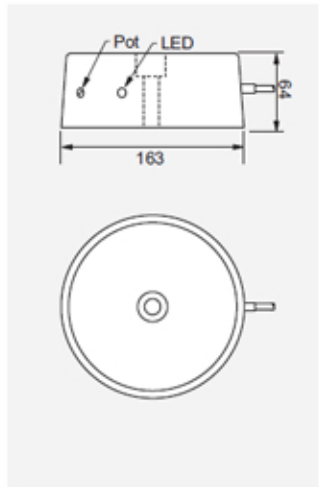
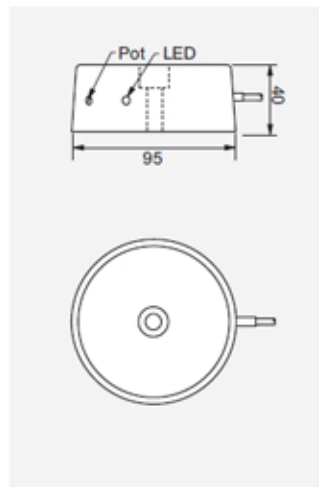


**Inductive Sensors**

DC Long Range  
 Pancake Style

# Long Range

Housing Size	Ø90	Ø153	120 x 80 x 30
Mounting	non-flush	non-flush	non-flush
Rated operating distance $S_n$	70mm	100mm	50mm



Ordering Code			
PNP Normally Open	BES-IKN-K-070-P1-S	BES-IKO-K-100-P1-S	BES-IKRD-K-050-P1-S
PNP Normally Closed			BES-IKRD-K-050-P1-O
NPN Normally Open	BES-IKN-K-070-P1-S	BES-IKO-K-100-N1-S	BES-IKRD-K-050-N1-S
NPN Normally Closed			BES-IKRD-K-050-N1-O

Sensing distance $S_n$	70mm	100mm	50mm
Operating distance with steel	0...56mm (adjustable)	0...81mm (adjustable)	0...40mm (adjustable)
Maximum switching frequency	80 Hz	100 Hz	100 Hz
Operating voltage	10-30 V DC	10-30 V DC	10-30 V DC
Supply voltage ripple	15% (peak to peak)	30% (peak to peak)	15% (peak to peak)
Load current capacity	≤ 200 mA	≤ 500 mA	≤ 200 mA
Protection against polarity reversal	yes	yes	yes
Short circuit protected	yes	yes	yes
Function display	LED	LED	LED
Output resistance	2.2K + Diode + LED	2.2K + Diode + LED	2.2K + Diode + LED
Ambient temperature range	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)	-25°C to 70°C (-13°F to 158°F)
Temperature drift of Switch Point	≤ 10% of $S_n$	≤ 10% of $S_n$	≤ 10% of $S_n$
Parallel Cap. to load permitted	≤ 1 µF @24 V DC	≤ 1 µF @24 V DC	≤ 1 µF @24 V DC
Residual Voltage (undamped)	≤ 0.8 V (10k load)	≤ 0.8 V (10k load)	≤ 0.8 V (10k load)
Voltage drop (damped)	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V
Voltage rise on switching	≥ 1 V/µ sec	≥ 1 V/µ sec	≥ 1 V/µ sec
Switching hysteresis	≤ 15% Sensing distance	≤ 15% Sensing distance	≤ 15% Sensing distance
Repeatability	≤ 5% Sensing distance	≤ 5% Sensing distance	≤ 5% Sensing distance
Current consumption	≤ 25 mA damped / ≤ 12 mA undamped	≤ 25 mA damped / ≤ 12 mA undamped	≤ 25 mA damped / ≤ 12 mA undamped
Housing material	Plastic	Plastic	Plastic
Connection	AWG 22, 2 meter PVC cable	AWG 22, 2 meter PVC cable	AWG 22, 2 meter PVC cable
Protection class	IP 65	IP 65	IP 65

