

# Inductive Sensors with Relay Output

- Switch load currents to 6 amps!
- SPDT output
- Passive or “active” relays
- DC & AC/DC supply options
- Extended temperature and mechanical shock ratings



See pages 865-872 for accessories



## DC Technical Specifications

SUPPLY VOLTAGE	10-30 VDC
SWITCHING POWER	≤ 180 W
SWITCHING CURRENT	≤ 6 A
SWITCHING VOLTAGE (RESISTIVE)	≤ 28 VDC
OUTPUT	SPDT relay
RELAY LIFE	<i>NO LOAD</i> 2 x 10 <sup>7</sup> operations <i>FULL LOAD</i> 1 x 10 <sup>5</sup> operations
HYSTERESIS	3-15% (5% typical)
SWITCHING FREQUENCY	5 Hz
SHORT CIRCUIT AND OVERLOAD PROTECTION	No
REVERSE POLARITY PROTECTED	No
LED INDICATION	See dimension drawings
STANDARDS	EN 60947-5-2
ENVIRONMENTAL PROTECTION	IP68
AMBIENT TEMPERATURE	-40 °F to +158 °F (-40 °C to +70 °C)
APPROVALS	CE, UL <sup>us</sup> , SP <sup>us</sup>

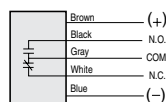
## Wiring Diagrams

### DC

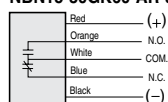


#### Cable Connection

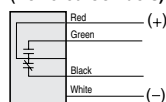
NBB10-30GM60-AR-Y94348



NBB10-30GK60-AR-3M  
NBN15-30GK60-AR-3M



NBB10-30GM60-AAR-Y906216  
(Powered Contacts)

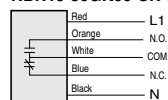


### AC/DC



#### Cable Connection

NBN15-30GK60-UR-3M



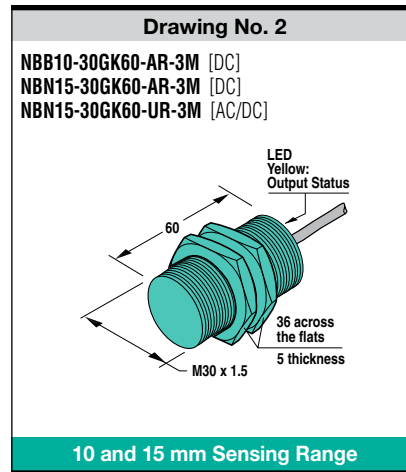
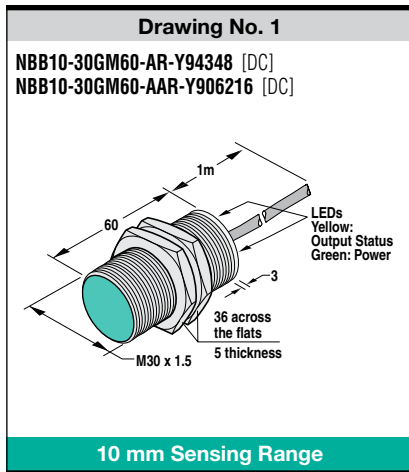
## AC/DC Technical Specifications

SUPPLY VOLTAGE	20-132 VAC/DC
SWITCHING POWER (MAX.)	180 W
SWITCHING CURRENT (MAX.)	6 A
SWITCHING VOLTAGE (MAX.)	28 VDC/ 250 VAC
OUTPUT	SPDT relay
RELAY LIFE	<i>NO LOAD</i> 2 x 10 <sup>7</sup> operations <i>FULL LOAD</i> 1 x 10 <sup>5</sup> operations
HYSTERESIS	3-15% (5% typical)
SWITCHING FREQUENCY	5 Hz
SHORT CIRCUIT AND OVERLOAD PROTECTION	No
REVERSE POLARITY PROTECTED	No
LED INDICATION	See dimension drawings
STANDARDS	EN 60947-5-2
ENVIRONMENTAL PROTECTION	IP68
AMBIENT TEMPERATURE	-40 °F to +158 °F (-40 °C to +70 °C)
APPROVALS	CE, UL <sup>us</sup>

DC Models									
Dia. (mm)	Model Number	Range (mm)	Mounting	Electrical Output	Sensing Face Material	Barrel Material	Cable Jacket/Size	Dwg. No.	
30	NBB10-30GM60-AR-Y94348	10	Flush	SPDT relay (DC)	PBT	Ni-Brass	PUR/#18 AWG	1	
	NBB10-30GM60-AAR-Y906216	10	Flush	SPDT relay (DC)	PBT	Ni-Brass	TPE/#18 AWG	1	
	NBB10-30GK60-AR-3M	10	Flush	SPDT relay (DC)	Thermoplastic Polyester	Thermoplastic Polyester	PVC/#18 AWG	2	
	NBN15-30GK60-AR-3M	15	Nonflush	SPDT relay (DC)	Thermoplastic Polyester	Thermoplastic Polyester	PVC/#18 AWG	2	

AC/DC Models									
Dia. (mm)	Model Number	Range (mm)	Mounting	Electrical Output	Sensing Face Material	Barrel Material	Cable Jacket/Size	Dwg. No.	
30	NBN15-30GK60-UR-3M	15	Nonflush	SPDT relay (AC/DC)	Thermoplastic Polyester	Thermoplastic Polyester	PVC/#18 AWG	2	

Note: Some models available with 1-meter cable (-1M).

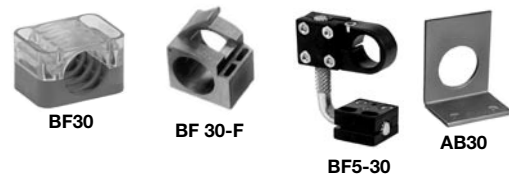


**Note:**

If the self-contained relay output sensors shown do not suit your needs, the KCD2-R modules convert any standard 3-wire NPN or PNP output to a 2 amp, SPDT relay output.



**Recommended Accessories**



**Mounting Brackets**

Model	Description
BF30	30 mm clamp bracket
BF 30-F	30 mm snap lever bracket
BF5-30	5-30 mm universal bracket
AB30	30 mm right angle bracket

See pages 865-872 for complete accessory listing.