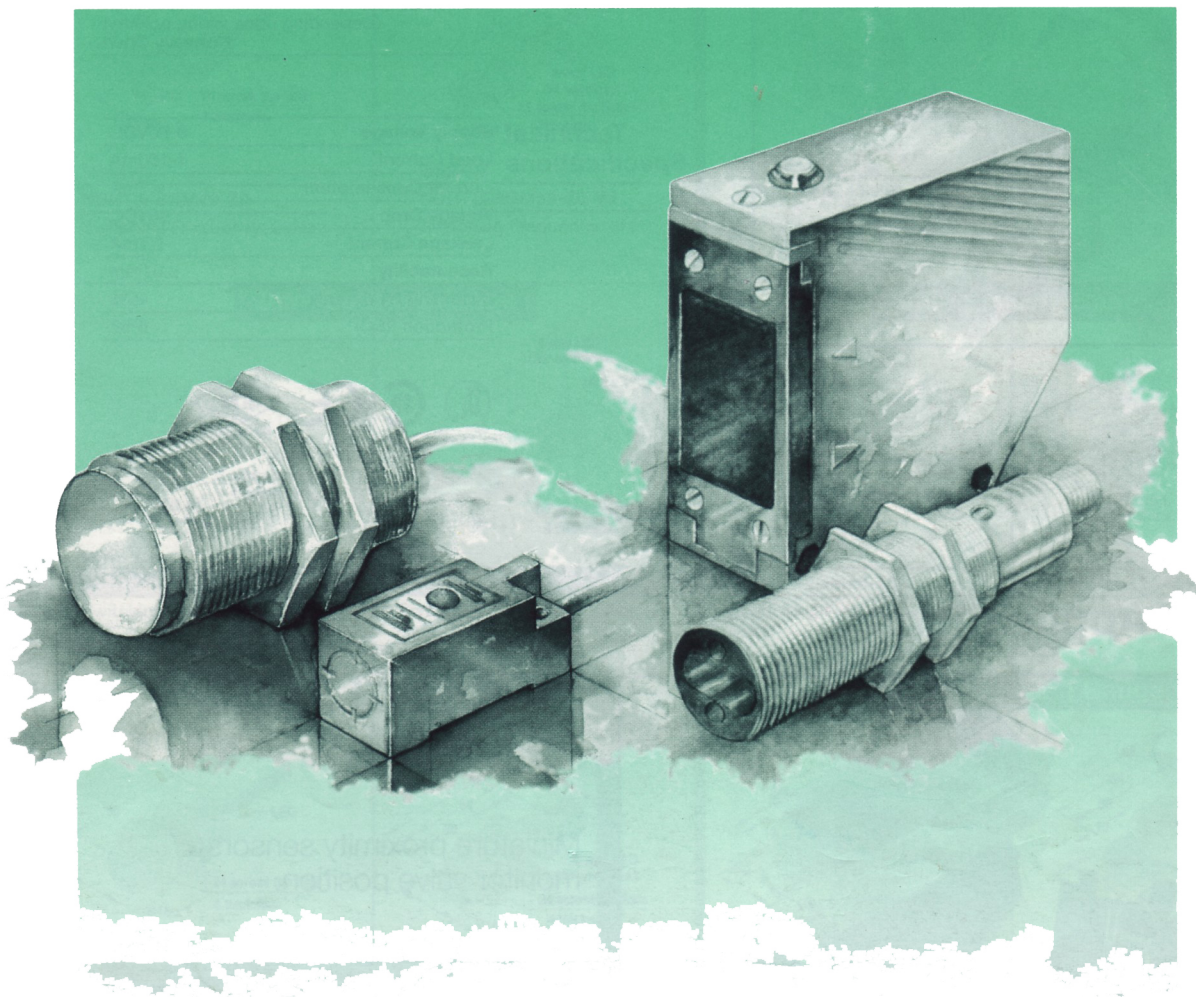


CE



Basic Series Sensors



General Specifications

Housing Material	Nickel-Plated Brass
Reverse Polarity Protected	YES
Short Circuit and Overload Protection	NO
Switch Status LED	YES (Yellow)
Switch Output Type	NPN or PNP (Depending upon wiring polarity)
	Normally Open

Technical Specifications

Supply Voltage	6-60VDC
Load Current	4-100mA
Current Consumption	≤7mA
Voltage Drop	≤8VDC
Leakage Current	≤7mA
Repeatability	≤.01mm
Switching Hysteresis	≈5%
Protection (IEC)	IP67



Non-Flammable

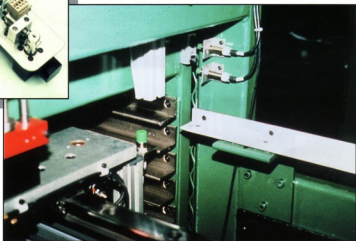


Typical Applications



Miniature proximity sensors monitor valve position.

Proximity sensors provide vertical and horizontal position feedback.



Dimensions (mm)

Flush Mount

2-wire
DC

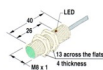


2 Meter PVC Cable



Quick Disconnect

1.5mm Sensing Range



Model No.
NBB1.5-8GM40-Z0
Switching Frequency: 2kHz



Model No.
NBB1.5-8GM55-Z0-V3
Switching Frequency: 2kHz

Non-Flush Mount



2 Meter PVC Cable

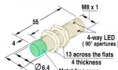


Quick Disconnect

2mm Sensing Range

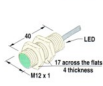


Model No.
NBN2-8GM40-Z0
Switching Frequency: 2kHz



Model No.
NBN2-8GM55-Z0-V3
Switching Frequency: 2kHz

2mm Sensing Range

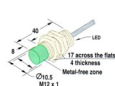


Model No.
NBB2-12GM40-Z0
Switching Frequency: 2kHz

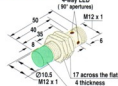


Model No.
NBB2-12GM40-Z0-V1
Switching Frequency: 2kHz

4mm Sensing Range

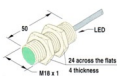


Model No.
NBN4-12GM40-Z0
Switching Frequency: 2kHz

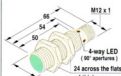


Model No.
NBN4-12GM40-Z0-V1
Switching Frequency: 2kHz

5mm Sensing Range

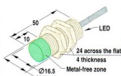


Model No.
NBB5-18GM50-Z0
Switching Frequency: 1kHz



Model No.
NBB5-18GM50-Z0-V1
Switching Frequency: 1kHz

8mm Sensing Range

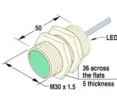


Model No.
NBN8-18GM50-Z0
Switching Frequency: 500Hz

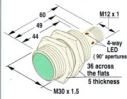


Model No.
NBN8-18GM50-Z0-V1
Switching Frequency: 500Hz

10mm Sensing Range

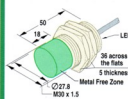


Model No.
NBB10-30GM50-Z0
Switching Frequency: 700Hz

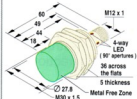


Model No.
NBB10-30GM50-Z0-V1
Switching Frequency: 700Hz

15mm Sensing Range



Model No.
NBN15-30GM50-Z0
Switching Frequency: 500Hz



Model No.
NBN15-30GM50-Z0-V1
Switching Frequency: 500Hz

Basic Series Inductive Sensors

Cylindrical • 3-Wire DC



General Specifications

Housing Material	Nickel-Plated Brass (Unless otherwise specified)
Switch Status LED	YES (Yellow)
Output Type	NPN (Type E0) or PNP (Type E2) Normally Open
Short Circuit and Overload Protection	YES

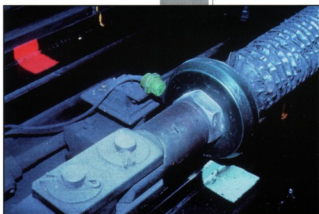
Technical Specifications

Supply Voltage	10-30VDC
Maximum Load Current	200mA (Unless otherwise specified)
Current Consumption	≤15mA
Voltage Drop	≤2VDC
Leakage Current	≤10μA
Repeatability	≤.01mm
Switching Hysteresis	~5%
Protection (IEC)	IP67



Typical Applications

Proximity
sensor
“end-of-stroke”
detection.



Dimensions (mm)

Flush Mount

3-wire
DC



2 Meter PVC Cable



Quick Disconnect

1.5mm Sensing Range

Diameter
6.5
(mm)



Output Model No.

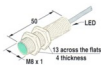
(NPN) **NBB1.5-6.5M20-E2-V3**

Switching Frequency: 2kHz

Maximum Load Current: 150mA

Housing Material: 303 Stainless

1.5mm Sensing Range



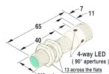
Output Model No.

(NPN) **NBB1.5-8GM50-E0**

(PNP) **NBB1.5-8GM50-E2**

Switching Frequency: 500Hz

Maximum Load Current: 100mA



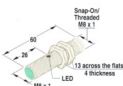
Output Model No.

(NPN) **NBB1.5-8GM40-E0-V1**

(PNP) **NBB1.5-8GM40-E2-V1**

Switching Frequency: 500Hz

Maximum Load Current: 100mA



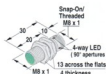
Output Model No.

(NPN) **NBB1.5-8GM50-E0-V3**

(PNP) **NBB1.5-8GM50-E2-V3**

Switching Frequency: 500Hz

Maximum Load Current: 100mA



Output Model No.

(NPN) **NBB1.5-8GM20-E2-V3**

Switching Frequency: 2kHz

Maximum Load Current: 150mA

Housing Material: 303 Stainless

Dimensions (mm)

3-wire
DC

Flush Mount



2 Meter PVC Cable



Quick Disconnect

2mm Sensing Range

Diameter
8
(mm)



Output Model No.
(NPN) NBB2-8GM50-E0-V1
(PNP) NBB2-8GM50-E2-V1
Switching Frequency: 1.5kHz

Non-Flush Mount



2 Meter PVC Cable

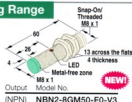


Quick Disconnect

2mm Sensing Range



Output Model No.
(NPN) NBN2-8GM40-E0
(PNP) NBN2-8GM40-E2
Switching Frequency: 1.5kHz
Maximum Load Current: 100mA



Output Model No.
(NPN) NBN2-8GM50-E0-V3
(PNP) NBN2-8GM50-E2-V3
Switching Frequency: 1.5kHz
Maximum Load Current: 100mA

2mm and 4mm Sensing Range

Diameter
12
(mm)

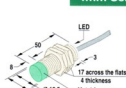


Output Model No.
(NPN) NBB2-12GM50-E0
(PNP) NBB2-12GM50-E2
Switching Frequency: 1.5kHz



Output Model No.
(NPN) NBB2-12GM50-E0-V1
(PNP) NBB2-12GM50-E2-V1
Switching Frequency: 1.5kHz

4mm Sensing Range



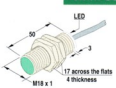
Output Model No.
(NPN) NBN4-12GM50-E0
(PNP) NBN4-12GM50-E2
Switching Frequency: 1.5kHz



Output Model No.
(NPN) NBN4-12GM50-E0-V1
(PNP) NBN4-12GM50-E2-V1
Switching Frequency: 1.5kHz

5mm Sensing Range

Diameter
18
(mm)



Output Model No.
(NPN) NBB5-18GM50-E0
(PNP) NBB5-18GM50-E2
Switching Frequency: 1kHz



Output Model No.
(NPN) NBB5-18GM50-E0-V1
(PNP) NBB5-18GM50-E2-V1
Switching Frequency: 1kHz

8mm Sensing Range



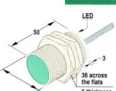
Output Model No.
(NPN) NBN8-18GM50-E0
(PNP) NBN8-18GM50-E2
Switching Frequency: 700Hz



Output Model No.
(NPN) NBN8-18GM50-E0-V1
(PNP) NBN8-18GM50-E2-V1
Switching Frequency: 700Hz

10mm Sensing Range

Diameter
30
(mm)

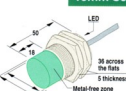


Output Model No.
(NPN) NBB10-30GM50-E0
(PNP) NBB10-30GM50-E2
Switching Frequency: 100Hz

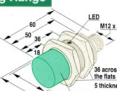


Output Model No.
(NPN) NBB10-30GM50-E0-V1
(PNP) NBB10-30GM50-E2-V1
Switching Frequency: 100Hz

15mm Sensing Range



Output Model No.
(NPN) NBN15-30GM50-E0
(PNP) NBN15-30GM50-E2
Switching Frequency: 100Hz



Output Model No.
(NPN) NBN15-30GM50-E0-V1
(PNP) NBN15-30GM50-E2-V1
Switching Frequency: 100Hz

Basic Series Inductive Sensors

Cylindrical • 4-Wire DC



General Specifications

Housing Material	Nickel-Plated Brass
Switch Status LED	YES (Yellow)
Output Type	Complementary Normally Open and Normally Closed Type A0 - NPN Type A2 - PNP
Short Circuit and Overload Protection	YES

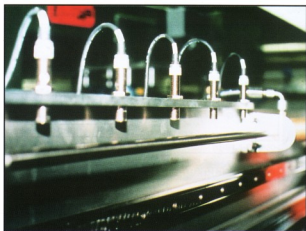
Technical Specifications

Supply Voltage	10-30VDC
Maximum Load Current	200mA
Current Consumption	≤15mA
Voltage Drop	≤2VDC
Leakage Current	≤10μA
Repeatability	≤0.1mm
Switching Hysteresis	≈5%
Protection (IEC)	IP67

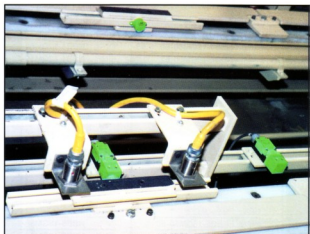


Non-incandescent

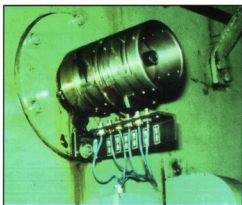
Typical Applications



A series of proximity sensors monitors slide shaft position.



Proximity sensors position bin trays in an incremental filling process. A P+F I.D. system determines the proper fill material by scanning the tray-mounted code carrier.



Proximity sensors monitor code sequence of a programmable cam.

Dimensions (mm)

4-wire
DC

Flush Mount



2 Meter PVC Cable



Quick Disconnect

2mm Sensing Range



Output Model No.

(NPN) NBB2-12GM60-A0

(PNP) NBB2-12GM60-A2

Switching Frequency: 1kHz



Output Model No.

(NPN) NBB2-12GM60-A0-V1

(PNP) NBB2-12GM60-A2-V1

Switching Frequency: 1kHz

Non-Flush Mount

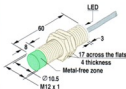


2 Meter PVC Cable



Quick Disconnect

4mm Sensing Range



Output Model No.

(NPN) NBN4-12GM60-A0

(PNP) NBN4-12GM60-A2

Switching Frequency: 1kHz



Output Model No.

(NPN) NBN4-12GM60-A0-V1

(PNP) NBN4-12GM60-A2-V1

Switching Frequency: 1kHz

Diameter
12
(mm)

5mm Sensing Range

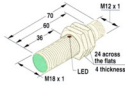


Output Model No.

(NPN) NBB5-18GM60-A0

(PNP) NBB5-18GM60-A2

Switching Frequency: 800Hz



Output Model No.

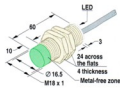
(NPN) NBB5-18GM60-A0-V1

(PNP) NBB5-18GM60-A2-V1

Switching Frequency: 800Hz

Diameter
18
(mm)

8mm Sensing Range

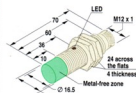


Output Model No.

(NPN) NBN8-18GM60-A0

(PNP) NBN8-18GM60-A2

Switching Frequency: 700Hz



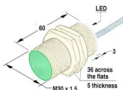
Output Model No.

(NPN) NBN8-18GM60-A0-V1

(PNP) NBN8-18GM60-A2-V1

Switching Frequency: 700Hz

10mm Sensing Range

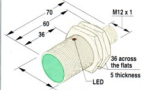


Output Model No.

(NPN) NBB10-30GM60-A0

(PNP) NBB10-30GM60-A2

Switching Frequency: 200Hz



Output Model No.

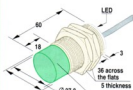
(NPN) NBB10-30GM60-A0-V1

(PNP) NBB10-30GM60-A2-V1

Switching Frequency: 200Hz

Diameter
30
(mm)

15mm Sensing Range

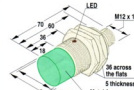


Output Model No.

(NPN) NBN15-30GM60-A0

(PNP) NBN15-30GM60-A2

Switching Frequency: 200Hz



Output Model No.

(NPN) NBN15-30GM60-A0-V1

(PNP) NBN15-30GM60-A2-V1

Switching Frequency: 200Hz



Typical Applications



General Specifications

	NJ-Series	NB-Series
Housing Material	303 Stainless Steel	Nickel-Plated Brass or Crastin
Short Circuit and Overload Protection	NO	
LED Indicators	Yellow-Switch Status	Green-Power Yellow-Switch Status
Switch Output	Thyristor Normally Open (Type WS) Normally Closed (Type WO)	

Technical Specifications

	NJ-Series	NB-Series
Supply Voltage	20-250VAC	
Load Current	5-200mA	
Current Consumption	≤1.7mA	
Voltage Drop	≤5VAC	
Leakage Current	≤1.2mA	
Repeatability	≤0.1mm	
Switching Hysteresis	~5%	
Protection (IEC)	IP67	



Amusement park ride uses proximity sensor feedback to control a braking system.

Dimensions (mm)

2-wire AC	Flush Mount		Non-Flush Mount	
	2 Meter PVC Cable	Quick Disconnect	2 Meter PVC Cable	Quick Disconnect
Diameter 12 (mm)	2mm Sensing Range		4mm Sensing Range	
	NJ2-12GM50-WS-V12 Output: Model No. (N.O.) NJ2-12GM50-WS (N.C.) NJ2-12GM50-WO Switching Frequency: 25Hz	NJ2-12GM50-WO-V12 Output: Model No. (N.O.) NJ2-12GM50-WS-V12 (N.C.) NJ2-12GM50-WO-V12 Switching Frequency: 25Hz	NJ4-12GM50-WS-V12 Output: Model No. (N.O.) NJ4-12GM50-WS (N.C.) NJ4-12GM50-WO Switching Frequency: 25Hz	NJ4-12GM50-WO-V12 Output: Model No. (N.O.) NJ4-12GM50-WS-V12 (N.C.) NJ4-12GM50-WO-V12 Switching Frequency: 25Hz

Dimensions (mm)

2-wire
AC

Flush Mount

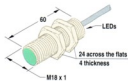


Terminal
Compartment

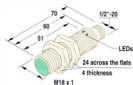


Quick Disconnect

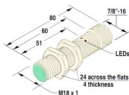
5mm Sensing Range



Output Model No.
(N.O.) NBB5-18GM60-WS
(N.C.) NBB5-18GM60-WO
Switching Frequency: 25Hz



Output Model No.
(N.O.) NBB5-18GM60-WS-V12
(N.C.) NBB5-18GM60-WO-V12
Switching Frequency: 25Hz



Output Model No.
(N.O.) NBB5-18GM80-WS-H77
(N.C.) NBB5-18GM80-WO-H77
Switching Frequency: 25Hz

Diameter
18
(mm)

Non-Flush Mount

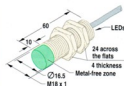


Terminal
Compartment

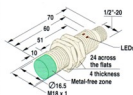


Quick Disconnect

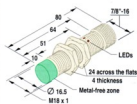
8mm Sensing Range



Output Model No.
(N.O.) NBN8-18GM60-WS
(N.C.) NBN8-18GM60-WO
Switching Frequency: 25Hz

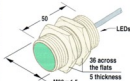


Output Model No.
(N.O.) NBN8-18GM60-WS-V12
Switching Frequency: 25Hz

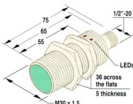


Output Model No.
(N.O.) NBN8-18GM80-WS-H77
(N.C.) NBN8-18GM80-WO-H77
Switching Frequency: 25Hz

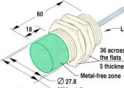
10mm Sensing Range



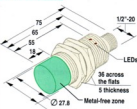
Output Model No.
(N.O.) NBB10-30GM60-WS
(N.C.) NBB10-30GM60-WO
Switching Frequency: 25Hz



Output Model No.
(N.O.) NBB10-30GM75-WS-V12
(N.C.) NBB10-30GM75-WO-V12
Switching Frequency: 25Hz



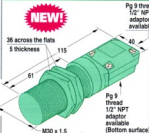
Output Model No.
(N.O.) NBN15-30GM60-WS
(N.C.) NBN15-30GM60-WO
Switching Frequency: 25Hz



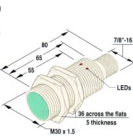
Output Model No.
(N.O.) NBN15-30GM75-WS-V12
Switching Frequency: 25Hz

Diameter
30
(mm)

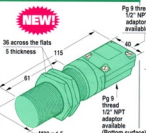
15mm Sensing Range



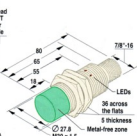
Output Model No.
(N.O.) NBB10-30GKK-WS
(N.C.) NBB10-30GKK-WO
Switching Frequency: 25Hz



Output Model No.
(N.O.) NBB10-30GM80-WS-H76
(N.C.) NBB10-30GM80-WO-H76
Switching Frequency: 25Hz



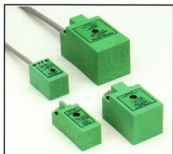
Output Model No.
(N.O.) NBN15-30GKK-WS
(N.C.) NBN15-30GKK-WO
Switching Frequency: 25Hz



Output Model No.
(N.O.) NBN15-30GM80-WS-H76
Switching Frequency: 25Hz

Basic Series Inductive Sensors

Surface Mount • 3-Wire DC



General Specifications

	F-Type Housing Style F7, F9, F10, F11, F29	
Housing Material	Crastin	
Short Circuit and Overload Protection	NO	YES
Reverse Polarity Protection	YES	
Switch Status LED	YES (Yellow)	
Switching Output	NPN (Type E0) or PNP (Type E2) Normally Open Transistor	



Non-incandescent

Technical Specifications

	F-Type Housing Style		
	F7	F9, F10, F11	F29
Supply Voltage	10-30VDC		
Load Current	≤50mA	≤150mA	≤100mA
Current Consumption	≤15mA		
Voltage Drop	≤3VDC	≤2VDC	
Leakage Current	≤10μA		
Repeatability	≤0.01mm		
Switching Hysteresis	≈5%		
Protection (IEC)	IP67		

Dimensions (mm)

3-wire
DC

F-Type Housing

2 Meter PVC Cable

Quick Disconnect

F29

NEW!



4mm Sensing Range

Non-Flush Mount

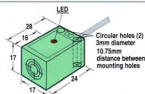
Output Model no.

(NPN) NBN4-F29-E0

(PNP) NBN4-F29-E2

Switching Frequency: 1kHz

F7



5mm Sensing Range

Non-Flush Mount

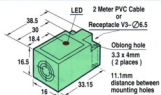
Output Model no.

(NPN) NBN5-F7-E0

(PNP) NBN5-F7-E2

Switching Frequency: 500Hz

F9



5mm Sensing Range

Flush Mount

Output Model no.

(NPN) NBB5-F9-E0

(PNP) NBB5-F9-E2

Switching Frequency: 500Hz

Flush Mount

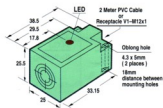
Output Model no.

(NPN) NBB5-F9-E0-V3

(PNP) NBB5-F9-E2-V3

Switching Frequency: 500Hz

F10



7mm Sensing Range

Flush Mount

Output Model no.

(NPN) NBB7-F10-E0

(PNP) NBB7-F10-E2

Switching Frequency: 500Hz

7mm Sensing Range

Flush Mount

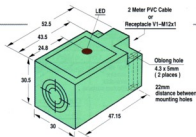
Output Model no.

(NPN) NBB7-F10-E0-V1

(PNP) NBB7-F10-E2-V1

Switching Frequency: 500Hz

F11



15mm Sensing Range

Non-Flush Mount

Output Model no.

(NPN) NBN15-F11-E0

(PNP) NBN15-F11-E2

Switching Frequency: 150Hz

15mm Sensing Range

Non-Flush Mount

Output Model no.

(NPN) NBN15-F11-E0-V1

(PNP) NBN15-F11-E2-V1

Switching Frequency: 150Hz

General Specifications

Housing Material	Crastin
Short Circuit and Overload Protection	NO
Switch Status LED	YES (Yellow)
Switching Output	Thyristor Normally Open (Type WS) Normally Closed (Type WO)



Technical Specifications

Supply Voltage	24-250VAC
Load Current	≤500mA
Current Consumption	≤1.5mA
Voltage Drop	≤7VAC
Leakage Current	≤1.5mA
Repeatability	≤0.01mm
Switching Hysteresis	~5%
Protection (IEC)	IP67

Basic Series Inductive Sensors

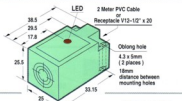
Surface Mount • 2-Wire AC

Dimensions (mm)

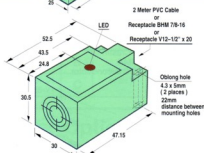
2-wire
AC

F-Type Housing

F10



F11



2 Meter PVC Cable

7mm Sensing Range

Flush Mount

Output	Model no.
(N.C.)	NBB7-F10-WO
(N.O.)	NBB7-F10-WS

Switching Frequency: 25Hz

15mm Sensing Range

Non-Flush Mount

Output	Model no.
(N.C.)	NBN15-F11-WO
(N.O.)	NBN15-F11-WS

Switching Frequency: 25Hz



Quick Disconnect

7mm Sensing Range

Flush Mount

Output	Model no.
(N.C.)	NBB7-F10-WO-V12
(N.O.)	NBB7-F10-WS-V12

Switching Frequency: 25Hz

15mm Sensing Range

Non-Flush Mount
Type V12 Receptacle

Output	Model no.
(N.C.)	NBN15-F11-WO-V12
(N.O.)	NBN15-F11-WS-V12

Switching Frequency: 25Hz

Type BHM Receptacle

Output	Model no.
(N.C.)	NBN15-F11-WO-BHM
(N.O.)	NBN15-F11-WS-BHM

Switching Frequency: 25Hz

General Specifications

Housing Material	See Below
Short Circuit and Overload Protection	NO
LED Indicators	Green Power Yellow Switch Status
Switching Output	Thyristor Normally Open (Type WS) Normally Closed (Type WO)



Technical Specifications

Supply Voltage	20-250VAC
Load Current	8-400mA
Current Consumption	≤1.7mA
Voltage Drop	≤5VAC
Leakage Current	≤1.7mA
Repeatability	≤0.01mm
Switching Hysteresis	~5%
Protection (IEC)	See Below

M-Type Housing

25-Position Sensing Face

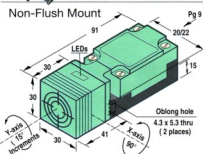
Dimensions (mm)



M1K

Terminal Compartment

Non-Flush Mount



Output	Model no.
(N.C.)	NBN15-M1K-WO
(N.O.)	NBN15-M1K-WS

Switching Frequency: 25Hz

Housing: Crastin

Protection (IEC): IP67

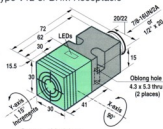
M1



Quick Disconnect

Non-Flush Mount

Type V12 or BHM Receptacle



Output	Model no.
(N.C.)	NBN15-M1-WO-BHM
(N.O.)	NBN15-M1-WS-BHM
(N.C.)	NBN15-M1-WO-V12
(N.O.)	NBN15-M1-WS-V12

Switching Frequency: 25Hz

Housing: Sensing Head — Crastin

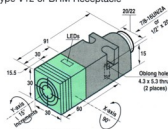
Mounting Block — Metal (Zn/Al)

Protection (IEC): IP65

M2

Non-Flush Mount

Type V12 or BHM Receptacle



Output	Model no.
(N.C.)	NBN15-M2-WO-BHM
(N.O.)	NBN15-M2-WS-BHM

Switching Frequency: 25Hz

Housing: Sensing Head — Crastin

Mounting Block — Metal (Zn/Si)

Protection (IEC): IP65

Basic Series Photoelectric Sensors

Cylindrical Style

General Specifications

Housing Material	Refer to Dimensional Drawings
Cable	Refer to Dimensional Drawings
Short Circuit and Overload Protection	See Below
Switch Status LED	YES (Yellow)
Switching Frequency	300Hz
Ambient Light Immunity	10,000 LUX (3,000 LUX Halogen)

Technical Specifications

Supply Voltage	10-30VDC
Load Current	≤100mA
Current Consumption	≤40mA
Voltage Drop	≤2VDC
Leakage Current	Negligible
Protection (IEC)	IP66



Diffused Mode



200mm Sensing Range (Non-Adjustable)

Output	Model No.	Housing Style	Operation Mode	Short Circuit and Overload Protection	Protection (IEC)	Light Source
(NPN)	OBT200-18GK70-E0	A	Light ON	NO	IP67	IR LED 940nm
(PNP)	OBT200-18GK70-E2					
(NPN)	OBT200-18GM70-E0	D				
(PNP)	OBT200-18GM70-E2					
(NPN)	OBT200-18GM70-E0-V1	E			IP65	
(PNP)	OBT200-18GM70-E2-V1					

200mm Sensing Range (Adjustable)

Output	Model No.	Housing Style	Operation Mode	Short Circuit and Overload Protection	Protection (IEC)	Light Source		
(NPN)	OBT200-18GM70-E4	B	Light ON/ Dark ON Selectable	YES	IP66	IR LED 940nm		
(PNP)	OBT200-18GM70-E5							
(NPN)	OBT200-18GM70-E4-V1	C			IP65			
(PNP)	OBT200-18GM70-E5-V1							

Retro-Reflective Mode (Non-Polarized)



0-3M Sensor-Reflector Separation (Adjustable)

Output	Model No.	Housing Style	Operation Mode	Short Circuit and Overload Protection	Protection (IEC)	Light Source	
(NPN)	OBS3000-18GM70-E4	B	Light ON/ Dark ON Selectable	YES	IP66	IR LED 880nm	
(PNP)	OBS3000-18GM70-E5						
(NPN)	OBS3000-18GM70-E4-V1	C					IP65
(PNP)	OBS3000-18GM70-E5-V1						

ORR50 Reflector Included

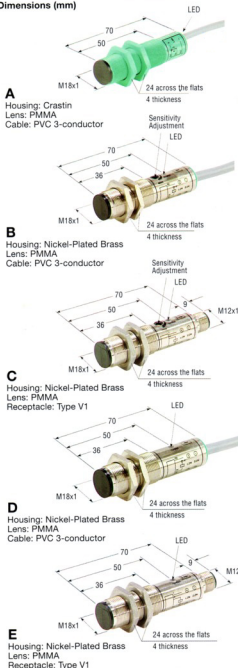
Thru-Beam Mode



0-5M Emitter-Receiver Separation (Adjustable)

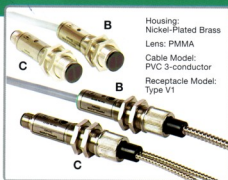
		Housing Style		Operation Mode	Short Circuit and Overload Protection	Protection (IEC)	Light Source
Output	Model No.	Emitt.	Rec.				
(NPN)	OBE5000-18GM70-SE4	D	B	Light ON/ Dark ON Selectable	YES	IP66	IR LED 880nm
(PNP)	OBE5000-18GM70-SE5						
(NPN)	OBE5000-18GM70-SE4-V1	E	C			IP65	
(PNP)	OBE5000-18GM70-SE5-V1						

Dimensions (mm)

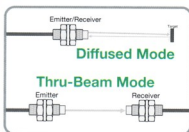


Basic Series Photoelectric Sensors

Cylindrical Style: Glass Fiber-Optic Compatible



18mm Diameter Sensors



Key to Glass Fiber Optic Model Numbers

TLG100-K1-M-500

Cable Length (mm)
M — Metal Cable Jacket
P — Plastic Cable Jacket
Sensing Head Style
TLG — Diffused (Single Cable)
ELG — Thru-Beam (Dual Cable)

Sensing Range (Adjustable)

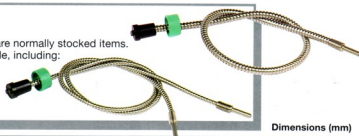
			Without Fiber-Optic Cable	With Fiber-Optic Cable (by Cable Diameter)								
Output	Model No.	Housing Style	Diffused Mode	Diffused Mode Sensing Ranges			Thru-Beam Emitter/Receiver Separation		Operation Mode	Short Circuit and Overload Protection	Protection (IEC)	Light Source
				Fiber-Optic Bundle Diameter			Fiber-Optic Bundle Diameter					
				1.1mm	2.3mm	3.2mm	1.1mm	2.3mm				
(NPN)	OBT200L-18GM70-E4	B	350mm (max.)	5mm (max.)	22mm (max.)	50mm (max.)	60mm (max.)	250mm (max.)	Light ON/ Dark ON Selectable	YES	IP66	IR LED 940nm
(PNP)	OBT200L-18GM70-E5											
(NPN)	OBT200L-18GM70-E4-V1	C									IP65	
(PNP)	OBT200L-18GM70-E5-V1											

Glass Fiber-Optic Cables

Features and Specifications

The glass cables shown below are normally stocked items. Other cable versions are available, including:

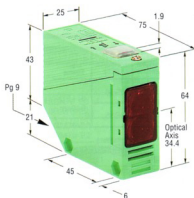
- Alternative head styles
- Silicone-coated cables
- Customized fiber lengths



Dimensions (mm)

K1 Diffused Model no. TLG100-K1-M-500 TLG100-K1-M-2000 TLG100-K1-P-500 TLG100-K1-P-2000 Thru-Beam Model no. ELG600-K1-M-500 ELG600-K1-M-2000	K2 Diffused Model no. TLG100-K2-P-500 TLG100-K2-P-2000 Thru-Beam Model no. ELG600-K2-M-500 ELG600-K2-M-2000 ELG600-K2-P-500 ELG600-K2-P-2000 1	K3 Diffused Model no. TLG45-K3-M-500 TLG45-K3-M-2000 Thru-Beam Model no. ELG600-K3-M-500 ELG600-K3-M-2000	K4 Diffused Model no. TLG100-K4-M-500 TLG100-K4-M-2000 Thru-Beam Model no. ELG600-K4-M-500 ELG600-K4-M-2000
K6 Diffused Model no. TLG100-K6-M-500 TLG100-K6-M-2000 TLG100-K6-P-500 TLG100-K6-P-2000 Thru-Beam Model no. ELG600-K6-M-500 ELG600-K6-M-2000	K10 Diffused Model no. TLG100-K10-M-2000 Thru-Beam Model no. ELG600-K10-M-2000	K11 Diffused Model no. TLG45-K11-M-500 TLG45-K11-M-2000 TLG45-K11-P-500 TLG45-K11-P-2000 Thru-Beam Model no. ELG600-K11-M-500 ELG600-K11-M-2000	K13 Bendable Fiber Tip 1) "Bend Free" Area Diffused Model no. TLG10-K13-M-500 TLG10-K13-M-2000 Thru-Beam Model no. ELG180-K13-M-500 ELG180-K13-M-2000

Rectangular Style



Dimensions (mm)

General Specifications

	TRANSISTOR OUTPUT (E4/E5)	RELAY OUTPUT (UK/UKT)
Housing Material	Crastin (with PMMA Lens)	
Short Circuit and Overload Protection	YES	N/A
LED Indicators	Yellow: Switch Status	Red: Alignment/Signal Strength
Switching Frequency	300Hz	25Hz max.
Timing Functions	NO	Type "UK": NONE Type "UKT": 1. One-Shot 3. Off Delay 2. On Delay 4. Std. Operation
Switching Output	NPN (Type E4) or PNP (Type E5) Transistor	SPST Relay
Signal Strength Alarm Output	NPN (Type E4) or PNP (Type E5) Transistor	NONE
Ambient Light Resistance	10,000 LUX (7500 LUX Halogen)	

Technical Specifications

	TRANSISTOR OUTPUT (E4/E5)	RELAY OUTPUT (UK/UKT)
Supply Voltage	10-30VDC	24-240VAC 12-240VDC
Load Current	≤200mA	DC Contact Rating: 30V/3A AC Contact Rating 240V/3A
Current/Power Consumption	≤35mA	3VA
Leakage Current	Negligible	N/A
Voltage Drop	≤3VDC	N/A
Response Time	1.5ms	20ms
Protection (IEC)	IP66	



Diffused Mode



800mm Sensing Range (Adjustable)

Transistor Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCT800-F8-E4	10-30VDC	Light ON/ Dark ON Selectable	NPN Transistor	Red LED	YES NPN N.O. Transistor	IP66	
OCT800-F8-E5							

Relay Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCT800-F8-UK (without timer)	24-240VAC and 12-240VDC	Light ON/ Dark ON Selectable	SPST Relay	Red LED	None	IP66	
OCT800-F8-UKT (with timer)							

2M Sensing Range (Adjustable)

Relay Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCT2000-F8-UK (without timer)	24-240VAC and 12-240VDC	Light ON/ Dark ON Selectable	SPST Relay	Red LED	None	IP66	
OCT2000-F8-UKT (with timer)							

Mounting Bracket Model OMH-F8



Mounting Bracket and Cord Grip Included

Mounting Bracket and Cord Grip Included

Mounting Bracket and Cord Grip Included

Retro-Reflective
ModeReflector
Model ORR50Mounting
Bracket Model
OMH-F8

Polarized 5M Sensor/Reflector Separation (Adjustable)

Transistor Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCS5000-F8-E4	10-30VDC				Light ON/ Dark ON Selectable	NPN Transistor	
OCS5000-F8-E5		PNP Transistor	PNP N.O. Transistor				
Relay Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCS5000-F8-UK (without timer)	24-240VAC and 12-240VDC				Light ON/ Dark ON Selectable	SPST Relay	
OCS5000-F8-UKT (with timer)							

Mounting
Bracket,
Reflector and
Cord Grip
IncludedMounting
Bracket,
Reflector and
Cord Grip
Included

Non-Polarized 20M Sensor/Reflector Separation (Adjustable)

Relay Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCS20M-F8-UK (without timer)	24-240VAC and 12-240VDC	Light ON/ Dark ON Selectable	SPST Relay	Red LED	None	IP66	
OCS20M-F8-UKT (with timer)							

Mounting
Bracket,
Reflector and
Cord Grip
IncludedThru-Beam
Mode

Emitter



Receiver

20M Emitter/Receiver Separation (Adjustable)

Transistor Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCE20M-F8-SE4	10-30VDC				Light ON/ Dark ON Selectable	NPN Transistor	
OCE20M-F8-SE5		PNP Transistor	PNP N.O. Transistor				

Relay Output		Power Supply	Operation Mode	Switch Output	Signal Strength Alarm		Protection Rating
Model No.					Visual	Switch Output	
OCE20M-F8-SUK (without timer)	24-240VAC and				Light ON/ Dark ON Selectable	SPST Relay	
OCE20M-F8-SUKT (with timer)	12-240VDC						

Includes
Emitter,
Receiver,
Mounting
Brackets,
and Cord GripsIncludes
Emitter,
Receiver,
Mounting
Brackets,
and Cord Grips



NEW!

**Power Cube
F28 Series**



General Specifications

Housing Material	Refer to Dimensional Drawings
Cable	Refer to Dimensional Drawings
Short Circuit and Overload Protection	YES
LED Indicators	See Below
Switching Frequency	200Hz (Unless otherwise specified)
Ambient Light Resistance	20,000 LUX 5,000 LUX Halogen

Technical Specifications

Supply Voltage	10-30VDC
Load Current	≤300mA
Current Consumption	≤25mA
Voltage Drop	≤2.5V
Leakage Current	Negligible
Light Source	Infrared 950nm
Protection (IEC)	IP67



Diffused Mode



20-80mm Sensing Range (Non-Adjustable)

Output	Model No.	Housing Style	Switch Output	LED Indicators		
				Power	Signal Strength	Switch Status
(NPN)	OBT80-F17-E0	A	NPN Transistor (Light ON)	YES (Green)	YES (Red)	YES (Yellow)
(PNP)	OBT80-F17-E2		PNP Transistor (Light ON)			

0-400mm Sensing Range (Adjustable)

Output	Model No.	Housing Style	Switch Output	LED Indicators		
				Power	Signal Strength	Switch Status
(NPN)	OBT300-F3-E0	B	Type E0 NPN	NO	YES (Red)	YES (Yellow)
(PNP)	OBT300-F3-E2		Type E2 PNP Transistor (Light ON)			
(NPN)	OBT300-F3-E0-V3	D	Type E0 NPN	NO	YES (Red)	YES (Yellow)
(PNP)	OBT300-F3-E2-V3		Type E2 PNP Transistor (Light ON)			
NEW!	(NPN) OBT400-F28-E4	E	Type E4 NPN	NO	YES (Red)	YES (Yellow)
	(PNP) OBT400-F28-E5		Type E5 PNP Transistor (Selectable Light ON/ Dark ON)			

Mounting Bracket Included



Mounting Bracket Model
OMH-F3



Mounting Bracket Model
OMH-F28



Retro-Reflective Mode (Non-Polarized)



100-2000mm Sensing Range (Fixed)

Output	Model No.	Housing Style	Switch Output	LED Indicators		
				Power	Signal Strength	Switch Status
(NPN)	OBS2000-F17-E0	C	NPN Transistor (Dark ON)	YES (Green)	YES (Red)	YES (Yellow)
(PNP)	OBS2000-F17-E2		PNP Transistor (Dark ON)	YES (Green)	YES (Red)	YES (Yellow)

Reflector Included

20-2000mm Sensing Range (Adjustable)

Output	Model No.	Housing Style	Switch Output	LED Indicators		
				Power	Signal Strength	Switch Status
(NPN)	OBS2000-F3-E0	B	Type E0 NPN Transistor (Dark ON)	NO	YES (Red)	YES (Yellow)
(PNP)	OBS2000-F3-E2		Type E2 PNP Transistor (Dark ON)	NO	YES (Red)	YES (Yellow)
(NPN)	OBS2000-F3-E0-V3	D	Type E0 NPN Transistor (Dark ON)	NO	YES (Red)	YES (Yellow)
(PNP)	OBS2000-F3-E2-V3		Type E2 PNP Transistor (Dark ON)	NO	YES (Red)	YES (Yellow)
NEW! (NPN) OBS2000-F28-E4 (PNP) OBS2000-F28-E5 Switching Frequency: 500Hz		E	Type E4 NPN Transistor (Selectable Light ON/ DarkON)	NO	YES (Red)	YES (Yellow)
			Type E5 PNP Transistor (Selectable Light ON/ DarkON)	NO	YES (Red)	YES (Yellow)

Mounting Bracket and Reflector Included

Thru-Beam Mode



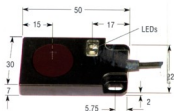
0-5000mm Sensing Range (Adjustable)

		Housing Style	Switch Output	LED Indicators		
				Power	Signal Strength	Switch Status
Output	Model No.					
NEW! (NPN) OBE5000-F28-SE4 (PNP) OBE5000-F28-SE5 Switching Frequency: 500Hz		E	Type SE4 NPN Type SE5 PNP Transistor (Selectable Light ON/ DarkON)	YES (Green) (Emitter Only)	YES (Red)	YES (Yellow)

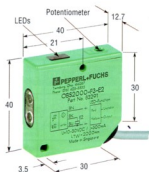
Includes Emitter, Receiver, and Mounting Brackets

Dimensions (mm)

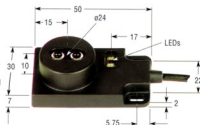
A
Housing: Crastin
Lens: PMMA
Cable: PUR Covered 3-conductor #22AWG



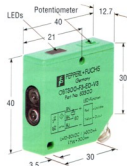
B
Housing: Crastin
Lens: PMMA
Cable: PUR Covered 3-conductor #22AWG



C
Housing: Crastin
Lens: PMMA
Cable: PUR Covered 3-conductor #22AWG

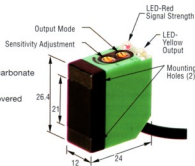


D
Housing: Crastin
Lens: PMMA
Receptacle: Type V3



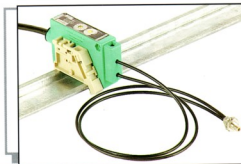
NEW!

E
Housing: Polycarbonate
Lens: PMMA
Cable: PUR Covered 3-conductor #22AWG



Basic Series Photoelectric Sensors

Fiber-Optic • 3-Wire DC



General Specifications

Housing Material	Crastin
Cable	2 meter, PVC covered 3 conductor, 22AWG
Short Circuit and Overload Protection	YES
LED Indicators	
Red	Alignment
Yellow	Switch Status
Switching Frequency	700Hz

Technical Specifications

Supply Voltage	10-30VDC
Load Current	≤100mA
Current Consumption	≤20mA
Voltage Drop	≤1.5VDC
Leakage Current	Negligible
Light Source	Visible Red LED 660nm
Protection (IEC)	IP66



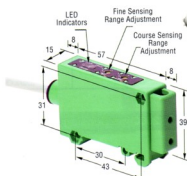
15-150mm Sensing Range

Output	Model No.	Operation Mode	Switch Output	Diffused Mode Max. Sensing Ranges		Thru-Beam Mode Max. Optic Separations		Minimum Target Sizes	
				Bundle Diameter .5mm	1mm	Bundle Diameter 5mm	1mm	Bundle Diameter .5mm	1mm
(NPN)	OB150-F6-E4	Light ON/ Dark ON Selectable	NPN Transistor	15mm	50mm	50mm	150mm	.5mm x .5mm	1mm x 1mm
(PNP)	OB150-F6-E5		PNP Transistor						

Plastic Fiber Optic Cables

Standard Features and Specifications

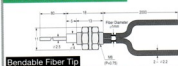
- Supplied in 2 Meter Lengths (cutting tool is provided for custom shortening of cable length)
- 11 different Cable Configurations
- PVC Coated Fiber Jacket



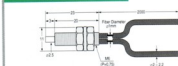
Dimensions (mm)

Diffused

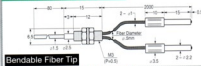
TLK 60-K57-P2000



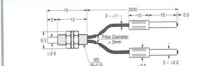
TLK 60-K60-P2000



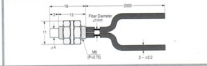
TLK 25-K58-P2000



TLK 20-K61-P2000

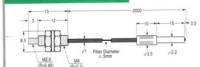


TLK 70-K59-P2000

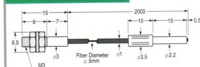


Thru-Beam

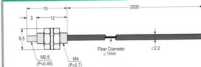
ELK 50-K51-P2000



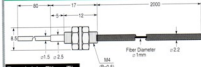
ELK 50-K54-P2000



ELK 150-K52-P2000



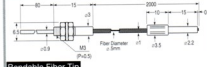
ELK 150-K55-P2000



ELK 150-K53-P2000



ELK 50-K56-P2000



Inductive Proximity Sensors

Cable Type

2-wire DC output, self-contained



3-wire DC output, self-contained



4-wire DC output, self-contained



2-wire AC output, self-contained



Terminal Connection Type

2-wire AC output, self-contained



Quick Disconnect By Type

BHM Type

2-wire AC output, self-contained



Male Receptacle End View

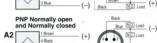


V1 Type

2-wire DC output, self-contained



4-wire DC output, self-contained



Photoelectric Sensors

Cable Type

Light On NPN Output



Light On PNP Output



Light On NPN Output



Dark On NPN Output



Light On PNP Output



Dark On PNP Output



Emitter (Thru Beam Model)



Quick Disconnect Type V1

Light On NPN Output



Light On PNP Output



Light On NPN Output



Dark On NPN Output



Light On PNP Output



Dark On PNP Output



Emitter (Thru Beam Model)



Terminal Connection Type

Light On/Dark On Receiver (Thru-Beam Model)



Emitter (Thru-Beam Model)



Light On / Dark On Receiver (NPN Output)



Light On / Dark On Receiver (PNP Output)



Light On / Dark On Receiver (PNP Output) (Thru-Beam Model)



Light On / Dark On Receiver (NPN Output) (Thru-Beam Model)



Emitter (Thru-Beam Model) OCE20M-F8



Light On/Dark On (Diffused or Retro-Reflective)

