

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

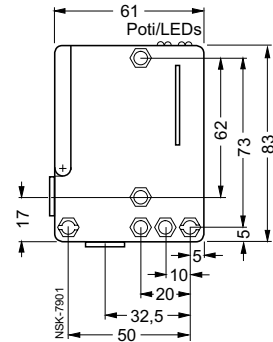
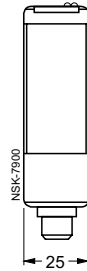
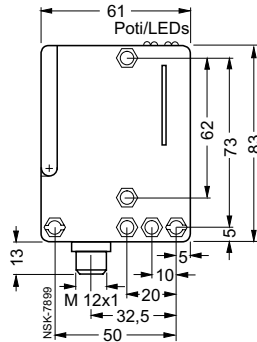
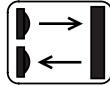
K 80

Sensing range 2 m
(energetic sensor)

Modulated infrared light
DC or AC/DC
M 12 plug or
Pg 11 moulded plastic joint
IP 67
ON-delay, OFF-delay,
pulse shaping
Timer 0.01 s to 10 s
Enabling input for testing
Solid state or relay output
AS-Interface with FK terminal
Temperature range -5 °C to +55 °C
Temperature coefficient 0.3%/K

Delivery does not include bracket

Diffuse sensors



Sensing range	2 m		
Operational voltage	DC 10 to 36 V	AC/DC 20 to 320 V	AS-Interface
Output current	200 mA	2 A (AC 240 V)	I/O configuration 1
Current input (no load)	≤ 30 mA	≤ 2 VA	ID code 1
Operating frequency	≤ 1000 Hz	≤ 20 Hz	≤ 30 mA
Switching time	≤ 0.5 ms	≤ 20 ms	≤ 5 ms
LED	Switching state indication (yellow), surplus light emission (green)		
Standard target	400 mm × 400 mm (white)		
Transmitter (type of light)	IR LED 880 nm		
Housing material	Plastic, glass-fibre-reinforced (PBTP, Crastin)		
Degree of protection	IP 67		
Weight (cable/plug)	95 g		

		Order No.	Price	Wiring diagram	Order No.	Price	Wiring diagram
		1 unit		(see page 10/176)	1 unit		(see page 10/176)
M 12 plug, 4-pole, type F	pnp, light-ON and dark-ON function	▶ 3RG72 00-3CC00		5	-		
M 12 plug, 5-pole, type G, with enabling input	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 10-3DK00		8	-		
Pg 11 relocatable	pnp, light-ON and dark-ON function	▶ 3RG72 00-6CC00		12	-		
Pg 11 relocatable, with enabling input	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 10-6DK00		12	-		
Pg 11 relocatable	Relay, light-ON and dark-ON function, timer (0.1 to 10 s)	-			▶ 3RG72 10-6MC00		11
FK terminal	AS-Interface, timer (0.01 to 1 s)	-			▶ 3RG72 10-5WS00		10

Accessories

Mounting bracket for K 80

▶ **3RX7 303**

Delivery

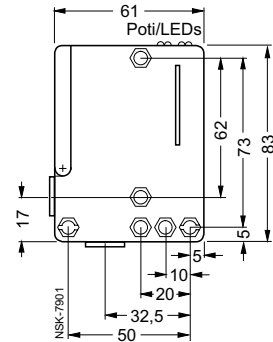
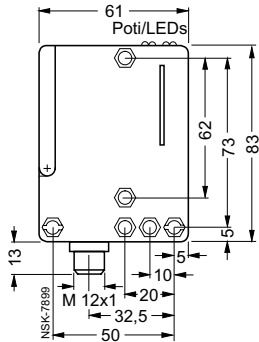
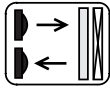
▶ Preferred type.

K 80

Sensing range 0.2 m to 1 m
(with background suppression)

Modulated infrared light
DC or AC/DC
M 12 plug or
Pg 11 moulded plastic joint
IP 67
ON-delay, OFF-delay,
pulse shaping
Timer 0.01 s to 10 s
Enabling input for testing
Solid state or relay output
AS-Interface with FK terminal
Temperature range -5 °C to +55 °C
Temperature coefficient 0.3%/K

Delivery does not include bracket



Sensing range	0.2 m to 1 m	
Operational voltage	DC 10 to 36 V	AS-Interface
Output current	200 mA	I/O configuration 1
Current input (no load)	≤ 45 mA	ID code 1
Operating frequency	≤ 250 Hz	≤ 30 mA
Switching time	≤ 2ms	≤ 5 ms
LED	Switching state indication (yellow), surplus light emission (green)	
Standard target	200 mm × 200 mm (white)	
Transmitter (type of light)	IR LED 880 nm	
Housing material	Plastic, glass-fibre-reinforced (PBTP, Crastin)	
Degree of protection	IP 67	
Weight (cable/plug)	95 g	

	Order No.	Price	Wiring diagram (see page 10/176)	Order No.	Price	Wiring diagram (see page 10/176)
M 12 plug, 4-pole, type F	▶ 3RG72 04-3CC00	1 unit	5	-		
M 12 plug, 5-pole, type G, with enabling input	▶ 3RG72 14-3DK00		8	-		
Pg 11 relocatable	▶ 3RG72 04-6CC00		12	-		
Pg 11 relocatable, with enabling input	▶ 3RG72 14-6DK00		12	-		
FK terminal	-			▶ 3RG72 14-5WS00		10

Accessories

Mounting bracket for K 80

▶ **3RX7 303**

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

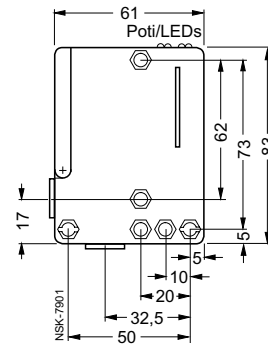
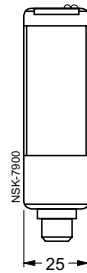
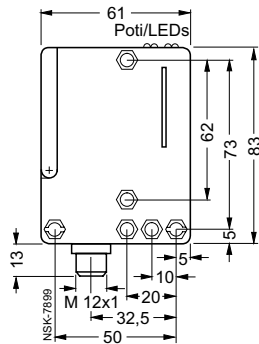
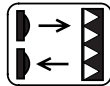
K 80

Sensing range 6 m
(with autocollimation)

Modulated red light (polarized, visible)
DC or AC/DC
M 12 plug or
Pg 11 moulded plastic joint
IP 67
ON-delay, OFF-delay,
pulse shaping
Timer 0.01 s to 10 s
Enabling input for testing
Solid state or relay output
AS-Interface with FK terminal
Temperature range -5 °C to +55 °C
Temperature coefficient 0.3%/K

Delivery does not include bracket and reflector

Reflex sensors



Transmission range	6 m		
Operational voltage	DC 10 to 36 V	AC/DC 20 to 320 V	AS-Interface
Output current	200 mA	2 A (AC 240 V)	I/O configuration 1
Current input (no load)	≤ 30 mA	≤ 2 VA	ID code 1
Operating frequency	≤ 1000 Hz	≤ 20 Hz	≤ 30 mA
Switching time	≤ 0.5 ms	≤ 20 ms	≤ 5 ms
LED	Switching state indication (yellow), surplus light emission (green)		
Standard target	Reflector type D 84, 3RX7 916		
Transmitter (type of light)	LED red 660 nm (polarized, visible)		
Housing material	Plastic, glass-fibre-reinforced (PBTP, Crastin)		
Degree of protection	IP 67		
Weight (cable/plug)	95 g		

		Order No.	Price	Wiring diagram	Order No.	Price	Wiring diagram
		1 unit		(see page 10/176)	1 unit		(see page 10/176)
M 12 plug, 4-pole, type F	pnp, light-ON and dark-ON function	▶ 3RG72 01-3CC00		5	-		
M 12 plug, 5-pole, type G, with enabling input	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 11-3DK00		8	-		
Pg 11 relocatable	pnp, light-ON and dark-ON function	▶ 3RG72 01-6CC00		12	-		
Pg 11 relocatable, with enabling input	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 11-6DK00		12	-		
Pg 11 relocatable	Relay, light-ON and dark-ON function, timer (0.1 to 10 s)	-			▶ 3RG72 11-6MC00		11
FK terminal	AS-Interface, timer (0.01 to 1 s)	-			▶ 3RG72 11-5WS00		10

Accessories

Mounting bracket for K 80

▶ **3RX7 303**

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

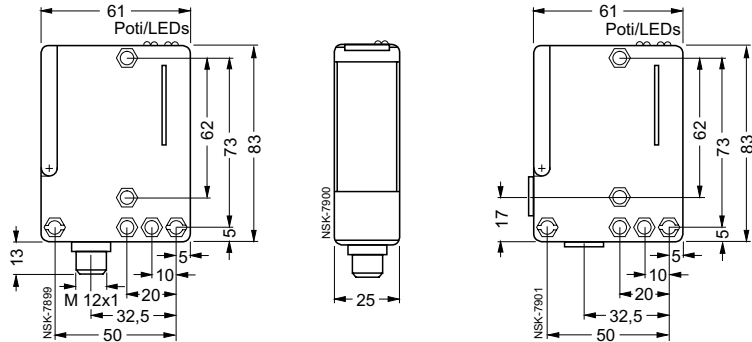
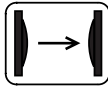
Selection and ordering data

K 80

Transmission range 50 m

Modulated infrared light
DC or AC/DC
M 12 plug or
Pg 11 moulded plastic joint
IP 67
ON-delay, OFF-delay,
pulse shaping
Timer 0.01 s to 10 s
Enabling input for testing
Solid state or relay output
AS-Interface with FK terminal
Temperature range -5 °C to +55 °C
Temperature coefficient 0.3%/K

Delivery does not include bracket



Transmission range	50 m		
Operational voltage	DC 10 to 36 V	AC/DC 20 to 320 V	AS-Interface
Output current	200 mA	2 A	I/O configuration 1
Current input (no load)	≤ 30 mA	≤ 2 VA	ID code 1
Operating frequency	≤ 1000 Hz	≤ 20 Hz	≤ 30 mA
Switching time	≤ 0.5 ms	≤ 20 ms	≤ 5 ms
LED	Switching state indication (yellow), surplus light emission (green)		
Standard target	-		
Transmitter (type of light)	IR LED 880 nm		
Housing material	Plastic, glass-fibre-reinforced (PBTP, Crastin)		
Degree of protection	IP 67		
Weight (cable/plug)	95 g		

Receiver		Order No.	Price	Wiring diagram	Order No.	Price	Wiring diagram
		1 unit		(see page 10/176)	1 unit		(see page 10/176)
M 12 plug, 4-pole, type F	pnp, light-ON and dark-ON function	▶ 3RG72 02-3CC00		5	-		
M 12 plug, 4-pole, type F	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 12-3DK00		8	-		
Pg 11 relocatable	pnp, light-ON and dark-ON function	▶ 3RG72 02-6CC00		12	-		
Pg 11 relocatable, with enabling input	pnp, light-ON or dark-ON function, surplus light emission, timer (0.01 to 1 s)	▶ 3RG72 12-6DK00		12	-		
Pg 11 relocatable	Relay, light-ON and dark-ON function, timer (0.1 to 10 s)	-			▶ 3RG72 12-6MC00		11
FK terminal	AS-Interface, timer (0.01 to 1 s)	-			▶ 3RG72 12-5WS00		10
Transmitter							
M 12 plug, 4-pole, type F		▶ 3RG72 02-3BG00		7	-		
Pg 11 relocatable		▶ 3RG72 02-6BG00		12	▶ 3RG72 02-6FG00		12
FK terminal for AS-Interface		-			▶ 3RG72 02-5WG00		10
Accessories							
Mounting bracket for K 80		▶ 3RX7 303					

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

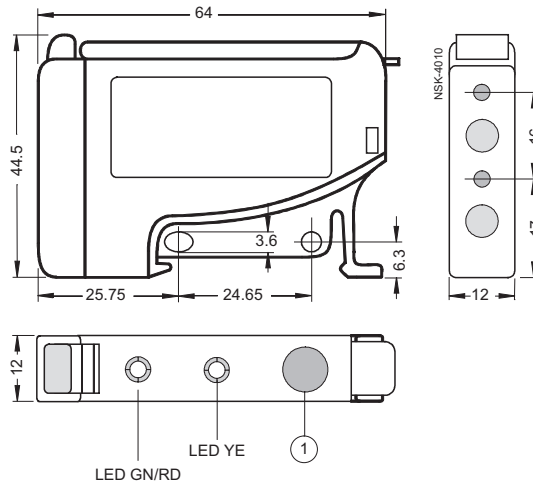
BERO for plastic fibre-optic conductors

KL 40

For snapping onto standard DIN rail.

DC 10 to 30 V
 Cable
 Housing: moulded plastic
 IP 65
 Programmable with Teach-In
 Solid state output npn or pnp
 Temperature range -10 °C to +55 °C

Delivery does not include bracket



① Programming

Sensing range	Depending on the fibre
Operational voltage	DC 10 to 30 V
Output current	100 mA
Current input (no load)	< 55 mA
Operating frequency	1.5 kHz
Switching time	333 µs
LED	Switch status (yellow), set (red/green)
Standard target	-
Transmitter (type of light)	LED red 660 nm
Housing material	ABS
Degree of protection	IP 65
Weight (cable/plug)	100 g

	Order No.	Price 1 unit	Wiring diagram (see page 10/176)
Cable 2 m, PVC, 6 x 0.088 mm ²	▶ 3RG74 13-1CH00		34
	3RG74 13-1HH00		34
M 8 plug, 4-pole, type B	▶ 3RG74 13-7CH00		23
	3RG74 13-7HH00		23
Accessories			
Mounting bracket for KL 40	▶ 3RX7 313		

Plastic fibre-optic conductors see pages 10/181 and 10/182.

Delivery
 ▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

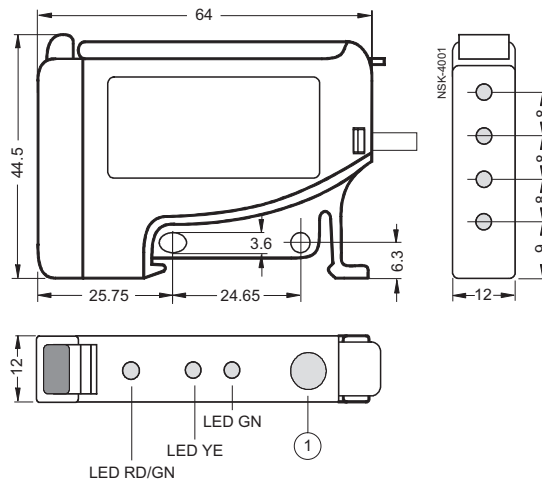
CL 40

Sensing range 3 to 15 mm

DC 10 to 30 V
 Cable or plug M 8
 Housing: moulded plastic
 IP 65
 Programmable with Teach-In
 Solid state output npn/pnp
 Temperature range -10 °C to +55 °C

Delivery does not include bracket, but does include 3RX7 011 fibre-optic

Colour sensor



① Programming

Sensing range	3 to 15 mm
Operational voltage	DC 10 to 30 V
Output current	100 mA
Current input (no load)	< 60 mA
Operating frequency	550 Hz
Switching time	100 µs
LED	Switch status (yellow), programming (red/green), timer (green)
Standard target	-
Transmitter (type of light)	3 LEDs red 660 nm, blue 470 nm, green 525 nm
Housing material	ABS
Degree of protection	IP 65
Weight (cable/plug)	40 g

	Order No.	Price 1 unit	Wiring diagram (see page 10/176)
Cable 2 m, PVC, 6 x 0.088 mm ²	▶ 3RG75 50-1CA00		35
	▶ 3RG75 50-1HA00		35
M 8 plug, 4-pole, type B	▶ 3RG75 50-7CA00		25
	▶ 3RG75 50-7HA00		25

Accessories

Fibre-optic cable for CL 40 colour sensor	▶ 3RX7 011	
Mounting bracket for CL 40	▶ 3RX7 313	

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

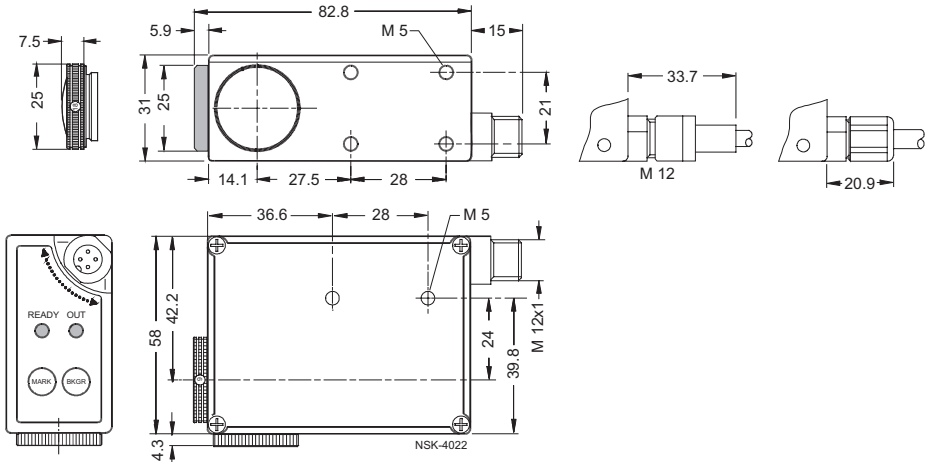
C 80

Sensing range 9 mm/18 mm

- DC 10 to 30 V
- Cable or plug M12
- Metal housing
- IP 67
- Programmable with Teach-In
- Pickup delay switchable
- Solid state output pnp
- Analog output 0 to 5.5 V
- Horizontal or vertical light spot
- Temperature range -10 °C to +55 °C

Delivery does not include bracket

Printed mark reader (colour marking)



Sensing range	9 mm	18 mm
Operational voltage	DC 10 to 30 V	
Output current	200 mA	
Current input (no load)	< 80 mA	
Operating frequency	10 kHz	
Switching time	50 µs	
Analog output	0 to 5.5 V / Ri = 22 kΩ	
LED	Switch status (yellow), ready (green)	
Standard target	-	
Transmitter (type of light)	LED red 660 nm or LED green 565 nm; automatic selection	
Housing material	Pressure-cast aluminum	
Degree of protection	IP 67	
Weight (cable/plug)	560 g	

pnp light-ON or dark-ON function

	Order No.	Price 1 unit	Wiring diagram (see page 10/176)	Order No.	Price 1 unit	Wiring diagram (see page 10/176)
Cable 3 m, PVC, Vertical light spot 6 x 0.15 mm ² , screened	▶ 3RG75 60-1CH55		36	▶ 3RG75 60-1CH54		36
M 12 plug, Vertical light spot 4-pole, type F	▶ 3RG75 60-3CH55 3RG75 60-3CH53		26 26	▶ 3RG75 60-3CH54 3RG75 60-3CH56		26 26

Delivery

- ▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

G 20

Slot width 2 mm

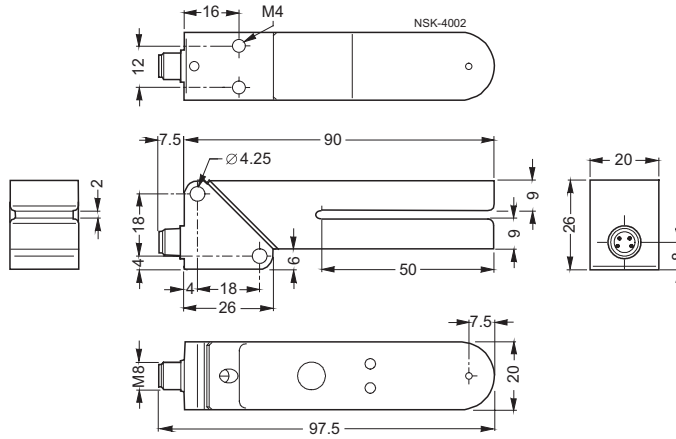
DC 10 to 30 V
M 8 plug
IP 65
pnp and npn
Teach-In
Solid state output
Temperature range 0 °C to +55 °C

Delivery does not include bracket

Fork photo eye, red/green light



Fork photo eye, infrared light



Slot width	2 mm	
Operational voltage	DC 10 to 30 V	
Output current	100 mA	
Current input (no load)	< 55 mA	
Operating frequency	6 kHz	
Switching time	80 µs	
LED	Switch status (yellow)	
Standard target	-	
Transmitter (type of light)	Green/red	IR
Housing material	Pressure-cast aluminum	
Degree of protection	IP 65	
Weight	115 g	

M 8 plug, 4-pole, type B pnp/npn, light-ON or dark-ON function

Order No.	Price	Wiring diagram	Order No.	Price	Wiring diagram
	1 unit	(see page 10/176)		1 unit	(see page 10/176)
▶ 3RG75 02-7RH57		24	▶ 3RG75 02-7RH58		24

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

L 18

Transmission range 50 m

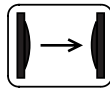


Visible laser light
DC 10 to 30 V
Cable or plug M 12
IP 65
Solid state output
Temperature range -10 °C to +60 °C
Temperature coefficient 0.1%/K

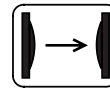
Laser protection class 2

Delivery includes focussing and adjusting tool but does not include bracket

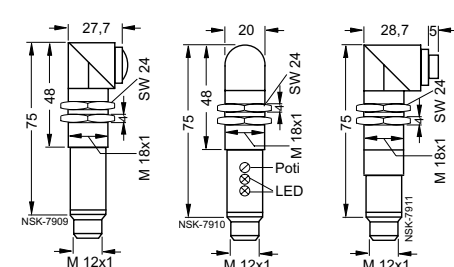
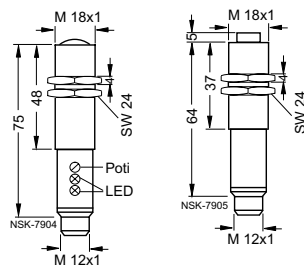
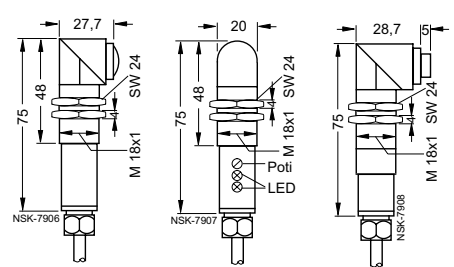
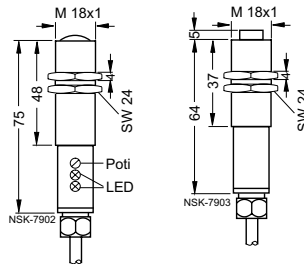
Laser thru-beam sensors



Straight optic



Rectangular optic



Transmission range	50 m
Operational voltage	DC 10 to 30 V
Output current	200 mA
Current input (no load)	Transmitter ≤ 10 mA, receiver ≤ 15 mA typ.
Operating frequency	6 kHz
Switching time	≤ 83 μs
LED	Operational voltage (green), switching state indication (yellow), surplus light emission (red)
Standard target	-
Transmitter (type of light)	Laser light 660 nm (visible)
Housing material	Brass, nickel-plated
Degree of protection	IP 65
Weight (cable/plug)	75 g/175 g

Receiver

Cable 3 m, PUR, 4 x 0.25 mm² pnp, light-ON and dark-ON function

Order No.	Price	Wiring diagram
	1 unit	(see page 10/176)

▶ 3RG71 35-0CC00	5
▶ 3RG71 35-0CD00	6

M 12 plug, 4-pole, type F pnp, light-ON and dark-ON function

▶ 3RG71 35-3CC00	5
▶ 3RG71 35-3CD00	6

pnp, light-ON and surplus light emission

Transmitter

Cable 3 m, PUR, 4 x 0.25 mm²

▶ 3RG71 35-0BE00	9
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M 12 plug, 4-pole, type F

▶ 3RG71 35-3BE00	9
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Accessories

Mounting bracket for L 18

▶ 3RX7 300

Order No.	Price	Wiring diagram
	1 unit	(see page 10/176)

▶ 3RG71 75-0CC00	5
▶ 3RG71 75-0CD00	6

▶ 3RG71 75-3CC00	5
▶ 3RG71 75-3CD00	6

▶ 3RG71 75-0BE00	9
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▶ 3RG71 75-3BE00	9
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When using the L 18 series with large transmitting ranges, we recommend the use of the adjustable 3RX7 300 mounting bracket. With this special mounting bracket the Laser-BERO can be adjusted exactly.

Delivery

▶ Preferred type.

Longer cable lengths can be ordered if required. In this case, add "-Z" to the Order No. and indicate the required cable length in plain text.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

L 50

Sensing range 30 to 150 mm
(diffuse sensor with background suppression)



Transmission range 12 m
(reflex sensor)

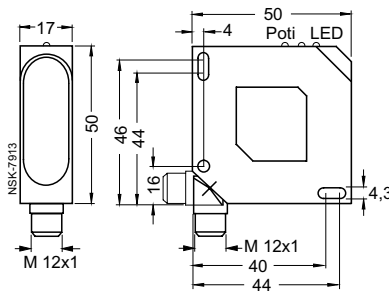
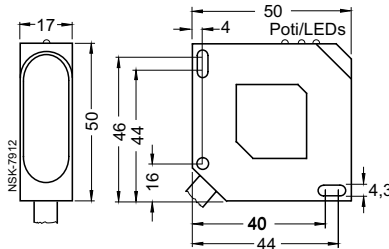
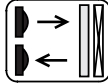
Visible laser light
M 12 plug or cable

Solid state output
Temperature range -20 °C to +45 °C
Temperature coefficient 0.1%/K

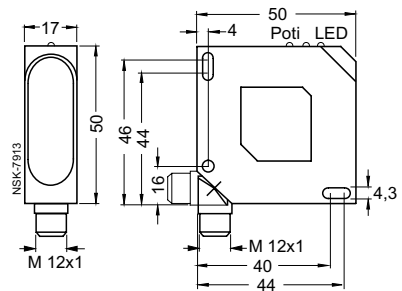
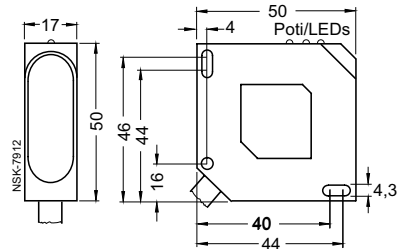
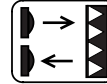
Laser protection class 2

Delivery does not include bracket
and reflector

Laser diffuse sensors with background suppression



Laser reflex sensors



Sensing range/transmission range	30 to 150 mm	12 m
Operational voltage	DC 10 to 30 V (max. 10% residual ripple)	
Output current	200 mA	
Current input (no load)	≤ 50 mA	
Operating frequency	2.5 kHz	
Switching time	≤ 200 μs	
LED	Operational voltage (green), switching state indication (yellow), surplus light emission (red)	
Standard target	100 mm × 100 mm (white)	
Transmitter (type of light)	Laser light 670 nm	
Housing material	ABS impact resistant	
Degree of protection	IP 67	
Weight (cable/plug)	140 g/40 g	145 g/45 g

		Order No.	Price	Wiring diagram (see page 10/176)	Order No.	Price	Wiring diagram (see page 10/176)
Cable 2 m, PUR, 4 x 0.25 mm ²	pnp, light-ON and dark-ON function	▶ 3RG70 56-0CC00	1 unit	5	▶ 3RG70 57-0CC00	1 unit	5
	pnp, light-ON and surplus light emission	▶ 3RG70 56-0CD00		6	▶ 3RG70 57-0CD00		6
	nnp, light-ON and dark-ON function	▶ 3RG70 56-0HC00		5	▶ 3RG70 57-0HC00		5
	nnp, light-ON and surplus light emission	▶ 3RG70 56-0HD00		6	▶ 3RG70 57-0HD00		6
M 12 plug, 4-pole, type F	pnp, light-ON and dark-ON function	▶ 3RG70 56-3CC00		5	▶ 3RG70 57-3CC00		5
	pnp, light-ON and surplus light emission	▶ 3RG70 56-3CD00		6	▶ 3RG70 57-3CD00		6
	nnp, light-ON and dark-ON function	▶ 3RG70 56-3HC00		5	▶ 3RG70 57-3HC00		5
	nnp, light-ON and surplus light emission	▶ 3RG70 56-3HD00		6	▶ 3RG70 57-3HD00		6

Accessories

Mounting bracket for L 50

▶ 3RX7 302

Delivery

▶ Preferred type.

Longer cable lengths can be ordered if required. In this case, add "-Z" to the Order No. and indicate the required cable length in plain text.

3RG7 Opto-BERO Photoelectric Proximity Switches

Selection and ordering data

Laser diffuse sensors with analog output

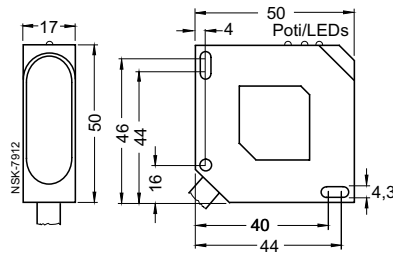
L 50

Sensing range 45 to 85 mm



- Resolution 80 μm/20 μm
- Visible laser light 670 nm
- Cable IP 67
- Voltage output 0 to 10 V
- Temperature range 0 °C to +45 °C
- Temperature drift 18 mm/K

Laser protection class 2
Delivery does not include bracket



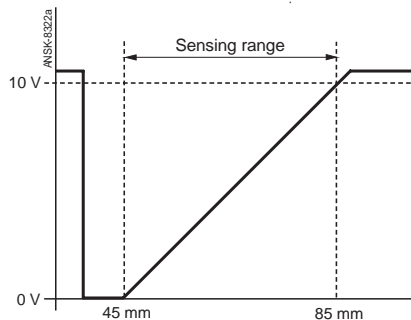
Sensing range	45 to 85 mm	
Resolution	80 μm	20 μm
Linearity	< 1%	
Operational voltage	DC 18 to 28 V	
Analog output	0 to 10 V / max. 3 mA	
Current input (no load)	≤ 35 mA	
Operating frequency	500 Hz	50 Hz
Switching time	1 ms	10 ms
LED	Operational voltage (green), surplus light emission (red)	
Size of measurement area at 65 mm	< 0.8 mm Ø	
Housing material	ABS impact resistant	
Degree of protection	IP 67	
Weight	280 g	

	Order No.	Price	Wiring diagram (see page 10/176)	Order No.	Price	Wiring diagram (see page 10/176)
Cable 6 m, PVC 4 x 0.34 mm ² screened Analog output 0 ... 10 V, increasing	▶ 3RG70 56-1CM00	1 unit	37	▶ 3RG70 56-1CM03	1 unit	37
M 12 plug, 4-pole, type F Analog output 0 ... 10 V, increasing	▶ 3RG70 56-3CM00		37	▶ 3RG70 56-3CM03		37

Accessories

Cable plug, screened 4 x 0.34 mm ²	▶ 3RX1 680
Angular cable plug, screened 4 x 0.34 mm ²	▶ 3RX1 681
Mounting bracket for L 50	▶ 3RX7 302

Curves



Delivery
▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

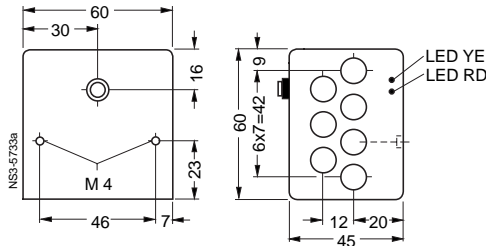
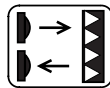
Selection and ordering data

Light array

Sensing range 1.4 m

Modulated red light (polarized, visible)
 7 light beams
 Autocollimation
 DC 12 to 36 V
 M 8 plug
 IP 54
 Solid state output
 Temperature range $-10\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$
 Temperature coefficient 0.1%/K

Delivery does not include reflector



Conveying direction →

Sensing range	1.4 m
Operational voltage	DC 12 to 36 V
Output current	Max. 200 mA
Current input (no load)	< 30 mA typ.
Operating frequency	50 Hz
Switching time	10 ms
LED	Switching state indication (yellow), dirt control (red)
Standard target	Reflector type R45, 3RX7 924
Transmitter (type of light)	LED red 660 nm (visible, polarized)
Housing material	Plastic glass-fibre-reinforced (PBTP, Crastin)
Degree of protection	IP 54
Weight (cable/plug)	120 g

M 8 plug, 4-pole, pnp, dark-ON function and surplus light emission.
 The output is switched through if at least one of the seven light beams is interrupted.

Order No.	Price	Wiring diagram
	1 unit	(see page 10/176)
▶ 3RG70 71-7CD27		6

Delivery

▶ Preferred type.

3RG7 Opto-BERO Photoelectric Proximity Switches

Technical data

	Solid state output	Relay output (K 80)	Laser-BERO (L18, L 50)
Voltage drop at 200 mA	Max. 2.0 V	–	Max. 2.4 mA
Operating capacity	Max. 200 mA	2 A	Max. 200 mA
Blocking output current	Max. 0.1 mA	–	Max. 0.1 mA
Overload protection	Built-in	Not available	Built-in
Overvoltage protection	Built-in	–	Built-in
Short-circuit protection	Built-in	Fuse necessary	Built-in
Availability delay	Max. 20 ms	Max. 300 ms	Max. 300 ms
Max. cable length	Max. 250 m	Max. 250 m	Max. 100 m
Hysteresis (typical) for diffuse sensors	10%		5%
Repeat precision for diffuse sensors	5%		5%
Sensitivity to external light in acc. with DIN	Sunlight Halogen light	10,000 Lux 3,000 Lux	

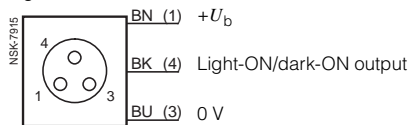


The use of Opto-BERO is not permitted for applications where the safety of persons is dependent on the function of these units!

NSK-7940a

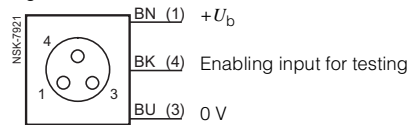
Wiring diagrams

Fig. 1



M 8 plug
type A, C, D
Cable

Fig. 2



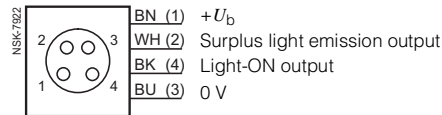
M 8 plug
type A, C, D
Cable

Fig. 3



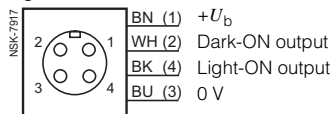
M 8 plug
type B
Cable

Fig. 4



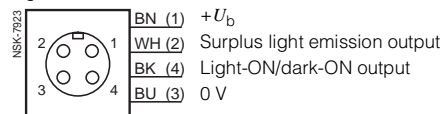
M 8 plug
type B
Cable

Fig. 5



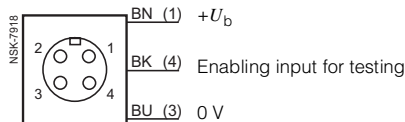
M 12 plug
type F, K, L
Cable

Fig. 6



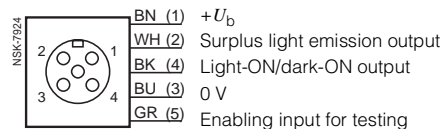
M 12 plug
type F, K, L
Cable

Fig. 7



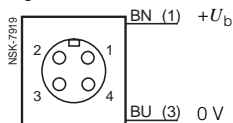
M 12 plug
type E, F, H, J,
K, L
Cable

Fig. 8



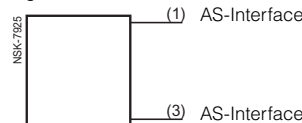
M 12 plug
type G, M

Fig. 9



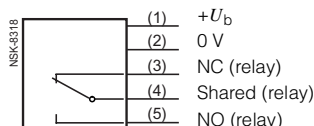
M 12 plug
type E, F, H, J,
K, L, M
Cable

Fig. 10



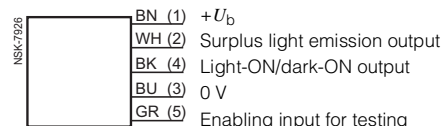
AS-Interface
FK terminal

Fig. 11



Screw terminals

Fig. 12



Screw terminals

BK= black
BN= brown
BU= blue
GR= grey
WH= white

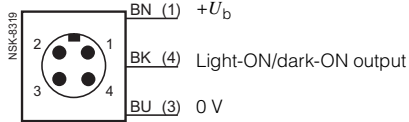
3RG7 Opto-BERO Photoelectric Proximity Switches

1

Wiring diagrams

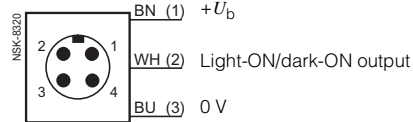
2

Fig. 13



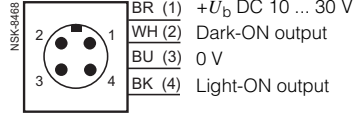
M 12 plug
type E, F, H, J,
K, L, N
Cable

Fig. 14



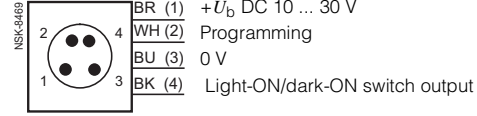
M 12 plug
type E, F, H, J,
K, L, N
Cable

Fig. 15



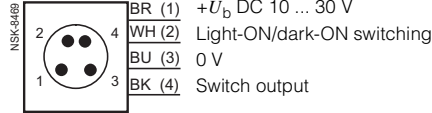
M 12 plug
type E, F, H, J,
K, L, N

Fig. 16



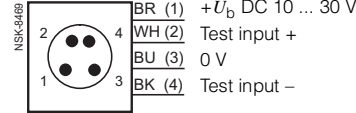
M 8 plug
type B
4-pole

Fig. 17



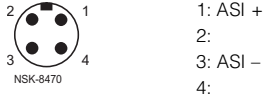
M 8 plug
type B
4-pole

Fig. 18



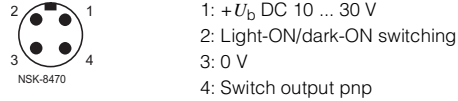
M 8 plug
type B
4-pole

Fig. 19



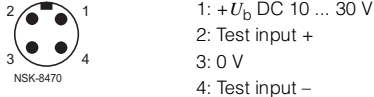
M 12 plug
type E, F, H, J,
K, L, N

Fig. 20



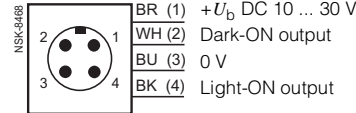
M 12 plug
type E, F, H, J,
K, L, N

Fig. 21



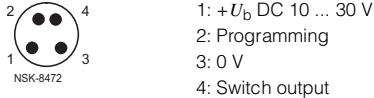
M 12 plug
type E, F, H, J,
K, L, N

Fig. 22



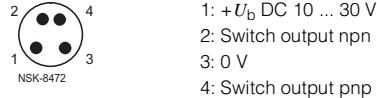
M 12 plug
type E, F, H, J,
K, L, N

Fig. 23



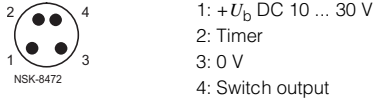
M 8 plug
type B
4-pole

Fig. 24



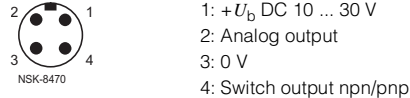
M 8 plug
type B
4-pole

Fig. 25



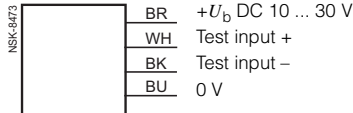
M 8 plug
type B
4-pole

Fig. 26



M 12 plug
type E, F, H, J,
K, L, N

Fig. 27



Cable

Fig. 28



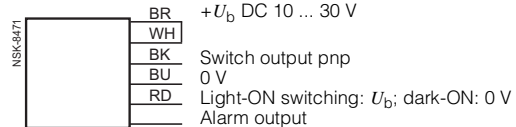
Cable

Fig. 29



Cable

Fig. 30



Cable

- BK= black
- BN= brown
- BU= blue
- GR= grey
- RD= red
- WH= white

3

4

5

6

7

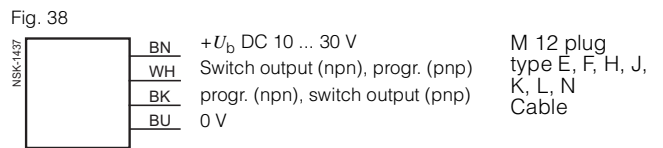
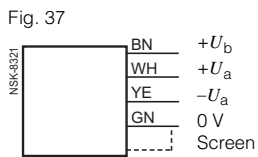
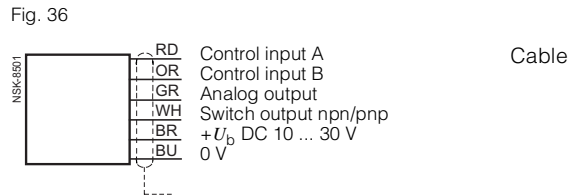
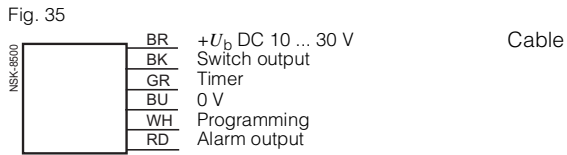
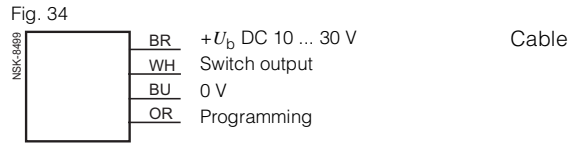
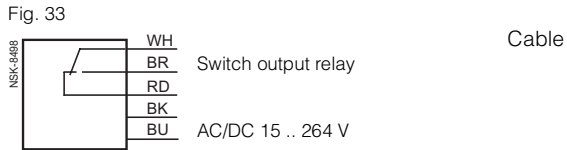
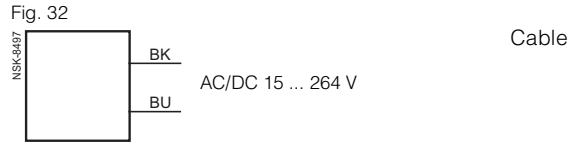
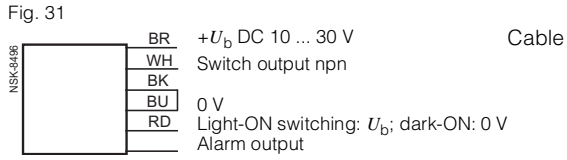
8

9

10

3RG7 Opto-BERO Photoelectric Proximity Switches

Wiring diagrams



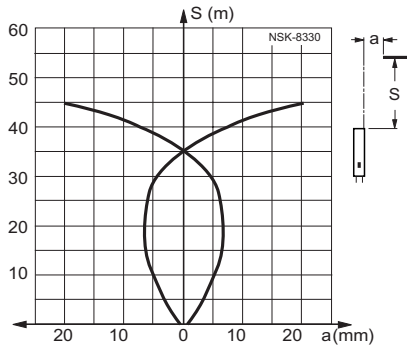
- BK = black
- BN = brown
- BU = blue
- GR = grey
- RD = red
- WH = white
- YE = yellow

3RG7 Opto-BERO Photoelectric Proximity Switches

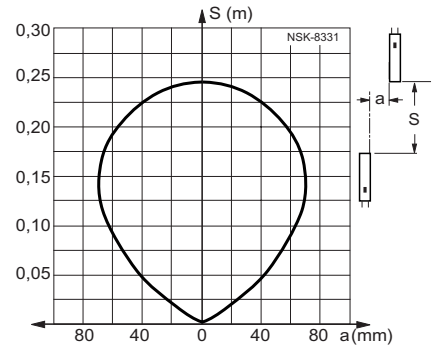
Switching zones

Form D 4, M 5

Diffuse sensor

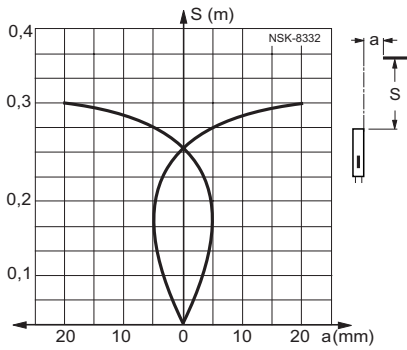


Thru-beam sensor

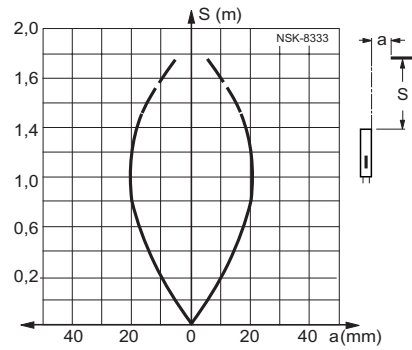


Form M 12

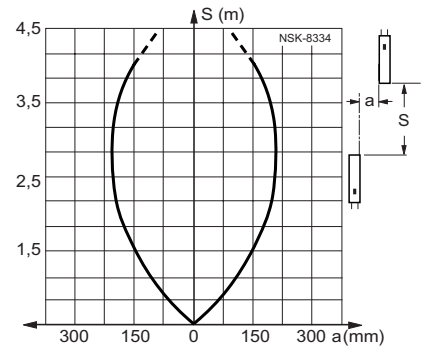
Diffuse sensor



Reflex sensor

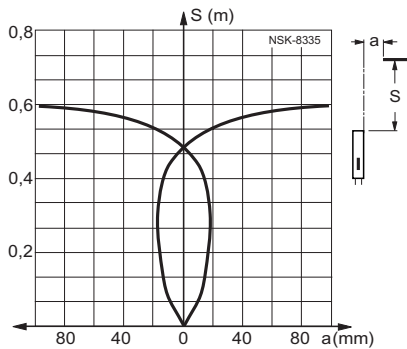


Thru-beam sensor

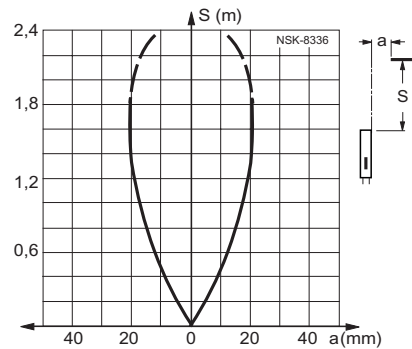


Form M 18

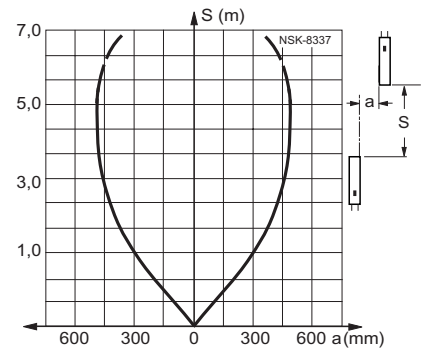
Diffuse sensor



Reflex sensor



Thru-beam sensor

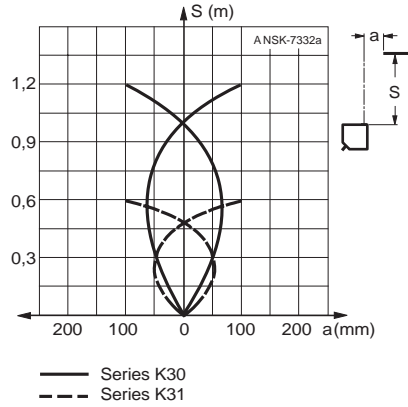


3RG7 Opto-BERO Photoelectric Proximity Switches

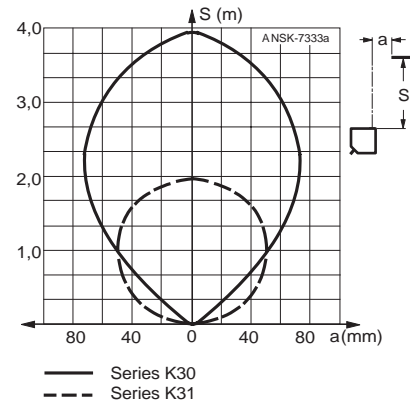
Switching zones

Form K 30, K31

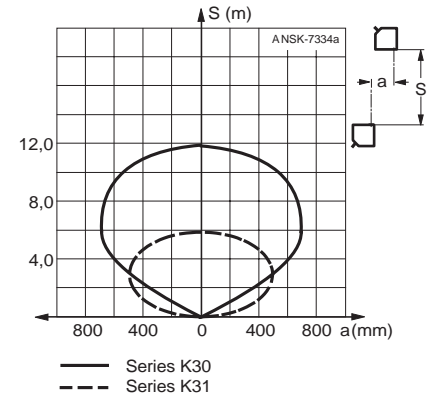
Diffuse sensor



Reflex sensor

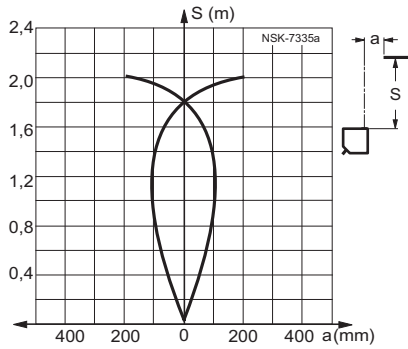


Thru-beam sensor

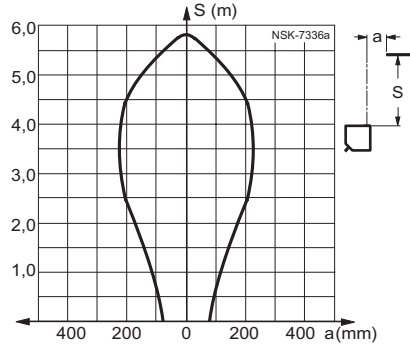


Form K 40

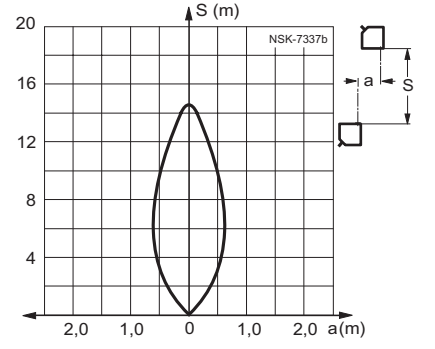
Diffuse sensor



Reflex sensor

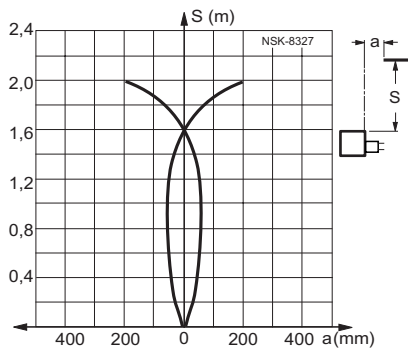


Thru-beam sensor

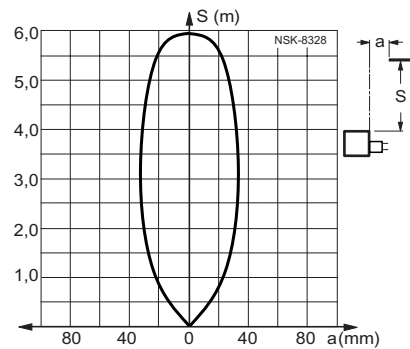


Form K 80

Diffuse sensor



Reflex sensor



Thru-beam sensor

