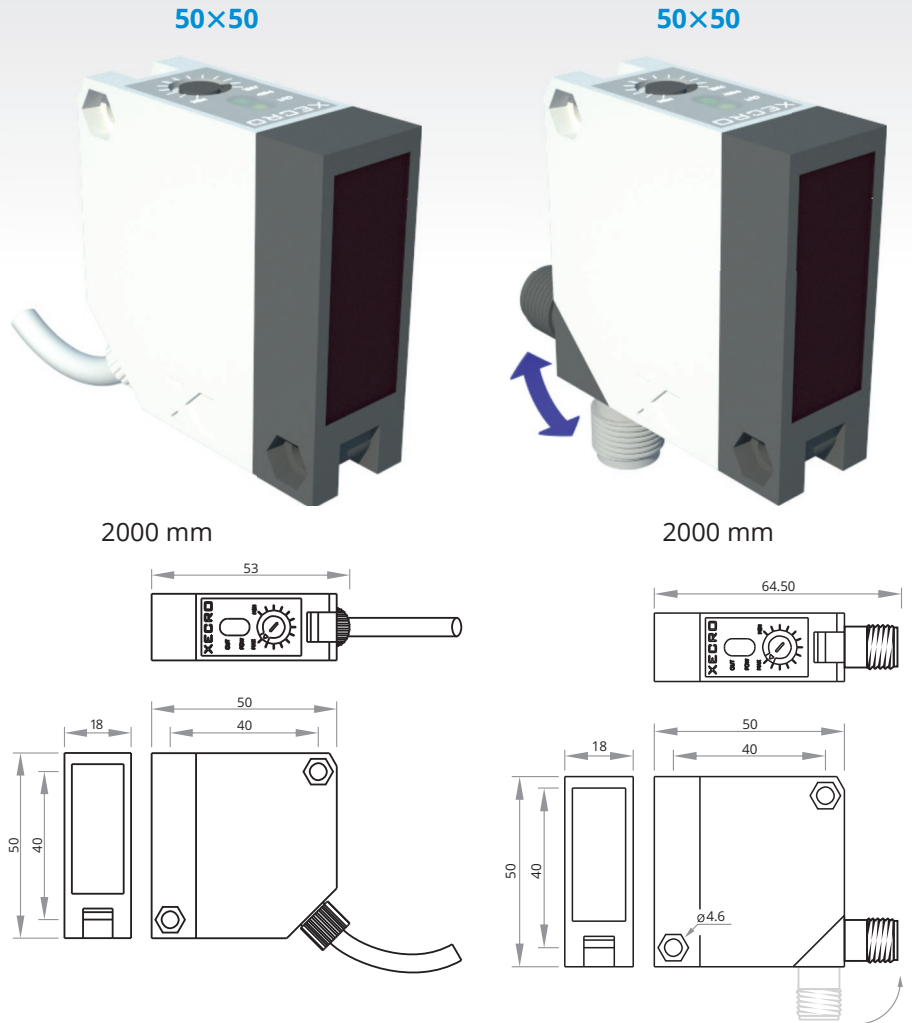
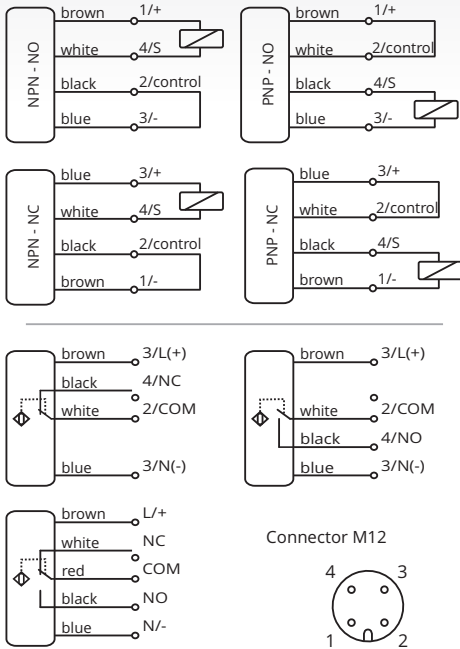


Wiring diagrams

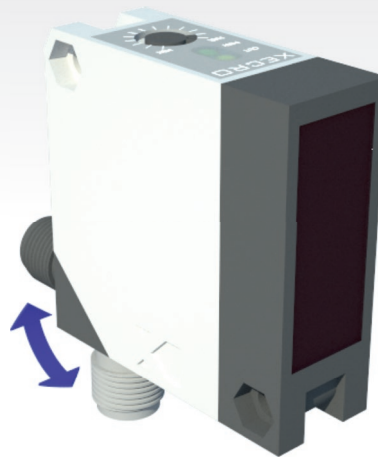


Resolution	Diffuse reflective		Diffuse reflective	
Operating distance	300...2000 mm	300...2000 mm	300...2000 mm	300...2000 mm
Light source	infrared light	infrared light	infrared light	infrared light
Output polarity and function	PNP, NPN, NO+NC	relay, NO+NC	PNP, NPN, NO+NC	relay, NO, NC
Operating voltage	10...30 V _{DC}	24...240 V _{UC}	10...30 V _{DC}	24...240 V _{UC}
Reverse polarity protection	built-in	built-in	built-in	built-in
Current consumption	<37 mA	<2.2 W	<37 mA	<2.2 W
Current load capability	200 mA	1 A @ 230 V _{AC}	200 mA	1 A @ 230 V _{AC}
Short circuit protection	built-in, self-resetting		built-in, self-resetting	
Voltage drop	<2 V @ 200 mA	—	<2 V @ 200 mA	—
Switching frequency	500 Hz	10 Hz	500 Hz	10 Hz
Response time	<1 ms	<25 ms	<1 ms	<25 ms
Hysteresis	≈10%	≈10%	≈10%	≈10%
Operating temperature	-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C
Ambient light immunity	10000 lux	10000 lux	10000 lux	10000 lux
Protection class	IP65	IP65	IP65	IP65
Housing material	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA
Connection	PVC, 5-pole, 2 m	PVC, 5-pole, 2 m	connector M12, 4-pole	connector M12, 4-pole
Output indicator	integrated	integrated	integrated	integrated
PNP, NPN, NO, NC programmable	OD50-D2PNCO-A2P		OD50-D2PNCO-A12	
Relay SPST, NO				OD50-D2AO-A12
Relay SPST, NC				OD50-D2AC-A12
Relay SPDT, NO+NC		OD50-D2ACO-A2P		
Transmitter				
Mouting bracket	included	included	included	included
Recommended connecting cable			M12-4...	M12-4...

50×50

50×50

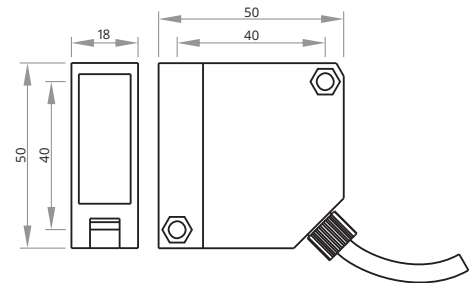
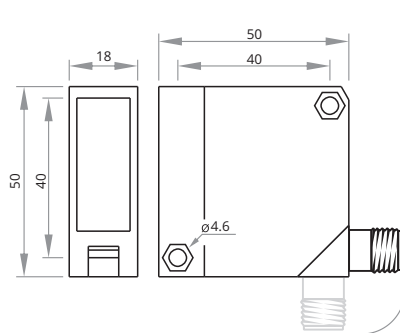
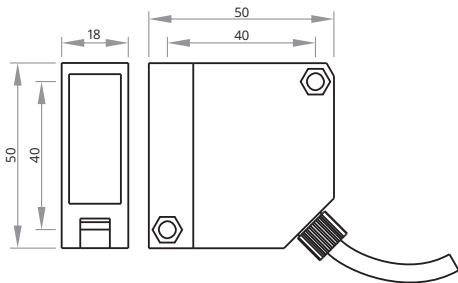
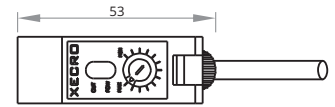
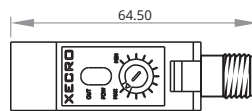
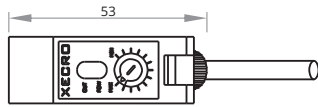
50×50



6000 mm

6000 mm

10000 mm



Polarized reflective

6000 mm	6000 mm
infrared light	infrared light
PNP, NPN, NO+NC	relay, NO+NC
10...30 V _{DC}	24...240 V _{UC}
built-in	built-in
<37 mA	<2.2 W
200 mA	1 A @ 230 V _{AC}
built-in, self-resetting	built-in, self-resetting
<2 V @ 200 mA	—
500 Hz	10 Hz
<1 ms	<25 ms
≈10%	≈10%
−25...55 °C	−25...55 °C
10000 lux	10000 lux
IP65	IP65
ABS, lens PMMA	ABS, lens PMMA
PVC, 5-pole, 2 m	PVC, 5-pole, 2 m integrated

Polarized reflective

6000 mm	6000 mm
infrared light	infrared light
PNP, NPN, NO, NC	relay, NO, NC
10...30 V _{DC}	24...240 V _{UC}
built-in	built-in
<37 mA	<2.2 W
200 mA	1 A @ 230 V _{AC}
built-in, self-resetting	built-in, self-resetting
<2 V @ 200 mA	—
500 Hz	10 Hz
<1 ms	<25 ms
≈10%	≈10%
−25...55 °C	−25...55 °C
10000 lux	10000 lux
IP65	IP65
ABS, lens PMMA	ABS, lens PMMA
connector M12, 4-pole integrated	connector M12, 4-pole integrated

Retro reflective

10000 mm	10000 mm
infrared light	infrared light
PNP, NPN, NO+NC	relay, NO+NC
10...30 V _{DC}	24...240 V _{UC}
built-in	built-in
<37 mA	<2.2 W
200 mA	1 A @ 230 V _{AC}
built-in, self-resetting	built-in, self-resetting
<2 V @ 200 mA	—
500 Hz	10 Hz
<1 ms	<25 ms
≈10%	≈10%
−25...55 °C	−25...55 °C
10000 lux	10000 lux
IP65	IP65
ABS, lens, PMMA	ABS, lens PMMA
PVC, 5-pole, 2 m integrated	PVC, 5-pole, 2 m integrated

OD50-P6PNCO-A12

OD50-N10PNCO-A2P

OD50-P6AO-A12
OD50-P6AC-A12

OD50-P6ACO-A2P

OD50-N10ACO-A2P

included

included

included
M12-4...

included
M12-4...

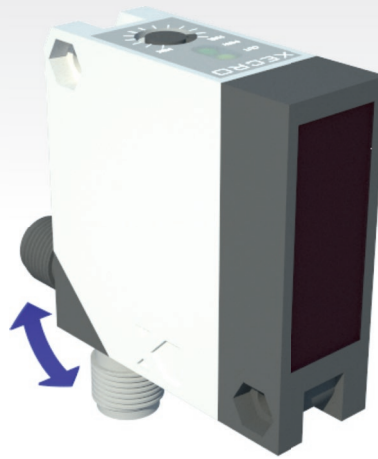
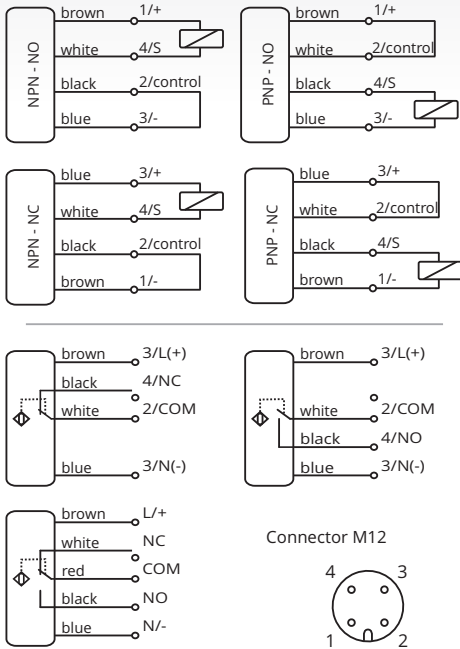
included

included

50×50

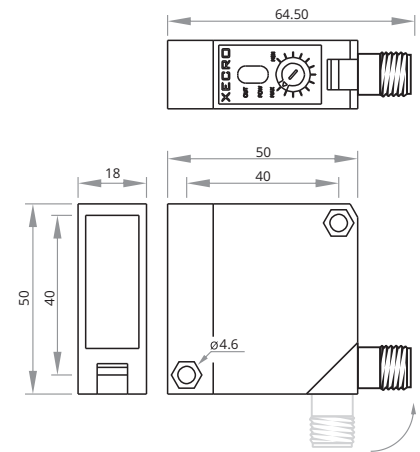
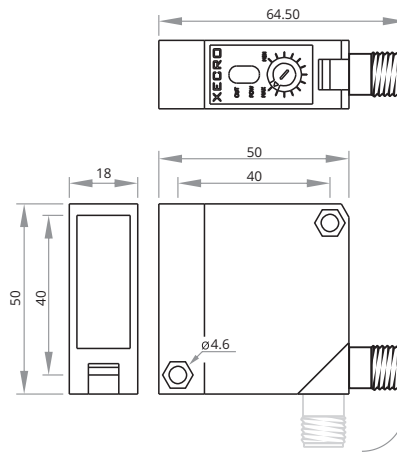
50×50

Wiring diagrams



10000 mm

18000 mm



Resolution	Retro reflective	Through beam	Through beam	Through beam
Operating distance	10000 m	10000 mm	18000 mm	18000 mm
Light source	infrared light	infrared light	infrared light	infrared light
Output polarity and function	PNP, NPN, NO+NC	Relay, NO+NC	PNP, NPN, NO+NC	Relay, NO+NC
Operating voltage	10...30 V _{DC}	24...240 V _{UC}	10...30 V _{DC}	24...240 V _{UC}
Reverse polarity protection	built-in	built-in	built-in	built-in
Current consumption	<37 mA	<2.2 W	<37 mA	<2.2 W
Current load capability	200 mA	1 A @ 230 V _{AC}	200 mA	1 A @ 230 V _{AC}
Short circuit protection	built-in, self-resetting	—	built-in, self-resetting	—
Voltage drop	<2 V @ 200 mA	—	<2 V @ 200 mA	—
Switching frequency	500 Hz	10 Hz	500 Hz	10 Hz
Response time	<1 ms	<25 ms	<1 ms	<25 ms
Hysteresis	≈10%	≈10%	≈10%	≈10%
Operating temperature	-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C
Ambient light immunity	10000 lux	10000 lux	10000 lux	10000 lux
Protection class	IP65	IP65	IP65	IP65
Housing material	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA
Connection	connector M12, 4-pole	connector M12, 4-pole	connector M12, 4-pole	connector M12, 4-pole
Output indicator	integrated	integrated	integrated	integrated
PNP, NPN, NO, NC programmable	OD50-N10PNCO-A12		OD50-R18PNCO-A12	
Relay SPST, NO		OD50-N10AO-A12		
Relay SPST, NC		OD50-N10AC-A12		
Relay SPDT, NO+NC				OD50-R18ACO-A12
Transmitter			OD50-T18D-A12	OD50-T18A-A12
Mouting bracket	included	included	included	included
Recommended connecting cable	M12-4...	M12-4...	M12-4...	M12-4...

MR82

MR80

MQ51

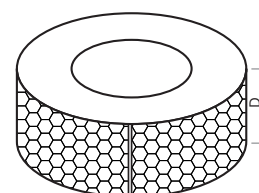
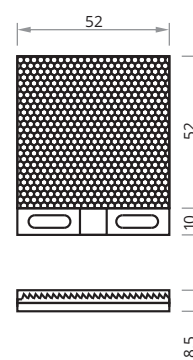
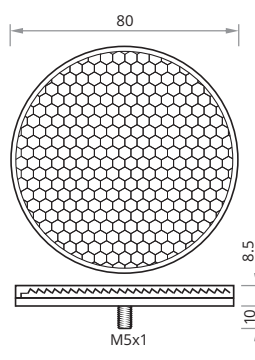
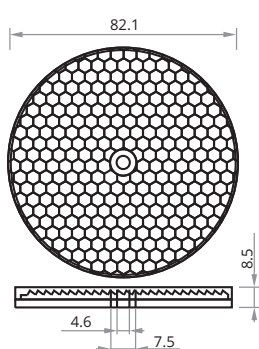
PRT

150,00%

100,00%

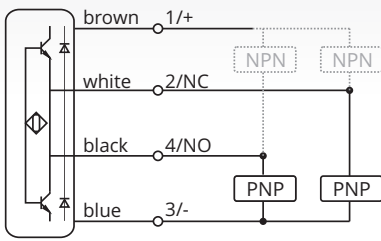
90,00%

70,00%

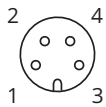


Specification	High performance	Standard round	Standard cubic	Performance tape
Distance with reference to	150.00%	100.00%	90.00%	70.00%
mounting	through hole	M5×1	through hole	self-adhesive
One reel				45.7 m (150 ft)
Cut tape				4.57 m (15 ft)
Cover material	PMMA	PMMA	PMMA	PMMA
Back cover material	PMMA	PMMA	PMMA	PMMA
Reflector	MR82	MR80	MQ51	MQ51
Complete reel, 25 mm wide				PTR25-W
Cut tape 25 mm				PTR25-W-50
Complete reel, 50 mm wide				PTR50-W
Cut tape 50 mm wide				PTR50-W-50
Complete reel, 100 mm wide				PTR100-W
Cut tape 100 mm wide				PTR100-W-50

Wiring diagrams



Connector M8

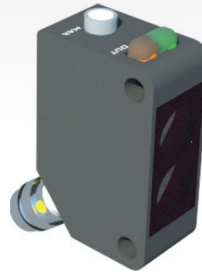


31×20



700 mm

31×20



700 mm

31×20

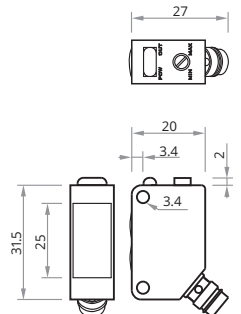
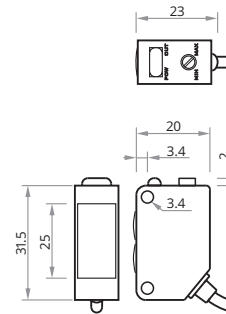
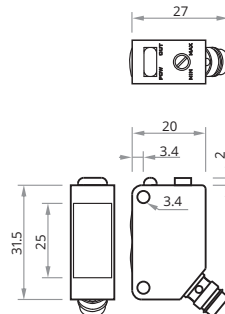
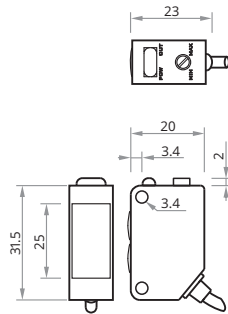


1800 mm

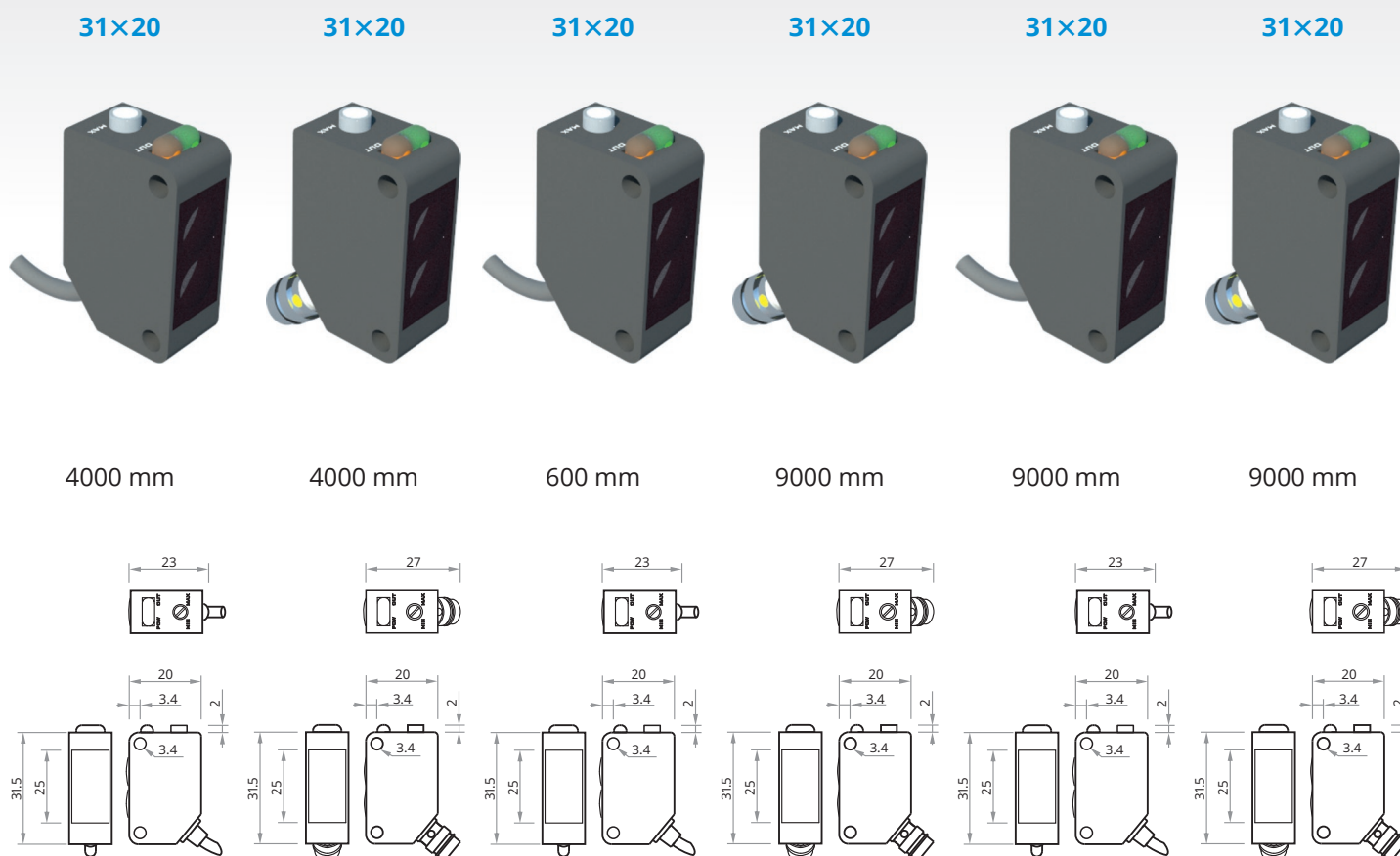
31×20



1800 mm



Resolution	Diffuse reflective	Diffuse reflective	Polarized reflective	Polarized reflective
Operating distance	10...700 mm	10...700 mm	100...1800 mm	100...1800 mm
Light source	infrared light	infrared light	infrared light	infrared light
Output function	NO+NC	NO+NC	NO+NC	NO+NC
Operating voltage	10...30 V _{DC}	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire
Reverse polarity protection	built-in	built-in	built-in	built-in
Current consumption	<37 mA	<37 mA	<37 mA	<37 mA
Current load capability	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
Short circuit protection	built-in, self-resetting	built-in, self-resetting	built-in, self-resetting	built-in, self-resetting
Voltage drop	<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA
Switching frequency	500 Hz	500 Hz	500 Hz	500 Hz
Response time	<1 ms	<1 ms	<1 ms	<1 ms
Hysteresis	≈13%	≈13	≈13%	≈13%
Operating temperature	-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C
Ambient light immunity	6000 lux	6000 lux	6000 lux	6000 lux
Protection class	IP67	IP67	IP67	IP67
Housing material	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA
Connection	PVC, 4-pole	connector M8, 4-pole	PVC, 4-pole	connector M8, 4-pole
Output indicator	integrated	integrated	integrated	integrated
PNP, NO+NC	OD31-D07PCO-A2P	OD31-D07PCO-A8	OD31-P2PCO-A2P	OD31-P2PCO-A8
NPN, NO+NC	OD31-D07NCO-A2P	OD31-D07NCO-A8	OD31-P2NCO-A2P	OD31-P2NCO-A8
Transmitter				
Mouting bracket	included	included	included	included
Recommended connecting cable		M8-4...		M8-4...



Retro reflective	Retro reflective	Translucent objects	Translucent objects	Through beam	Through beam
150...4000 mm	150...4000 mm	600 mm	600 mm	9000 mm	9000 mm
infrared light	infrared light	infrared light	infrared light	infrared light	infrared light
NO+NC	NO+NC	NO+NC	NO+NC	NO+NC	NO+NC
10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire	10...30 V _{DC} , 4-wire
built-in	built-in	built-in	built-in	built-in	built-in
<37 mA	<37 mA	<37 mA	<37 mA	<37 mA	<37 mA
100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting	100 mA, self-resetting
built-in, self-resetting	built-in, self-resetting	built-in, self-resetting	built-in, self-resetting	built-in, self-resetting	built-in, self-resetting
<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA	<2 V @ 100 mA
500 Hz	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
<1 ms	<1 ms	<1 ms	<1 ms	<1 ms	<1 ms
≈13%	≈13%	≈13%	≈13%	≈13%	≈13%
-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C	-25...55 °C
6000 lux	6000 lux	6000 lux	6000 lux	6000 lux	6000 lux
IP67	IP67	IP67	IP67	IP67	IP67
ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA	ABS, lens PMMA
PVC, 4-pole integrated	connector M8, 4-pole integrated	PVC, 4-pole integrated	connector M8, 4-pole integrated	PVC, 4-pole integrated	connector M8, 4-pole integrated
OD31-N4PCO-A2P	OD31-N4PCO-A8	OD31-L06PCO-A2P	OD31-L06PCO-A8	OD31-R9PCO-A2P	OD31-R9PCO-A8
OD31-N4NCO-A2P	OD31-N4NCO-A8	OD31-L06NCO-A2P	OD31-L06NCO-A8	OD31-R9NCO-A2P	OD31-R9NCO-A8
				OD31-T9D-A2P	OD31-T9D-A8
included	included	included	included	included	included
	M8-4...		M8-4...		M8-4...