

PC MICRO SENSOR SERIES CATALOG



SENSOR INDEX

MINIATURIZED VISBLE RED PHOTOELECTRIC SENSORS

General Description

2

Parts Matrix

3

ACCESSORIES

4

MODELS SPECIFICATIONS

4

BEAM PATTERN & STATISTICAL DIAGRAMS

5

DIMENSIONS

6

WIRING DIAGRAMS

7

MOUNTING BRACKET

8



INPROX SENSORS



MICRO LINE - PC RED MINIATURE SERIES - LONG DISTANCE

Technical Specifications



- n Miniature Structure with Long Distance Range
- n 20x11x31mm Micro Dimensions
- n 90° Optical Axis Orientation
- n NPN or PNP Output
- n Light/Dark Selectable Output
- n IRSensitivity Adjustment
- n IP67 Protection Degree
- n Visible Red Light Emission
- n CE and UL Approvals:



General description

The Micro Line PC optoelectric sensor series provides solutions for challenging applications and environments.

n Through-beam sensors with 15 meters of range

Micro Line Series Miniature Body Style
Long Range Units

n Polarized Retro Reflective sensors with an extended 5 meter range

Micro Line Series Miniature Body Style
Longest Industry Range 2X
Visible RED

n Diffuse Proximity scanners with 900mm range

Micro Line Series Miniature Body Style
Extended Range
Visible RED

n True Background Suppression with an adjustable 500mm range

Micro Line Series Miniature Body Style
Extended Range
Visible RED
Application Specific Sensor: background/reflectivity/color changes



Micro Line- PC Sensor Series

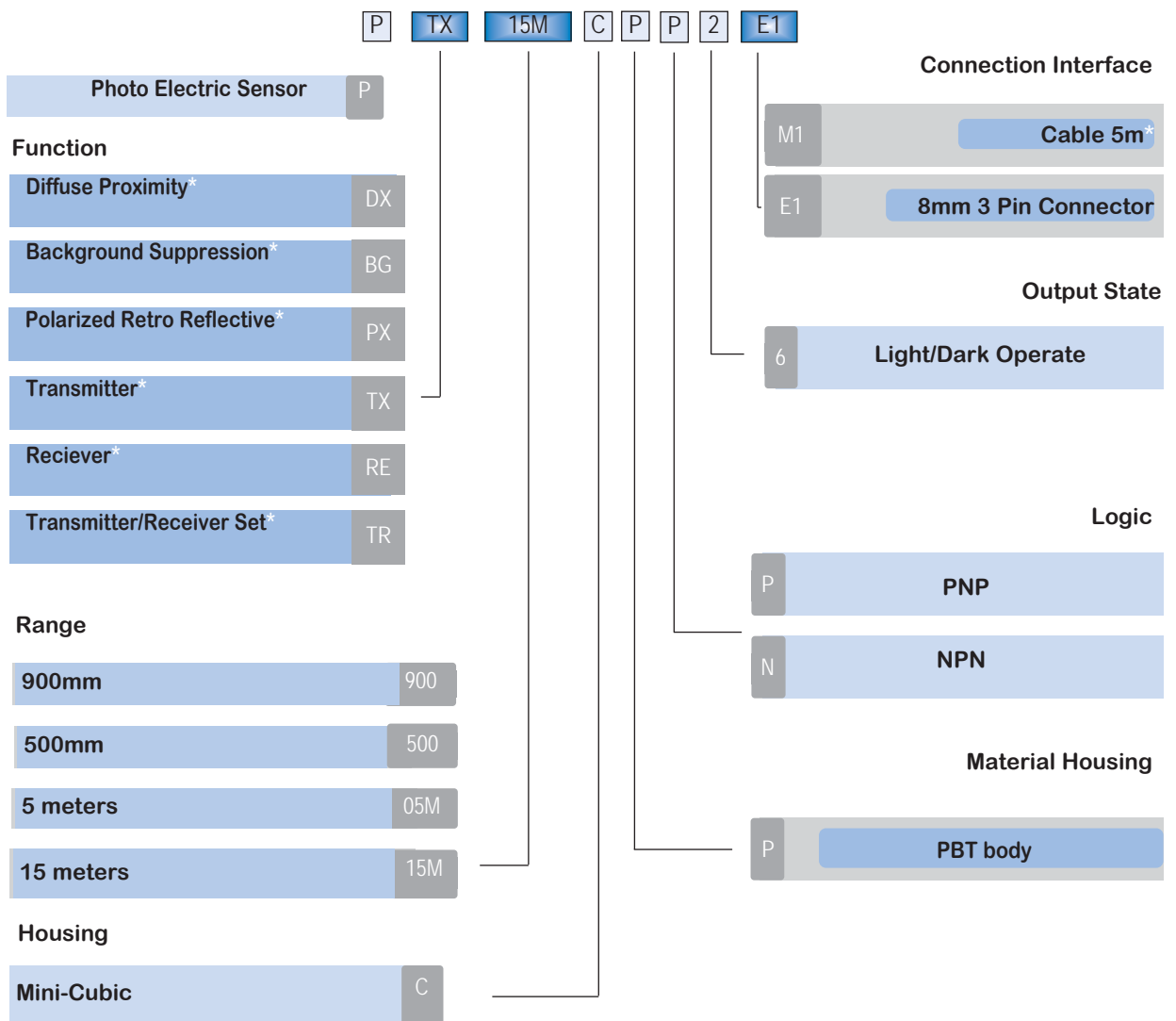
Typical Application Notes

- n Adjustable operating distances
- n Operating reserve indication display
- n Plug and Play options for BUS systems with M8 connector or Cable

The Micro Line Sensor Series (PC) offers the most versatile sensing modes for optimum application and environmental flexibility. The Micro Line series has diffuse proximity, background suppression and through-beam modes all integrated in our revolutionary micro body design.

The visible red LED makes for simple set-up and adjustment. Never guess where the beam is again. In addition the polarized retro reflective unit (PPX) has a 5 meter range; nearly twice as much as standard sensors. The Micro Line is perfect for manufacturing facilities, conveyor users, electronic assembly, packaging technologies just to name a few.

Parts Matrix



Available models

PBG500CPP6M1	PBG500CPN6M1	PDX900CPP6M1	PDX900CPN6M1	PPX05MCPN6M1	PPX05MCPN6E1
PBG500CPP6E1	PBG500CPN6E1	PDX900CPP6E1	PDX900CPN6E1	PPX05MCPN6E1	PPX05MCPN6E1
PTX15MCPN6M1	PTX15MCPN6M1	PTX15MCPN6E1	PTX15MCPN6E1		



ACCESSORIES

Code	Description
INHE00	Slotted masks for through-beam models
INVE00	Polarizing filter adapters for through beam models
OX122	Reflector 12.4x54 supplied with PPX mdels
IGO00	Mounting bracket/horizontal supplied with PC
IGO01	Mounting bracket vertical

TECHNICAL SPECIFICATIONS

Models TYPE	PBG Background	PDX Diffuse	PPX Pol. Retro	PRE Receiver	PTX Transmt.
Specifications	Background supp.	Diffuse Proximity	Pol. Retro Reflex	Receiver	Transmitter
Sensing Distance	15-500 mm(1)	800 mm (1)	4 m (2)	15 m	15 m
Dead Zone	2 mm	0	10 mm	0	0
Hysteresis	-	20% max	-	-	-
Scanning Distance	Potentiometer 270°				
Light Source	LED visible red				
Spot Diameter	50mm @ 300mm	250mm @ 2,5m		-	1600mm @ 12m
Light/Dark Selectable	Rotary Switch				
Supply Voltage	10 - 30 VDC max				
Ripple	<input type="checkbox"/> 10% Included				
No load Supply Current	30 mA max	30 mA max	30 mA max	20 mA max	15 mA max
Load Current Max	100 mA				
Output Voltage Drop	max @ 100mA 1.8 V -				
Output Type	PNP or NPN				
Switching Frequency	1000 Hz 1:1				
Response Time	<input type="checkbox"/> 0.5 ms with resistance load				
Time Delay before availability	100 ms max				
Supply Electrical Protections	Overvoltage pulses and reverse polarity				
Output Electrical Protections	Short circuit, oercurrent, overvoltage				
Operational Temperature Range	-25 - +55 °C				
Storage Temperature Range	-40 - +70 °C				
Temperature Drfit	±15% of scanning distance				
Ambient Light Immunity	10 000 Lux				
Enclosure Rating	3000 Lux HF Lamp -				
LED Indicators	IP 67				
	Yellow: output status				
	Green: operational reseve .1.1 -				
Housing/Optic Material	PBT Housing; PC Optics				
Cable/PVC 2 meters	3x0.18 ø 4mm				2x0,18 ø 4mm
Weight	3 g cable 9 g plug version				

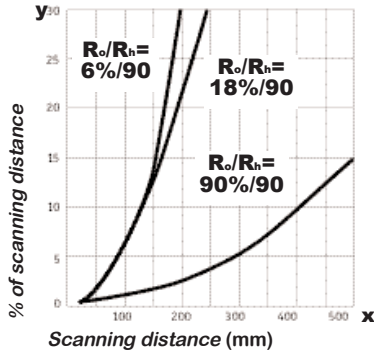
(1) White target 90% 100x100 mm
 (2) With OX110 reflector





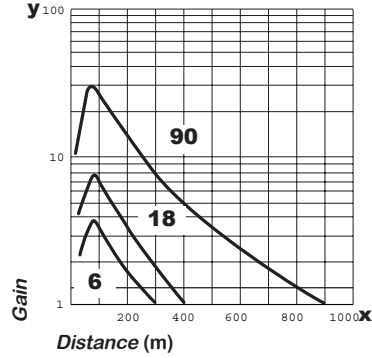
BEAM PATTERN FEATURE DIAGRAMS

n Background suppression



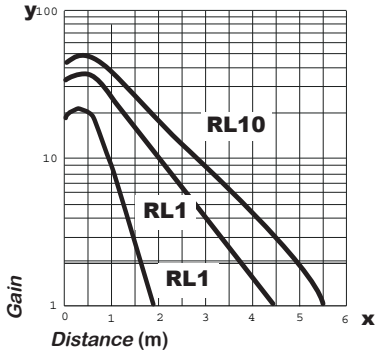
PBG

n Diffuse Proximity



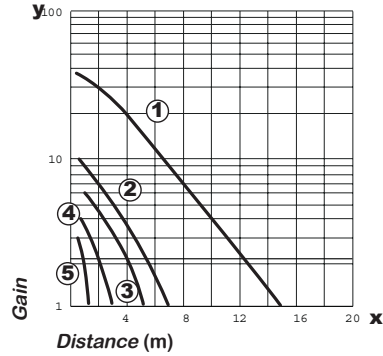
PDX

n Reflex with polarizing filter



PPX

n Through-beam



PTX

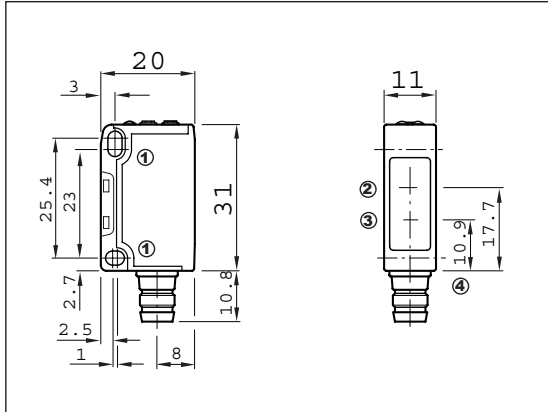
- ① Without slot
- ② With polarizing filter
- ③ With slot mask 2mm
- ④ With slot mask 1mm
- ⑤ With slot mask 0.5mm



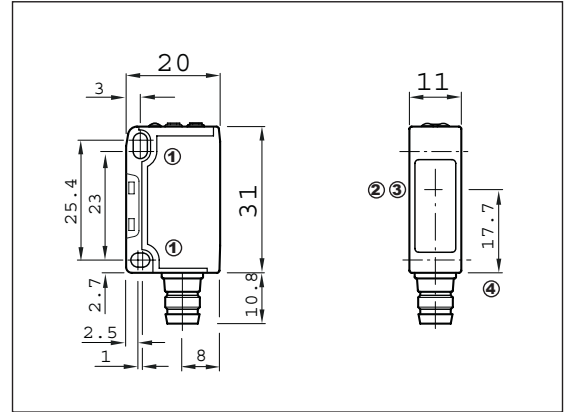


DIMENSIONS

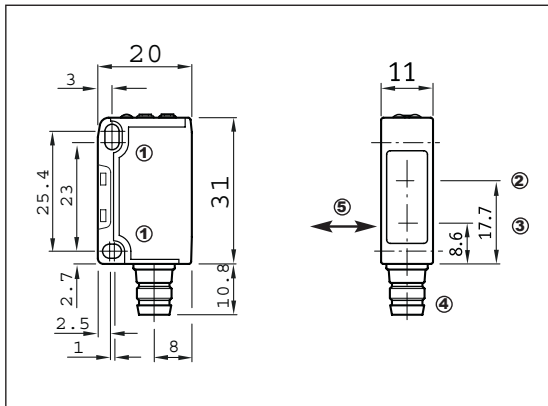
PDX, PPX Models



PTX Model



PBG Model



- ① Mounting hole 3.2mm for M3
- ② Optics center-receiver
- ③ Optics center-transmitter
- ④ M8 plug or connector cable
- ⑤ Standard direction of the material/object of detection

PDX, PPX, PTX Models

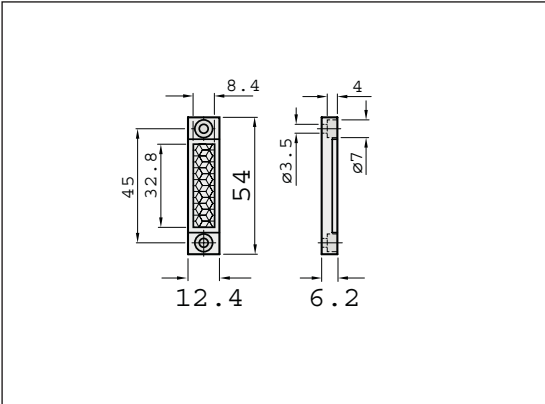


PBG Model



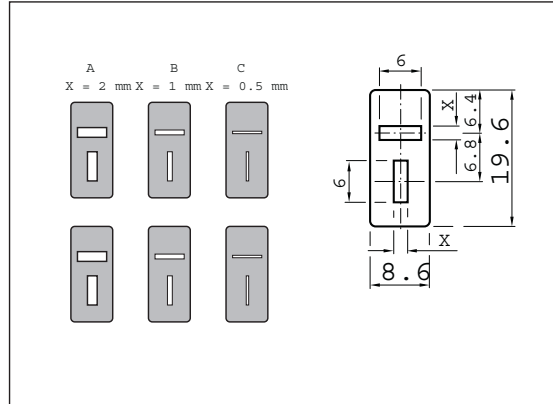


Reflector OX122



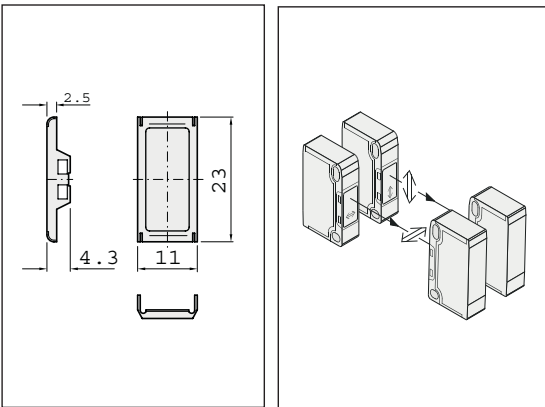
Supplied with PPX

Slotted Mask INHE00



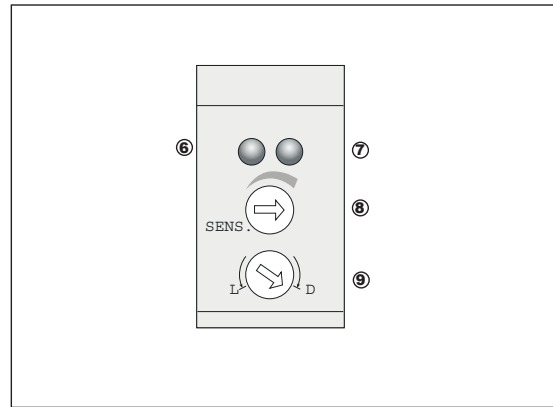
Optional with PTX

Polarizing filters INVE00



Optional with PTX

LED indicators and adjustments



- ⑥ Green LED: light reception with operation reserve >1.1
- ⑦ Orange LED: output signal
- ⑧ Sensitivity-scanning setting (270°)
- ⑨ Light/Dark switch

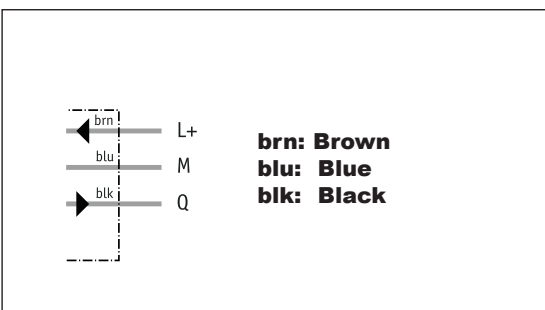


INPROX SENSORS

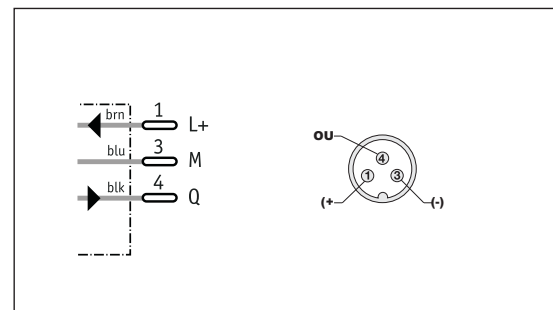


WIRING DIAGRAMS

Wiring diagrams-cable versions M1



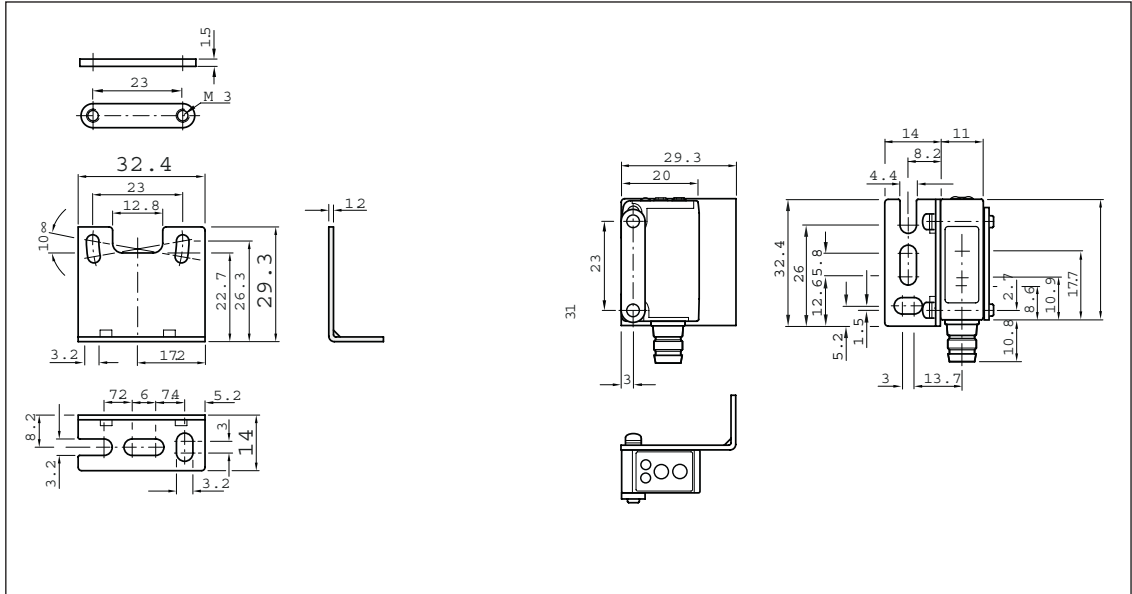
Wiring Diagrams-M8 connector E1



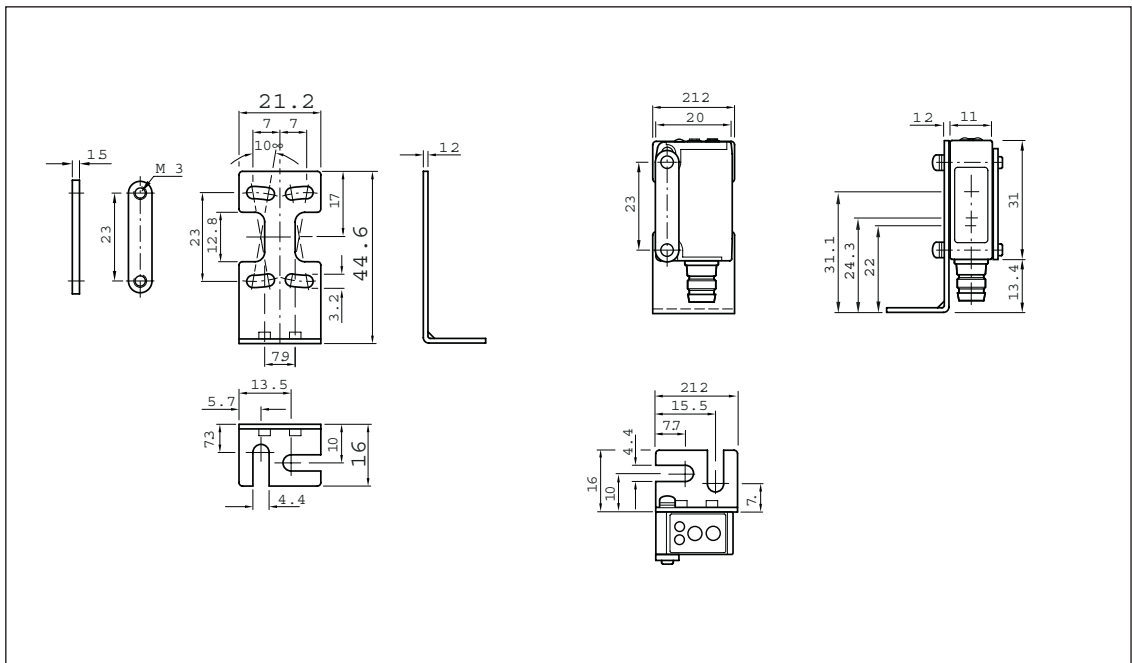


MOUNTING BRACKET

INHE00 Mounting Bracket/Horizontal Supplied



IGO01 Mounting Bracket/Horizontal Optional



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