

dimensions	<b>8 x 58 x 12mm</b>	
	<b>8 x 67 x 12mm</b>	
<b>through-beam sensors</b>	operating range	<b>2.5m</b>
<b>dif. reflection sensors</b>	sensing range	<b>40mm</b> <b>80mm</b>

- ✓ LED-display
- ✓ integrated amplifier
- ✓ high sampling frequency and sensing ranges
- ✓ connection with cable and M8-connector
- ✓ robust metal housing

**diffuse reflection sensors with intensity differentiation**



**description**

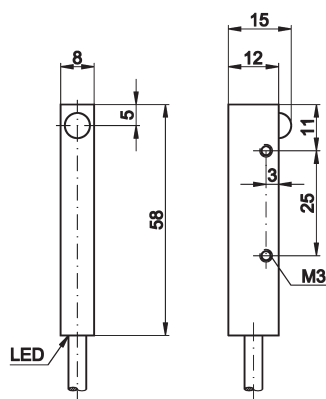
Optoelectronic sensors are indispensable components in all automated production processes. They are used in all applications where parts are to be detected, counted, measured or positioned in a way which does not involve contact and which is reliable and fast. The devices feature an aluminum housing and are often used in connection with a PLC for automatic production processes and machines. Through-beam sensors detect objects of any shape, regardless of their color. Diffuse reflection sensors that can differentiate between levels of intensity are suitable for, among other things, differentiating between white and black objects.

If, in the case of the receivers of through-beam sensors or diffuse reflection sensors the red LED flashes when the output is switched, the respective device is working without sufficient functional reserve, e.g. due to soiling or maladjustment. The red LED lights up if the output is securely switched.

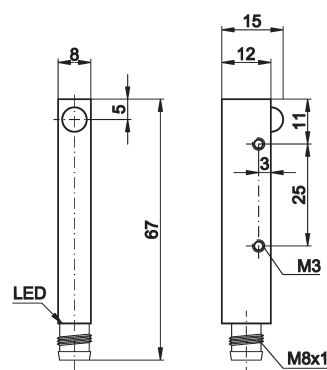
**application examples**

- ▶ checking the presence of various objects
- ▶ avoiding collision, in the case of feed movements
- ▶ monitoring object and stack heights
- ▶ limit switches, position switches and pulse generators

article-no.	OS110000	OS110070
version	through-beam transmitter	through-beam transmitter
operating range	2.5m	2.5m
connection	cable	connector
article-no.	OE110100	OE110170
version	through-beam receiver	through-beam receiver
output	pnp, dark-on mode	pnp, dark-on mode
connection	cable	connector



transmitter without LED



transmitter without LED

### TECHNICAL DATA

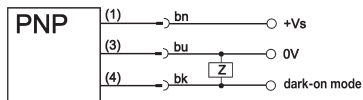
operating range	2.5m	2.5m
output *	pnp, dark-on mode	pnp, dark-on mode
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 50mA (transmitter), ≤ 25mA (receiver)	≤ 50mA (transmitter), ≤ 25mA (receiver)
output current (max. load) *	100mA	100mA
voltage drop (max. load) *	2.0V DC	2.0V DC
transmitting element (pulsed)	LED, infrared light	LED, infrared light
wavelength	880nm	880nm
response/decay time *	< 2.5ms	< 2.5ms
display (signal/reserve) *	red LED / red LED, flashing	red LED / red LED, flashing
interference suppression	-	-
short-circuit protection *	+	+
reverse polarity protection	+	+
dimensions	8x58x12mm	8x67x12mm
length (thread/complete)	- / 58mm	- / 67mm
housing material	aluminum	aluminum
lens material	PC	PC
operating temperature	-25 ... +65°C	-25 ... +65°C
degree of protection (EN 60529)	IP65	IP65
connection	2m PVC-cable, 3-wire	M8-connector, 3-pin
connection accessories	-	e.g. VK200071, 2m, PUR, angular

\* only receiver

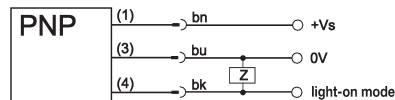
article-no.	OT110100	OT110170
version	diffuse reflection sensor, intensity	diffuse reflection sensor, intensity
sensing range	40mm	40mm
output	pnp, light-on mode	pnp, light-on mode
connection	cable	connector
article-no.	OT110105	OT110175
version	diffuse reflection sensor, intensity	diffuse reflection sensor, intensity
sensing range	80mm	80mm
output	pnp, light-on mode	pnp, light-on mode
connection	cable	connector
<b>TECHNICAL DATA</b>		
sensing range	see above	see above
output signal	pnp, light-on mode	pnp, light-on mode
operating voltage	10 ... 30V DC	10 ... 30V DC
current consumption (w/o load)	≤ 40mA	≤ 40mA
output current (max. load)	100mA	100mA
voltage drop (max. load)	2.0V DC	2.0V DC
transmitting element (pulsed)	LED, infrared light	LED, infrared light
wavelength	880nm	880nm
response/decay time	< 1ms	< 1ms
display (signal / reserve)	red LED / red LED, flashing	red LED / red LED, flashing
interference suppression	+	+
short-circuit protection	+	+
reverse polarity protection	+	+
dimensions	8x58x12mm	8x67x12mm
length (thread/complete)	- / 58mm	- / 67mm
housing material	aluminum	aluminum
lens material	PC	PC
operating temperature	-25 ... +65°C	-25 ... +65°C
degree of protection (EN 60529)	IP65	IP65
connection	2m PVC-cable, 3-wire	M8-connector, 3-pin
connection accessories	-	e.g. <b>VK200071</b> , 2m, PUR, angular

### connection

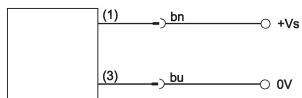
cable/connector devices, through-beam receiver



cable/connector devices, dif. reflection sensor



cable/connector devices, through-beam transmitter



**wire colors:** bn = brown (1), bu = blue (3), bk = black (4)

This data sheet contains the standard versions only. Kindly request the availability of other output- and connection functions.

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in catalog chapter „accessories“ under „cable sockets **ipf-SENSORFLEX**“ or search our website for „VK“.

**Warning:** Never use these devices in applications where the safety of a person depends on their functionality.

This data sheet as well as your personal contact can be found at [www.ipf-electronic.com](http://www.ipf-electronic.com)