

dimensions **15 x 30 x 30mm**
 plastic fiber optics through-beam sensor **up to 1000mm**
 dif. reflection sensor **up to 120mm**



- ✓ glass fiber reinforced plastic housing
- ✓ switching state display by LED: yellow
- ✓ LED indicator for functional reserve: green
- ✓ integrated amplifier
- ✓ high switching frequency and switching distances
- ✓ exclusive OR output or alarm output
- ✓ connection with M8-connector or cable

**miniature design
visible red light**



description

The devices in the **OL15** series are designed for the highest levels of performance with small dimensions (miniature housing). Despite the compact design, the user benefits from robust, industrial strength devices with all protective functions.

Fiber optics are fitted in front of the transmitter and receiver. They are the extended eye of the photosensor. As the fiber optics only have small dimensions and are flexible, scanning tasks in places which are difficult to access can be completed easily. In addition, no electrical voltage is transferred.

As such, fiber optics can also be used without particular precautions in areas at risk of explosion and in the presence of highly charged electrical and magnetic fields (high voltage

systems, electric welding equipment).

By selecting appropriately thin fibers, the smallest of objects can be detected. Using fiber optics, both the functions of the through-beam sensor as well as that of the diffuse reflection sensor can be realized.

The built-in functional reserve helps the user when aligning and setting the device. As such, soiling can additionally be spotted at an early stage and removed.

application examples

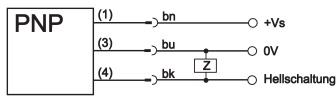
- ▶ detection of markings
- ▶ quality control of printing
- ▶ presence checks of metal pins
- ▶ foil width recognition

article-no. connection output	OL150105 cable pnp, light-on mode	OL150175 M8-connector pnp, light-on mode
TECHNICAL DATA		
operating range (through-beam sensor)	depending on used fiber optics up to 0.5m	depending on used fiber optics up to 0.5m
sensing range (dif. reflection sensor)	depending on used fiber optics up to 60mm	depending on used fiber optics up to 60mm
output signal	pnp, light-on mode	pnp, light-on mode
operating voltage	10 ... 36V DC	10 ... 36V DC
current consumption (w/o load)	≤ 15mA	≤ 15mA
output current (max. load)	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC
transmitting element (pulsed)	LED, red light	LED, red light
wavelength	660nm	660nm
hysteresis	< 10%	< 10%
norm trimming plate	100mm x 100mm, white	100mm x 100mm, white
response/decay time	0.5ms / 0.5ms	0.5ms / 0.5ms
switching frequency	1kHz	1kHz
display (signal/reserve)	yellow LED / green LED	yellow LED / green LED
sensitivity adjustment	12-turn potentiometer	12-turn potentiometer
short-circuit protection	+	+
reverse polarity protection	+	+
dimensions	15x30x30mm	15x30x30mm
housing material	PBTP	PBTP
operating temperature	-25 ... +55°C	-25 ... +55°C
degree of protection (EN 60529)	IP65	IP65
connection	2m PVC-cable, 3-wire	M8-connector, 3-pin
connection accessories	-	e.g. VK200075
mounting accessories (bracket)	AO000045	AO000045

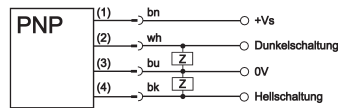
article-no.	OL150400	OL150470
connection	cable	M8-connector
output	pnp, light-on/dark-on mode	pnp, light-on/dark-on mode
article-no.	OL150700	OL150770
connection	cable	M8-connector
output	pnp, light-on mode / alarm output	pnp, light-on mode / alarm output
TECHNICAL DATA		
operating range (through-beam sensor)	depending on used fiber optics up to 1000mm	depending on used fiber optics up to 1000mm
sensing range (dif. reflection sensor)	depending on used fiber optics up to 120mm	depending on used fiber optics up to 120mm
output signal	see above	see above
operating voltage	10 ... 36V DC	10 ... 36V DC
current consumption (w/o load)	≤ 20mA	≤ 20mA
output current (max. load)	200mA	200mA
voltage drop (max. load)	2.0V DC	2.0V DC
transmitting element (pulsed)	LED, red light	LED, red light
wavelength	660nm	660nm
hysteresis	< 10%	< 10%
norm trimming plate	100mm x 100mm, white	100mm x 100mm, white
response/decay time	0.5ms / 0.5ms	0.5ms / 0.5ms
switching frequency	1kHz	1kHz
display (signal/reserve)	yellow LED / green LED	yellow LED / green LED
sensitivity adjustment	12-turn potentiometer	12-turn potentiometer
short-circuit protection	+	+
reverse polarity protection	+	+
dimensions	15x30x30mm	15x30x30mm
housing material	PBTP	PBTP
operating temperature	-25 ... +55°C	-25 ... +55°C
degree of protection (EN 60529)	IP65	IP65
connection	2m PVC-cable, 4-wire	M8-connector, 4-pin
connection accessories	-	e.g. VK200375
mounting accessories (bracket)	AO000045	AO000045

connection

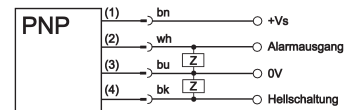
light-on mode



light-on/dark-on mode

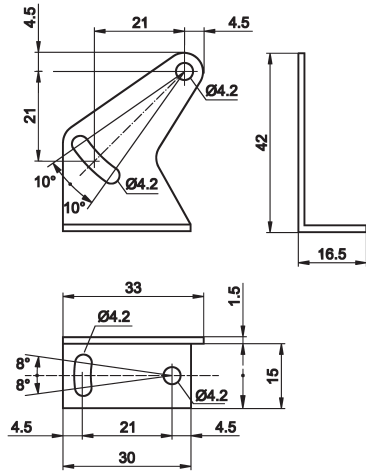


light-on mode, alarm output



wire colors: bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

mounting bracket AO000045



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

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

