

dimensions **32 x 32 x 13mm**
 dif. reflection sensor sensing range **up to 200mm**



- ✓ **robust zinc diecast housing**
- ✓ **high system of protection (EN 60529) IP67**
- ✓ **status display by LED**
- ✓ **fine adjustment display by LED**
- ✓ **integrated amplifier**
- ✓ **no (normally open) or nc (normally closed) function programmable**
- ✓ **high sampling frequency and sensing range**
- ✓ **mounting brackets included in the scope of delivery**
- ✓ **connection with cable**

background suppression by "3-beam distance measurement"



description

Optoelectronic proximity switches of the **OT32** type are robust diffuse reflection sensors with state-of-the-art electronics in a diecast housing and with a highly efficient background suppression.

A light beam is focused through the middle lens and pointed at an object. The beam reflected by the object hits an upper and a lower high precision non-spherical lens. The incident light beam is concentrated. The image of the object is then directed at the recognition elements (PSD) fitted above and below, which recognize the position of the object. Comparing the electronic values of a set-point entry with the values obtained from the object recognition elements results in very accurate distance measurement according to the three beam principle, called the triangulation principle! Diffuse reflection sensors with background suppression that apply the triangulation principle are used as limit value signals, position switches and pulse generators on auto-

mated machines and in production processes frequently in combination with a PLC.

They are good for non-contact detection of metal, glass, plastic (films!), wood, paper etc. Their sensing range is almost independent of color, shape or material. Erroneous operations caused by more distant objects (machine components, operating personnel) are reliably avoided thanks to the principle of "Three beam distance measurement". State-of-the-art film technology electronics in robust housings guarantee top operational safety and reliability. Perfect position recognition is still possible even if the lenses are very dirty.

application examples

- ▶ distance control
- ▶ position recognition
- ▶ color independent object recognition

article-no.	OT322300	OT322305
transmitting element (pulsed)	infrared	infrared
sensing range	20 ... 40mm	40 ... 200mm

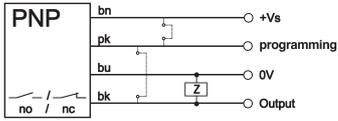
TECHNICAL DATA

sensing range (limits)	20 ... 40mm	40 ... 200mm
output signal	pnp, light-on mode / dark-on mode	pnp, light-on mode / dark-on mode
operating voltage	12 ... 24V DC	12 ... 24V DC
current consumption (w/o load)	≤ 30mA	≤ 30mA
output current (max. load)	100mA	100mA
voltage drop (max. load)	1.8V DC	1.8V DC
hysteresis	10% of the measuring distance	20% of the measuring distance
norm trimming plate	drawing paper white 1 x 1cm	drawing paper white 2 x 2cm
transmitting element (pulsed)	infrared	infrared
wave length	910nm	910nm
sampling frequency	< 250Hz	< 250Hz
display (signal)	yellow LED	yellow LED
sensitivity adjustment	potentiometer	potentiometer
short-circuit protection	-	-
reverse polarity protection	+	+
dimensions	32x32x13mm	32x32x13mm
housing material	zinc diecast	zinc diecast
front screen material	glass	glass
operating temperature	-25 ... +55°C	-25 ... +55°C
system of protection (EN 60529)	IP67	IP67
connection	2m PVC-cable, 4-wire	2m PVC-cable, 4-wire
mounting accessories (enclosed)	mounting bracket	mounting bracket

article-no.	OT322306	OT322307
transmitting element (pulsed)	red light	red light
sensing range	20 ... 40mm	40 ... 200mm
TECHNICAL DATA		
sensing range (limits)	20 ... 40mm	40 ... 200mm
output signal	pnp, light-on mode / dark-on mode	pnp, light-on mode / dark-on mode
operating voltage	12 ... 24V DC	12 ... 24V DC
current consumption (w/o load)	≤ 30mA	≤ 30mA
output current (max. load)	100mA	100mA
voltage drop (max. load)	1.8V DC	1.8V DC
hysteresis	10% of the measuring distance	20% of the measuring distance
norm trimming plate	drawing paper white 1 x 1cm	drawing paper white 2 x 2cm
transmitting element (pulsed)	red light	red light
wave length	660nm	660nm
sampling frequency	< 250Hz	< 250Hz
display (signal)	yellow LED	yellow LED
sensitivity adjustment	potentiometer	potentiometer
short-circuit protection	-	-
reverse polarity protection	+	+
dimensions	32x32x13mm	32x32x13mm
housing material	zinc diecast	zinc diecast
front screen material	glass	glass
operating temperature	-25 ... +55°C	-25 ... +55°C
system of protection (EN 60529)	IP67	IP67
connection	2m PVC-cable, 4-wire	2m PVC-cable, 4-wire
mounting accessories (enclosed)	mounting bracket	mounting bracket

connection

cable device



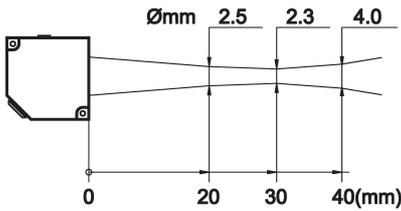
programming

bridge between pink / brown: light-on mode
 bridge between pink / blue: dark-on mode

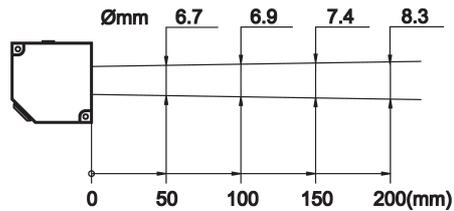
wire colors: bn = brown, pk = pink, bu = blue, bk = black

representation of the light beam diameter

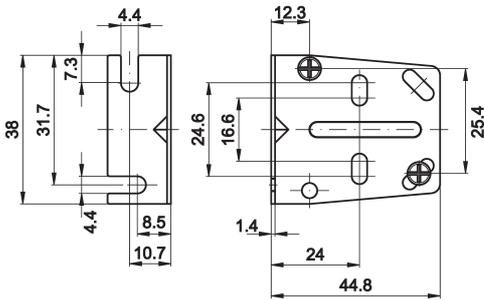
OT322300 / OT322306



OT322305 / OT3232307



mounting bracket included in the scope of delivery



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.

You also find this data sheet, as well as contact details under www.ipf-electronic.com

