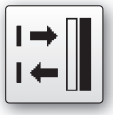
diffuse reflection sensors 2500

design **52 x 52 x 19mm**

diffuse reflection sensors sensing range **200 to 700mm**

- ✓ **robust zinc diecast housing**
- ✓ **high system of protection IP67**
- ✓ **status display by LED**
- ✓ **LED display for fine adjustment**
- ✓ **integrated amplifier**
- ✓ **programmable make contact or break contact function**
- ✓ **high sampling frequency and sensing range**
- ✓ **mounting brackets included in the scope of delivery**
- ✓ **connection with cable**

background suppression via "three-beam distance measurement"



description

Optoelectronic proximity switches of the OT52 type combine robust diffuse reflection sensors with advanced electronics in a zinc diecast housing featuring a "highly efficient background suppression".

A light beam is focused through the central lens onto an object. The beam that is reflected by the object hits an upper and a lower high-precision non-spherical lens. The incoming light beam is focused and projected onto the recognition elements (PSD), which then determine the object's position.

A comparison of the specified electronic values with the values of the object recognition element leads to a very exact distance measurement following the three-beam principle, i.e. the triangulation principle!

Diffuse reflection sensors with background suppression following the three-beam principle are used as limit or position switches and pulse generators on automated machines and for production processes, frequently in conjunction with a PLC. They are capable of a contactless detection of objects made from metal, glass, plastic (films!),wood, paper, etc.

To a large extent the sensing range is not dependent on color, shape or material. Erroneous operations due to objects, which are farther away (machine parts, operating staff),are securely avoided by the "three-beam distance measurement". Technically advanced electronic components used for the film optics together with a robust housing ensure the highest operating safety and reliability. A perfect recognition of the position is still possible with severely soiled lenses.

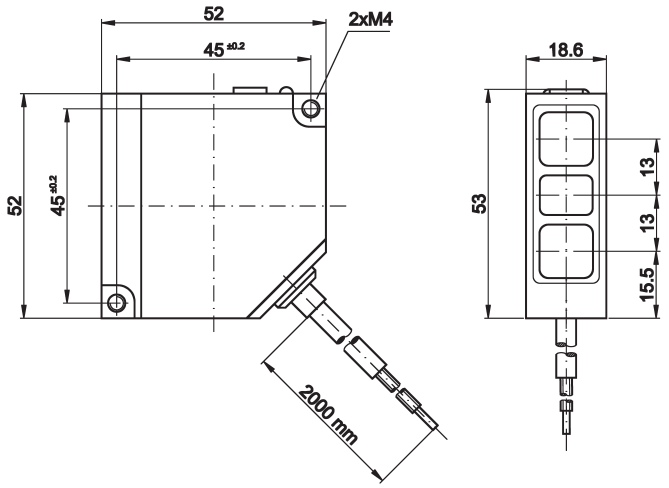
application examples

- ▶ distance monitoring
- ▶ position recognition
- ▶ color independent object detection

optical sensors

2500 diffuse reflection sensors

article-no.	**OT522300**
version	**diffuse reflection sensor**
connection	**cable**
sensing range	**200 ... 700mm**

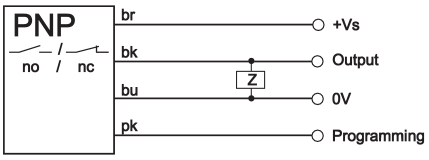


TECHNICAL DATA

sensing range	200 ... 700mm
output signal	pnp, no/nc
operating voltage	12 ... 24V DC
current consumption (w/o load)	≤ 30mA
output current (max. load)	100mA
voltage drop (max. load)	2.0V DC
transmitting element (pulsed)	LED, infrared light
wave length (transmitter)	880nm
response / deacay time	2msec
display (signal / reserve)	red LED / red flashing LED
sensitivity adjustment	+
interference supression	-
short-circuit protection	+
reverse polarity protection	+
design	52x52x19mm
housing material	zinc diecast
lens material	plastic PMMA
operating temperature	-25 ... +55°C
system of protection (EN 60529)	IP67
connection	2m PVC-cable, 4-wire
connection accessories	-
mounting accessories	**AO000065** included in the scope of delivery

connection

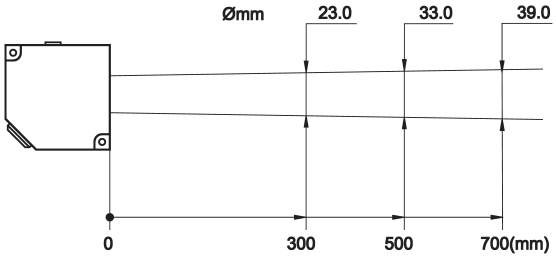
cable device



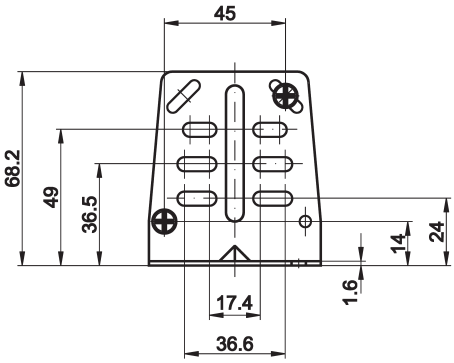
wire colors: br = brown, bk = black, bu = blue, pk = pink

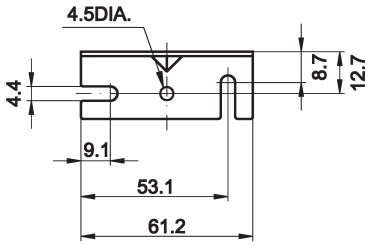
programming: pink/brown: no
pink/blue: nc

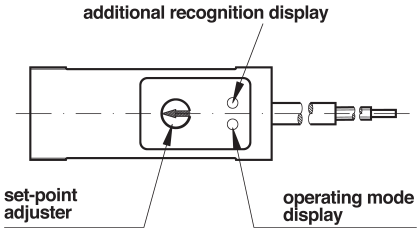
beam spot diameter



mounting bracket AO000065







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

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

notes

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