

Installation and environment

Coverings on the optics affect the function. When installing the device please make sure that preferably no dust and liquids accumulate on the optics. The device should be accessible for cleaning. From time to time the optics should be cleaned with a soft cloth that is moistened with alcohol or soapy water.

Cable

The PVC-connection line of the pre-wired cable devices is not suitable for oil- or solvent-based environment as well as for applications where the cable is often bent.

In such cases the use of a connector device with an ipf-Sensorflex cable socket is recommended.

Set up

With the installed potentiometer the sensitivity and thus the switching distance can be changed. On delivery the device is set to the maximum value. By turning in an anticlockwise direction the switching distance will be reduced.

The device features 3 different status that are displayed via LED.

1. No object detected	2. Reliable object detection	3. Insecure object detection
Both LED remain off	Functional reserve LED lights up green and switching status LED lights up yellow.	Yellow switching status LED lights up, green functional reserve LED remains off.
Output switched off (light-on mode)	Output switched on (light-on mode)	An object is detected, but not within the secure switching range. Output switched on

In case of unsecure object detection either the sensitivity is adjusted too low, the chosen switching distance is too large or the optics have become soiled!

Set the device in a way that with object detection both LED light up and with open „view“ of the sensor both LED remain off.

Note

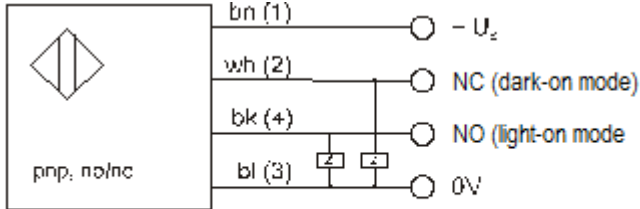
The devices respond to the intensity of the light, which is reflected from an arbitrary object. The data of the nominal switching distances is based on using white paper with an area of 200 x 200mm.

For more reflective materials (e.g. polished aluminum) the maximum switching distance increases. For low reflective materials (e.g. black rubber) the nominal switching distance can't by far be achieved.

optical diffuse reflection sensor design 18

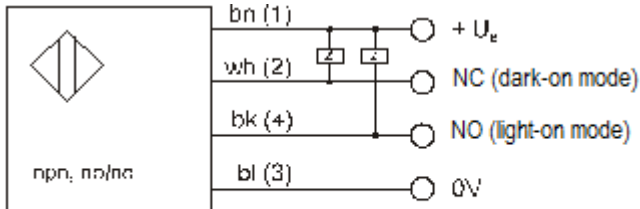
Electrical connection

OT1804x5 / OT1804x7 / OT18C480



bn=brown, wh=white, bk=black, bl=blue
terminal marking of cable socket in brackets

OT1814x5



bn=brown, wh=white, bk=black, bl=blue
terminal marking of cable socket in brackets

Technical Data

article-no.	voltage	current	output	sending-element	optics	nominal sensing range	connection
OT180405	10 ... 35V DC	200mA	pnp, antivalent	LED, red	central	600mm	2m PVC-cable
OT18C480	10 ... 35V DC	200mA	pnp, antivalent	LED, red	central	600mm	5m PVC-cable
OT180425	10 ... 35V DC	200mA	pnp, antivalent	LED, red	central	600mm	M12-connector 4-pin
OT181405	10 ... 35V DC	200mA	nnp, antivalent	LED, red	central	600mm	2m PVC-cable
OT181425	10 ... 35V DC	200mA	nnp, antivalent	LED, red	central	600mm	M12-connector 4-pin
OT180407	10 ... 35V DC	200mA	pnp, antivalent	LED, red	angled	600mm	2m PVC-cable
OT180427	10 ... 35V DC	200mA	pnp, antivalent	LED, red	angled	600mm	M12-connector 4-pin

Warning:

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