

## OR150400 / OR150470

Retro-reflective sensors

### Installation and environment

Coatings on the optics and on the reflector impair the function. The installation should therefore be carried out in such a way that as little dust as possible is deposited and no liquid can get onto them during operation. It must also be ensured that they are accessible for cleaning.

From time to time, the optics and reflector should be cleaned with a soft cloth moistened with alcohol or soapy water.

### Cable

The PVC connection cable of the pre-wired cable devices is not suitable for environments containing oil or solvents and in applications where the cable is frequently moved.

In such cases, the use of a plug device with an ipf-Sensor flex cable socket is recommended.

### Installation and alignment

1. Mount the reflector in the desired position.
2. Cover the reflector, e.g. with adhesive tape, so that only the center (about 25% of the surface) remains free.
3. Then align the device on the reflector and fasten it. Make sure that the reflector is perpendicular to the line connecting it to the device. For optical reasons, keep a minimum distance of approx. 20cm from the reflector!
4. If the light beam is interrupted, the device must now switch safely.
5. Remove the adhesive tape from the reflector.

### Setting

The built-in potentiometer can be used to change the sensitivity and thus the range (distance between the Retro-reflective sensors and the reflector). On delivery, the device is set to the maximum value. Turning it counter-clockwise reduces the range. The full setting range of the potentiometer is 12 revolutions.

If the light beam is interrupted, the switching output switches off (light switching, black core) and the yellow switching state LED goes out.

Safe operation is ensured when both the green function LED and the yellow switching state LED light up when the light path is free and both LEDs go out when the object is recognized.

If the green LED does not light up when the light path is clear, either the sensitivity is set too low, the distance to the reflector is too great, or the optics or reflector are dirty.

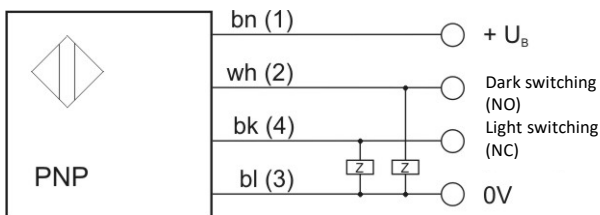
**Note**

The retro-reflective sensors of design 15 operate with a red light emitting diode. The devices are equipped with a polarizing filter, therefore reflectors suitable for polarized light must also be used.

The specified nominal ranges refer to a round reflector with 82mm diameter (AO000006 or AO000007). If smaller reflectors are used, only a smaller maximum range is possible.

**Electrical connection**

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**Technical data**

Article no.	Voltage	Power	Output	Transmit-Element	Nominal Range	Connection
OR150400	10 ... 36V DC	200mA	pnp, no/nc	LED, red, polarizing filter	0.2 ... 4m	3m PVC cable tail
OR150470	10 ... 36V DC	200mA	pnp, no/nc	LED, red, polarizing filter	0.2 ... 4m	M8-connector 4pin

**Safety Notice:**

In case of direct impact on personal safety, the application of these products is prohibited.