

## OS050075 / OE050175

optical sensors  
through-beam sensors

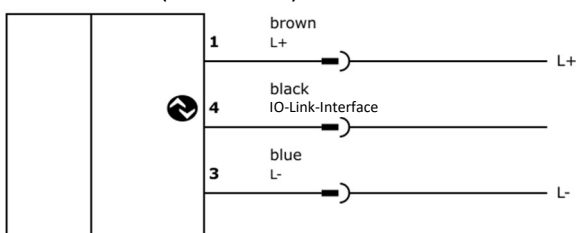
- / stainless steel housing
- / high degree of protection IP67
- / status LED for switching output and functional reserve
- / connection via M8-connector



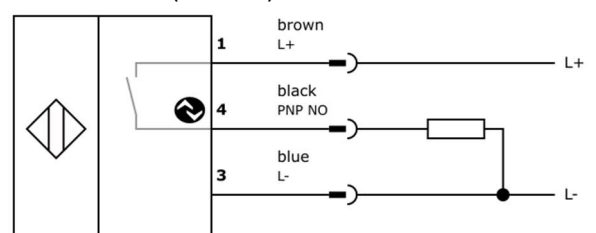
subminiature devices  
visible red light

TECHNICAL DATA	OS050075 (transmitter)	OE050175 (receiver)
sensing range max.	600mm	
operating range	0 ... 500mm	
transmitting element (transmitter OS050075)	LED, red light	-
wavelength (transmitter OS050075)	630nm	-
light spot diameter (at 200mm)	50mm	-
operating voltage $U_b$	10 ... 30V DC	
residual ripple	≤ 10%	
current consumption (w/o load)	≤ 8mA	≤ 10mA
output signal	-	npn, no
output current (max. load)	-	≤ 100mA
voltage drop (max. load)	-	≤ 2V DC
sampling frequency	-	≤ 1kHz
status LED (functional reserve)	-	LED green
status LED (switching state)	-	LED yellow
short-circuit protection	-	+
reverse polarity protection	+	+
housing material	stainless steel V2A	
optics material	PMMA	
degree of protection (EN 60529)	IP 67	
dimensions	M5 x 0.5	
length (thread / complete)	30mm / 35.75mm	
operating temperature	-20 ... +65°C	
connection	300mm PUR cable / M8-connector, 3-pin	
connection accessories	e.g. <b>VK200075</b>	
mounting accessories (mounting holder)	<b>AY000115</b>	

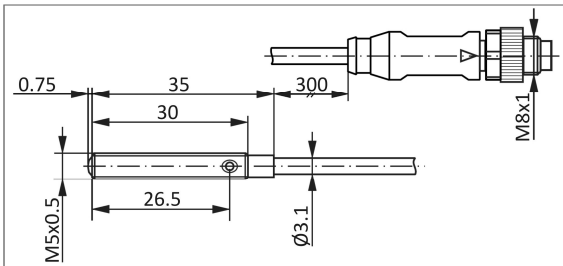
### Connection (transmitter)



### Connection (receiver)



**Dimensional drawing**



**Installation and environment**

Two nuts are included to attach the device.

The maximum tightening torque of 1Nm must not be exceeded!

Coverings on the optics impair the function. Please install the device in such a way that dust cannot be deposited or liquids can get on the optics. The device should be accessible for cleaning.

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

**Cable**

The connecting cable between sensor and M8-connector should be laid as fixed as possible or strain-relieved.

**Installation and alignment**

1. First mount the receiver (OE) at the desired position.
2. Then mount the transmitter (OS) temporarily at its position, the maximum distance for a reliable operation is 500mm.
3. Now align the optical axis of the transmitter to that of the receiver. When the light path is free, the green LED of the receiver must light up.
4. Mount the transmitter finally.
5. When the light beam is interrupted, the switching output of the receiver must now switch reliably – the LEDs don't light up.

**Notes**

The sensitivity is non-adjustable and can only be changed using the IO-Link interface.

When the light beam is interrupted, the switching output (dark-on mode) of the receiver switches and the LEDs extinguish.

Reliable operation is ensured if the green LED lights up with free light path and extinguishes when the switching output switches.

If the light path is free and only the yellow LED lights up or no LED lights up, either the distance between transmitter and receiver is too large, the alignment is incorrect or the optics are soiled. Realign the devices and / or clean the optics.

If the light-barrier is operated on a controller that does not support IO-Link, leave the black wire of the transmitter open.

**SAFETY WARNINGS:**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

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