



ENGLISH

Datasheet

# RS PRO Through Beam (Emitter) Photoelectric Sensor with Block Sensor

Stock No: 729-5167



Illustration may differ



## Detailed technical data

### Features

<b>Sensor/ detection principle</b>	Through-beam photoelectric sensor
<b>Dimensions (W x H x D)</b>	15.6 mm x 48.5 mm x 42 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0 m ... 20 m
<b>Sensing range</b>	0 m ... 15 m
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED <sup>1)</sup>
<b>Light spot size (distance)</b>	Ø 220 mm (15 m)
<b>Angle of dispersion</b>	Approx. 1.5°
<b>Wave length</b>	633 nm
<b>Adjustment</b>	None

<sup>1)</sup> Average service life: 100,000 h at T<sub>J</sub> = +25 °C.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>7)</sup> C = interference suppression.

<sup>8)</sup> D = outputs overcurrent and short-circuit protected.

<b>Power consumption, sender</b>	≤ 25 mA <sup>3)</sup>
<b>Power consumption, receiver</b>	≤ 20 mA <sup>3)</sup>
<b>Switching output</b>	PNP
<b>Output function</b>	Complementary
<b>Switching mode</b>	Light/dark switching
<b>Signal voltage PNP HIGH/LOW</b>	U <sub>v</sub> - 2.5 V / approx. 0 V
<b>Output current I<sub>max.</sub></b>	100 mA
<b>Response time</b>	≤ 2.5 ms <sup>4)</sup>
<b>Switching frequency</b>	200 Hz <sup>5)</sup>
<b>Connection type</b>	Male connector M12, 4-pin
<b>Circuit protection</b>	A <sup>6)</sup> C <sup>7)</sup> D <sup>8)</sup>
<b>Protection class</b>	II
<b>Weight</b>	120 g
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP66 IP67 IP69K
<b>Test input sender off</b>	TE to 0 V
<b>Ambient operating temperature</b>	-30 °C ... +60 °C
<b>Ambient storage temperature</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493
<b>Part number of individual components</b>	2063410 WS11-2D2430 2063411 WE11-2P2430

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## Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,091 years
<b>DC<sub>avg</sub></b>	0%

## Classifications

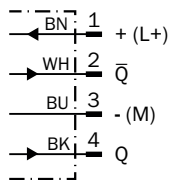
<b>ECI@ss 5.0</b>	27270901
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<b>ECI@ss 8.0</b>	27270901



<b>ECI@ss 8.1</b>	27270901
<b>ECI@ss 9.0</b>	27270901
<b>ECI@ss 10.0</b>	27270901
<b>ECI@ss 11.0</b>	27270901
<b>ETIM 5.0</b>	EC002716
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<b>ETIM 7.0</b>	EC002716
<b>UNSPSC 16.0901</b>	39121528

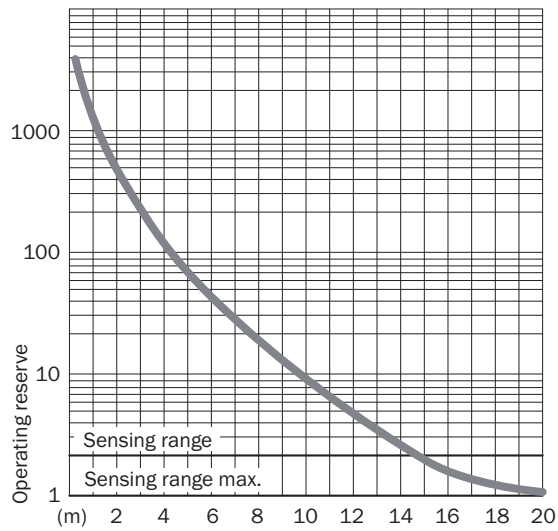
## Connection diagram

Cd-084



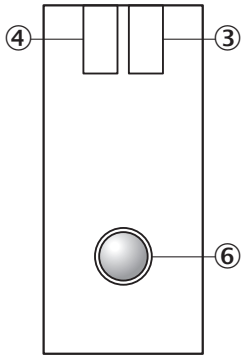
## Characteristic curve

WSE11-2



## Adjustments

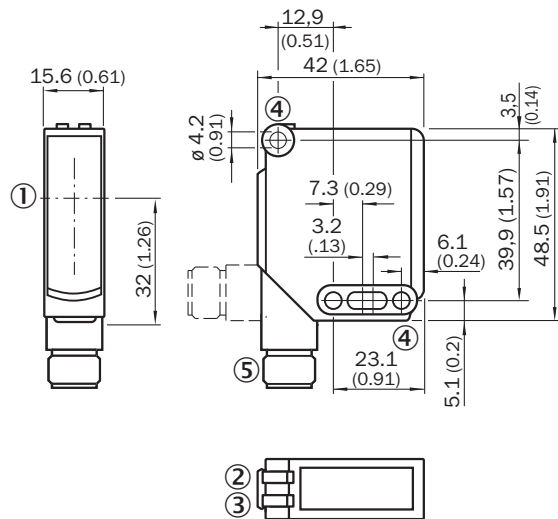
WTE11-2, WSE11-2



- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam
- ⑥ Adjustment sensing range: single teach-in button

## Dimensional drawing (Dimensions in mm (inch))

WSE11-2



- ① Center of optical axis
- ② LED indicator green: Supply voltage active
- ③ LED indicator yellow: Status of received light beam
- ④ Mounting hole  $\varnothing$  4.2 mm
- ⑤ M12 connector, 4-pin or cable

## Brief description

### Mounting brackets and plates



Mounting bracket, large, stainless steel, mounting hardware included

### Plug connectors and cables



Head A: female connector, M12, 4-pin, straight, A-coded  
Head B: Flying leads  
Cable: Sensor/actuator cable, PVC, unshielded, 5 m



Head A: male connector, M12, 4-pin, straight  
Head B: -  
Cable: unshielded