



# WTR2-N551S05

ZoneControl

MULTITASK PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
WTR2-N551S05	1019320

Other models and accessories → [www.sick.com/ZoneControl](http://www.sick.com/ZoneControl)

### Detailed technical data

#### Features

<b>Device type</b>	Photoelectric sensors
<b>Actuator</b>	None, passive sensor head
<b>Sensor/ detection principle</b>	Photoelectric proximity sensor, Background suppression
<b>Dimensions (W x H x D)</b>	18 mm x 99.5 mm x 46 mm
<b>Sensing range max.</b>	300 mm ... 900 mm
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<b>Type of light</b>	Infrared light
<b>Light source</b>	LED <sup>1)</sup>
<b>Light spot size (distance)</b>	Ø 40 mm (900 mm)
<b>Adjustment</b>	Potentiometer
<b>Special applications</b>	ZoneControl
<b>Special features</b>	For higher EMC requirements Sensing range preset to 300 mm based on objects to be sensed with 6 % reflectivity Pin 2 and pin 4 swapped over

<sup>1)</sup> Average service life: 100,000 h at T<sub>U</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>
<b>Current consumption</b>	25 mA <sup>3)</sup>
<b>Switching output</b>	NPN

<sup>1)</sup> Limit values.

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

<sup>3)</sup> Without load and valve deenergized.

<sup>4)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>5)</sup> C = interference suppression.

<sup>6)</sup> D = outputs overcurrent and short-circuit protected.

<sup>7)</sup> Reference voltage: 50 V DC.

<b>Switching mode</b>	Dark switching
<b>Signal voltage NPN HIGH/LOW</b>	Approx. $V_S$ / < 2.0 V
<b>Output current <math>I_{max}</math></b>	≤ 100 mA
<b>Switching frequency</b>	250 Hz
<b>Connection type</b>	Male connector M12, 4-pin
<b>Circuit protection</b>	A <sup>4)</sup> C <sup>5)</sup> D <sup>6)</sup>
<b>Protection class</b>	II <sup>7)</sup>
<b>Weight</b>	40 g
<b>Special device</b>	✓
<b>Housing material</b>	Plastic, ABS
<b>Enclosure rating</b>	IP54
<b>Shock and vibration resistance</b>	According to IEC 68
<b>Ambient operating temperature</b>	-40 °C ... +60 °C
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

1) Limit values.

2) May not exceed or fall below  $U_V$  tolerances.

3) Without load and valve deenergized.

4) A =  $V_S$  connections reverse-polarity protected.

5) C = interference suppression.

6) D = outputs overcurrent and short-circuit protected.

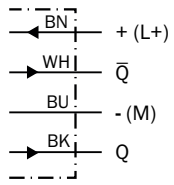
7) Reference voltage: 50 V DC.

## Classifications

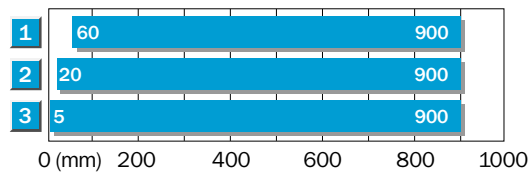
<b>ECI@ss 5.0</b>	27270904
<b>ECI@ss 5.1.4</b>	27270904
<b>ECI@ss 6.0</b>	27270904
<b>ECI@ss 6.2</b>	27270904
<b>ECI@ss 7.0</b>	27270904
<b>ECI@ss 8.0</b>	27270904
<b>ECI@ss 8.1</b>	27270904
<b>ECI@ss 9.0</b>	27270904
<b>ECI@ss 10.0</b>	27270904
<b>ECI@ss 11.0</b>	27270904
<b>ETIM 5.0</b>	EC002719
<b>ETIM 6.0</b>	EC002719
<b>ETIM 7.0</b>	EC002719
<b>ETIM 8.0</b>	EC002719
<b>UNSPSC 16.0901</b>	39121528

### Connection diagram

Cd-094

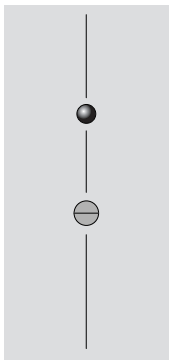


### Sensing range diagram



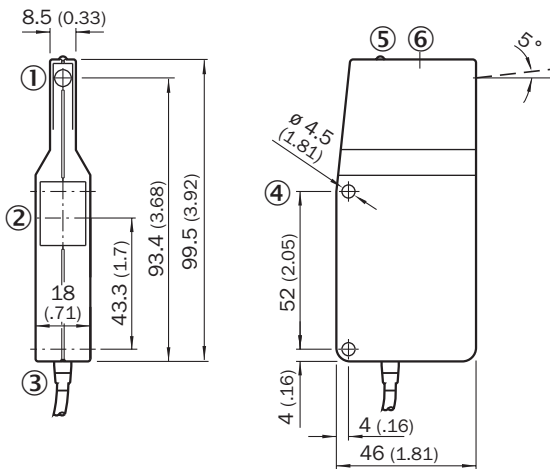
- 1 Scanning distance on black, 6% remission
- 2 Scanning distance on grey, 18% remission
- 3 Scanning distance on white, 90% remission

### Adjustments



- ⑤ LED signal strength indicator
- ⑥ Adjustment of sensing range





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



- ① Sender
- ② Receiver
- ③ Connection cable
- ④ Fixing hole
- ⑤ LED signal strength indicator
- ⑥ Adjustment of sensing range

**Recommended accessories**

Other models and accessories → [www.sick.com/ZoneControl](http://www.sick.com/ZoneControl)

	<b>Brief description</b>	<b>Type</b>	<b>Part no.</b>
<b>Mounting brackets and plates</b>			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WK-WTR	2051786
		BEF-WN-RT/IRT	2074621
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)