

IRT-P211C63

ZoneControl

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
IRT-P211C63	1063127

Other models and accessories → www.sick.com/ZoneControl

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Actuator	Pneumatic, valve supplied separately
Max. number of sensors	Approx. 30 ¹⁾ Approx. 50 ²⁾
Logical principle of operation	Single accumulation
Type of Release	Single release, block (slug) release
Dimensions (W x H x D)	20.6 mm x 99.2 mm x 48.9 mm
Sensing range max.	60 mm 900 mm
Sensing range	60 mm 900 mm
Focus	7°
Type of light	Infrared light
Light source	LED ³⁾
Light spot size (distance)	Ø 20 mm (500 mm)
Angle of dispersion	7°
Adjustment	Potentiometer, 9 turns
Special applications	ZoneControl

 $^{^{1)}\,\}mathrm{When}$ powerd from the end of the IR daisy chain.

 $^{^{2)}\,\}mathrm{When}$ powerd from center of the IR daisy chain.

 $^{^{3)}}$ Average service life: 100,000 h at TU = +25 °C.

Mechanics/electronics

Supply voltage Ug 10 V D C 30 V D	moonamoo, orootromoo	
Current consumption 20 mA 3) Switching output PNP HIGH/LOW Approx. V _S - 0.5 V / 0 V Output current I _{max} . \$ 100 mA Response time 2 ms Switching frequency 250 Hz Connection type Male connector M12, 4-pin Connection type for daisy chain Cable with female connector, M12, 4-pin 1.2 m Circuit protection 25 ms Protection class III Weight 175 g Housing material Plastic, ABS Enclosure rating IP67 Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 ° C +60 ° C Ambient temperature, storage HIGH to Drive HIGH to Drive	Supply voltage U _B	10 V DC 30 V DC ¹⁾
Switching output PNP Signal voltage PNP HIGH/LOW Approx. V _S - 0.5 V / 0 V Output current I _{max} . \$ 100 mA Response time 2 ms Switching frequency 250 Hz Connection type Male connector M12, 4-pin Connection type for daisy chain Cable with female connector, M12, 4-pin 1.2 m Circuit protection A 4)	Ripple	< 5 V _{pp} ²⁾
Signal voltage PNP HIGH/LOW Approx. V _S − 0.5 V / 0 V Output current I _{max} . ≤ 100 mA Response time 2 ms Switching frequency 250 Hz Connection type Male connector M12, 4-pin Connection type for daisy chain Cable with female connector, M12, 4-pin 1.2 m Circuit protection A ⁴⁾	Current consumption	20 mA ³⁾
Output current I _{max.} ≤ 100 mA Response time 2 ms Switching frequency 250 Hz Connection type Male connector M12, 4-pin Connection type for dalsy chain Cable with female connector, M12, 4-pin 1.2 m Circuit protection A 40 C 50 D 60 D 60 D 60 Protection class III Weight 175 g Housing material Plastic, ABS Enclosure rating IP67 Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 ° C +60 ° C Ambient temperature, storage -40 ° C +75 ° C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Switching output	PNP
Response time 2 ms Switching frequency 250 Hz Connection type Male connector M12, 4-pin Connection type for daisy chain Cable with female connector, M12, 4-pin 1.2 m Circuit protection A A Circuit protection class III Weight 175 g Housing material Plastic, ABS Enclosure rating IP67 Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage -40 °C +75 °C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Signal voltage PNP HIGH/LOW	Approx. V _S – 0.5 V / 0 V
Switching frequency250 HzConnection typeMale connector M12, 4-pinConnection type for daisy chainCable with female connector, M12, 4-pin 1.2 mCircuit protectionA 4 (Output current I _{max.}	≤ 100 mA
Connection type Male connector M12, 4-pin Connection type for daisy chain Circuit protection A 4) C 5) D 6) Protection class Weight Housing material Enclosure rating Phock and vibration resistance According to IEC 68 Ambient operating temperature According to IEC 68 Ambient temperature, storage UL File No. Male connector M12, 4-pin 1.2 m Adv. C 5) D 6) Protection M12, 4-pin 1.2 m Adv. C 5) D 6) Protection class III A 4) C 5) D 6) Protection class III Average Plastic, ABS Finclosure rating IP67 Shock and vibration resistance According to IEC 68 Ambient temperature, storage -40 ° C +60 ° C -40 ° C +75 ° C UL File No. MRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Response time	2 ms
Connection type for daisy chain Circuit protection A 4) C 5) D 6) Protection class III Weight Housing material Enclosure rating Shock and vibration resistance Ambient operating temperature According to IEC 68 Ambient temperature, storage UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve C 5) D 6) III A 4) C 5) D 6) RA B 6 B 7 B 7 B 8 B 8 B 8 B 8 B 8 B 8 B 8 B 9 B 9 B 9 B 9 B 9 B 9 B 9 B 9 B 9 B 9	Switching frequency	250 Hz
Circuit protection A 4) C 5) D 6) Protection class III Weight 175 g Housing material Plastic, ABS Enclosure rating Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve A 4) C 5) C 5) D 6) C 5) C 5) D 6) C 5) C 5) C 68 C 7)	Connection type	Male connector M12, 4-pin
C 5) D 6) Protection class III Weight Housing material Enclosure rating Plo7 Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve RIGH to Drive	Connection type for daisy chain	Cable with female connector, M12, 4-pin 1.2 m
Weight Housing material Plastic, ABS Enclosure rating Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Circuit protection	C ⁵⁾
Housing material Plastic, ABS IP67 Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve Plastic, ABS IP67 According to IEC 68 -40 °C +75 °C NRKH.E189383 & NRKH7.E189383	Protection class	III
Enclosure rating Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage -40 °C +75 °C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Weight	175 g
Shock and vibration resistance According to IEC 68 Ambient operating temperature -40 °C +60 °C Ambient temperature, storage -40 °C +75 °C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Housing material	Plastic, ABS
Ambient operating temperature -40 °C +60 °C Ambient temperature, storage -40 °C +75 °C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Enclosure rating	IP67
Ambient temperature, storage -40 °C +75 °C UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Shock and vibration resistance	According to IEC 68
UL File No. NRKH.E189383 & NRKH7.E189383 Mode of operation solenoid valve HIGH to Drive	Ambient operating temperature	-40 °C +60 °C
Mode of operation solenoid valve HIGH to Drive	Ambient temperature, storage	-40 °C +75 °C
	UL File No.	NRKH.E189383 & NRKH7.E189383
Connection type solenoid valve Cable with 9.4 mm DIN valve connection	Mode of operation solenoid valve	HIGH to Drive
composition type scholar variety	Connection type solenoid valve	Cable with 9.4 mm DIN valve connection

¹⁾ Limit values.

Safety-related parameters

•	
MTTF _D	771 years
DC _{avg}	0 %

Pneumatic

Connection type solenoid valve	Cable with 9.4 mm DIN valve connection
Certificates	

Certificates

EU declaration of conformity	✓
China RoHS	✓

Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904

²⁾ May not fall below or exceed U_V tolerances.

 $^{^{}m 3)}$ Without load and valve deenergized.

 $^{^{\}rm 4)}$ A = V_S connections reverse-polarity protected.

 $^{^{5)}}$ C = interference suppression.

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

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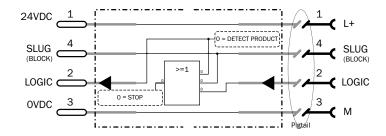
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ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

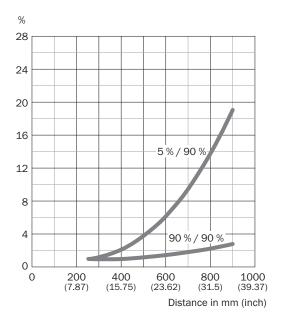
Connection diagram

9.4 mm DIN cable, 300 mm Q ACTUATOR²

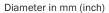
Connection diagram Cd-264

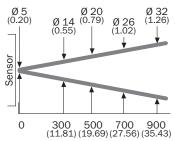


Characteristic curve



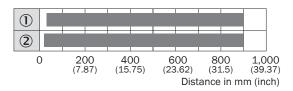
Light spot size





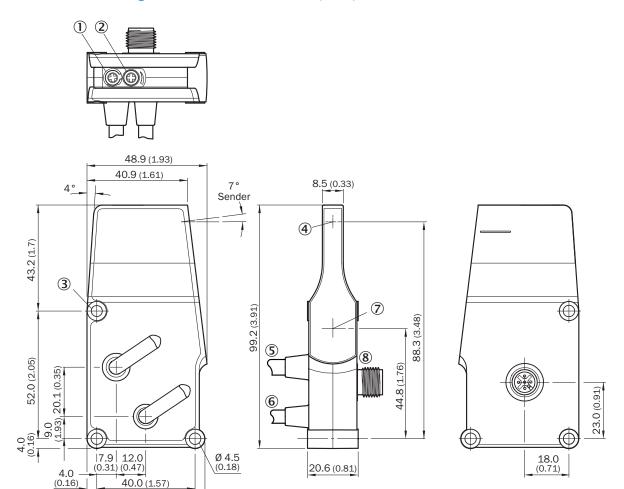
Distance in mm (inch)

Sensing range diagram



- Sensing range max.
- ① Sensing range to black, 5% remission factor
- ② Sensing range on white, 90% remission factor

Dimensional drawing IR, for Motor Driven Rollers (MDR)



Dimensions in mm (inch)

- ① LED
- ② Potentiometer
- 3 fixing hole
- 4 Center of optical axis, sender
- ⑤ series connection, cable with female connector

48.0 (1.89)

- **6** Connection for motor
- ⑦ Center of optical axis, receiver
- ® male connector M12, 4-pin

Recommended accessories

Other models and accessories → www.sick.com/ZoneControl

	Brief description	Туре	part no.	
connectors ar	connectors and cables			
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235	
	Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	STE-1204-G	6009932	
Mounting syst	tems			
	 Description: Mounting bracket Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included 	BEF-WN-RT/IRT	2074621	
(1 t)	Description: Mounting bracket Material: Steel Details: Steel, zinc coated Items supplied: Mounting hardware included Usable for: WTR/WLR, IRT	BEF-WK-WTR	2051786	

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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."

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