



IRT-P006C83S05

ZoneControl

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
IRT-P006C83S05	1063097

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

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Actuator	Electrical
Max. number of sensors	Approx. 30 ¹⁾ Approx. 50 ²⁾
Logical principle of operation	Single accumulation with sleep
Type of Release	Single 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⁾ When powered from the end of the IR daisy chain.

²⁾ When powered from center of the IR daisy chain.

³⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾
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
Delay time	500 ms OFF Delay
Connection type	Male connector M12, 4-pin
Connection type for daisy chain	Cable with female connector, M12, 5-pin 2 m ⁴⁾
Circuit protection	A ⁵⁾ C ⁶⁾ D ⁷⁾
Protection class	III
Weight	175 g
Special device	✓
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

¹⁾ Limit values.

²⁾ May not fall below or exceed U_y tolerances.

³⁾ Without load and valve deenergized.

⁴⁾ PIN 1 = 24VDC, PIN 2 = Logic, PIN 3 = 0VDC, PIN 4 = Sleep, PIN 5 = 500 ms Delay.

⁵⁾ A = V_S connections reverse-polarity protected.

⁶⁾ C = interference suppression.

⁷⁾ D = outputs overcurrent and short-circuit protected.

Safety-related parameters

MTTF_D	771 years
DC_{avg}	0 %

Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904

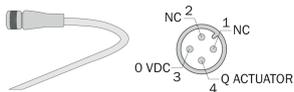
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Certificates

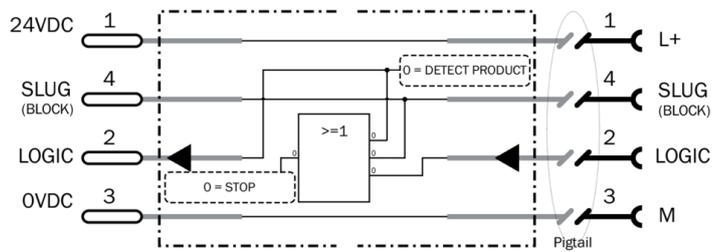
EU declaration of conformity	✓
China RoHS	✓

Connection diagram

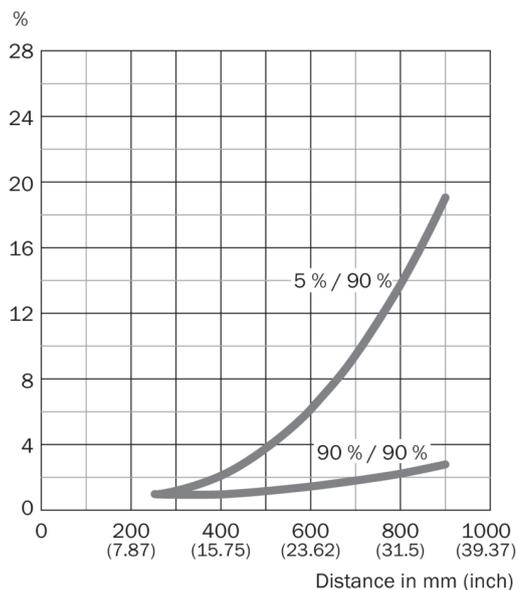
x8x: 4-PIN M12 Pigtail, 300 mm



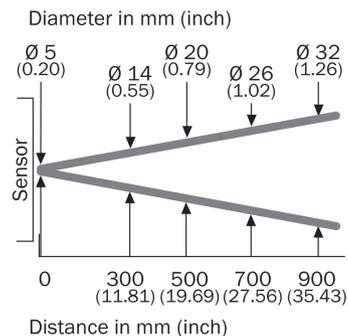
Connection diagram Cd-264



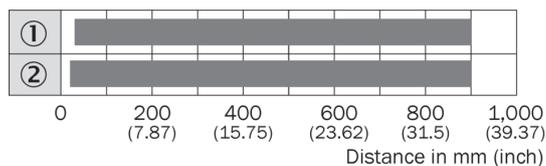
Characteristic curve



Light spot size

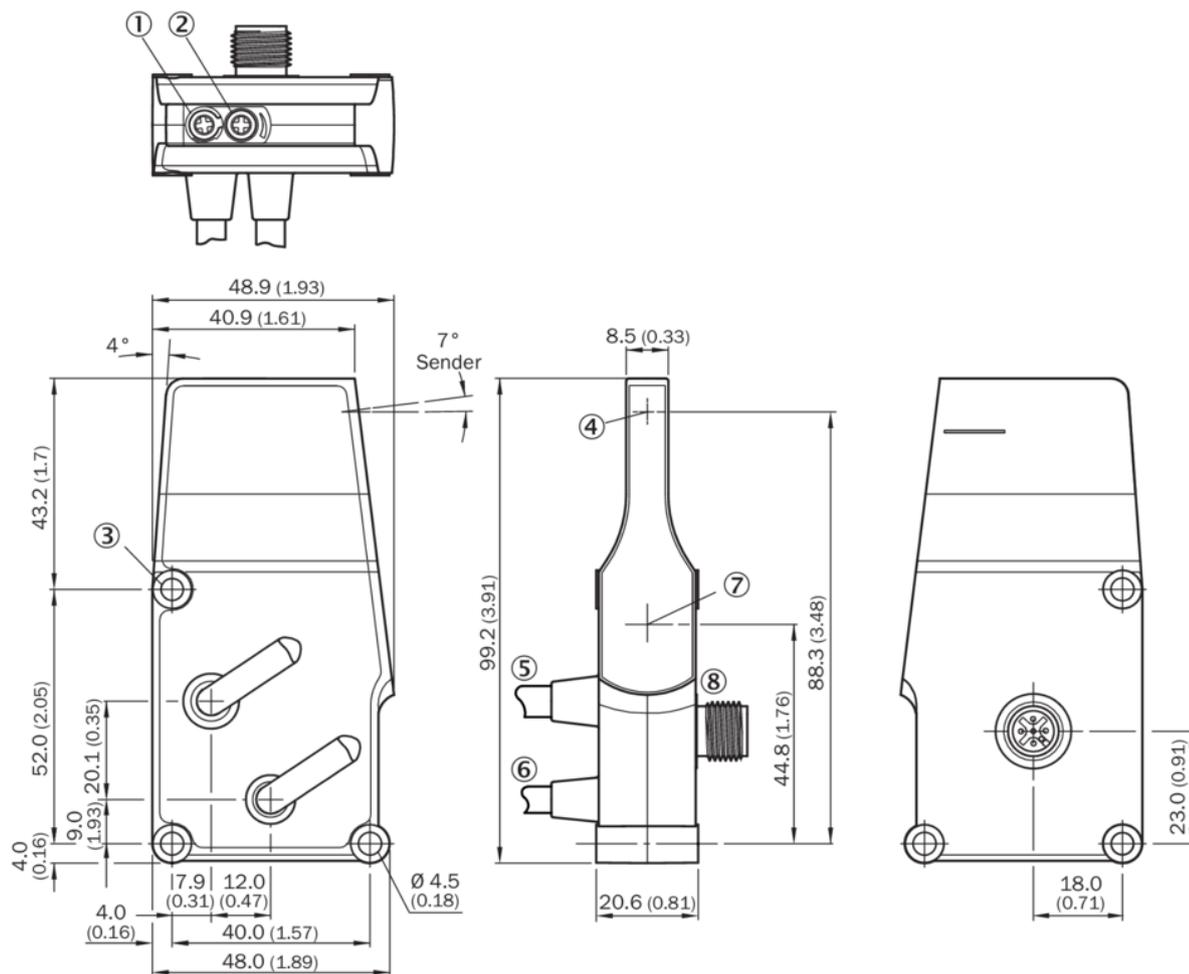


Sensing range diagram



- 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
- ⑥ Connection for motor
- ⑦ Center of optical axis, receiver
- ⑧ male connector M12, 4-pin

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