# IRT-P006C83S06

ZoneControl

**MULTITASK PHOTOELECTRIC SENSORS**

**SICK**
Sensor Intelligence.

## Ordering information

| Type | Part no. |
|---|---|
| IRT-P006C83S06 | 1063098 |

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

Illustration may differ

## Detailed technical data

### Features

| | |
|---|---|
| **Actuator** | Electrical |
| **Max. number of sensors** | Approx. 30 [1] <br> Approx. 50 [2] |
| **Logical principle of operation** | Single accumulation with sleep |
| **Type of Release** | Single release |
| **Sensor/ detection principle** | Photoelectric proximity sensor, Background suppression |
| **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 |
| **Special features** | 500 ms OFF Delay <br> PUR cable |

[1] When powerd from the end of the IR daisy chain.
[2] When powerd from center of the IR daisy chain.
[3] Average service life: 100,000 h at $T_U$ = +25 °C.

## Mechanics/electronics

| | |
|---|---|
| **Supply voltage** | 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 receptacle, M12, 4-pin 2 m |
| **Circuit protection** | A [4]<br>C [5]<br>D [6] |
| **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 storage temperature** | –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 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.

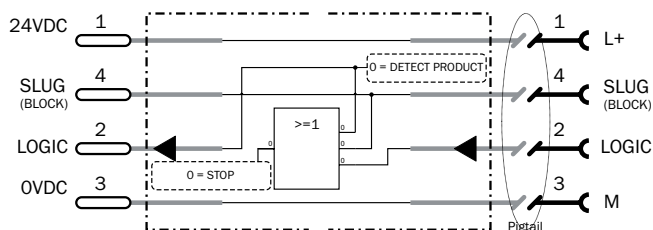[6] D = outputs overcurrent and short-circuit protected.

## Classifications

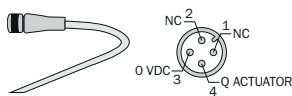| | |
|---|---|
| **ECl@ss 5.0** | 27270904 |
| **ECl@ss 5.1.4** | 27270904 |
| **ECl@ss 6.0** | 27270904 |
| **ECl@ss 6.2** | 27270904 |
| **ECl@ss 7.0** | 27270904 |
| **ECl@ss 8.0** | 27270904 |
| **ECl@ss 8.1** | 27270904 |
| **ECl@ss 9.0** | 27270904 |
| **ECl@ss 10.0** | 27270904 |
| **ECl@ss 11.0** | 27270904 |

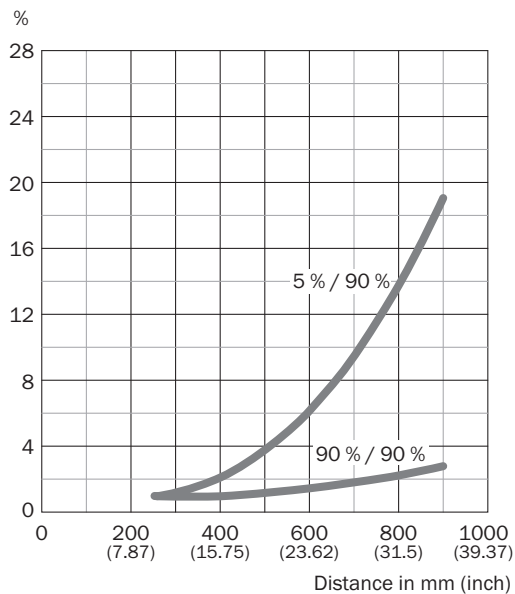| ETIM 5.0 | EC002719 |
|---|---|
| ETIM 6.0 | EC002719 |
| ETIM 7.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |

## Connection diagram

Cd-264



xC8x: 4-PIN M12 Pigtail, 300 mm



## Characteristic curve

## Light spot size

Diameter in mm (inch)

Ø 5 (0.20)
Ø 14 (0.55)
Ø 20 (0.79)
Ø 26 (1.02)
Ø 32 (1.26)

Sensor

0    300 (11.81)   500 (19.69)   700 (27.56)   900 (35.43)

Distance in mm (inch)

## Sensing range diagram

① ②

0    200 (7.87)   400 (15.75)   600 (23.62)   800 (31.5)   1,000 (39.37)
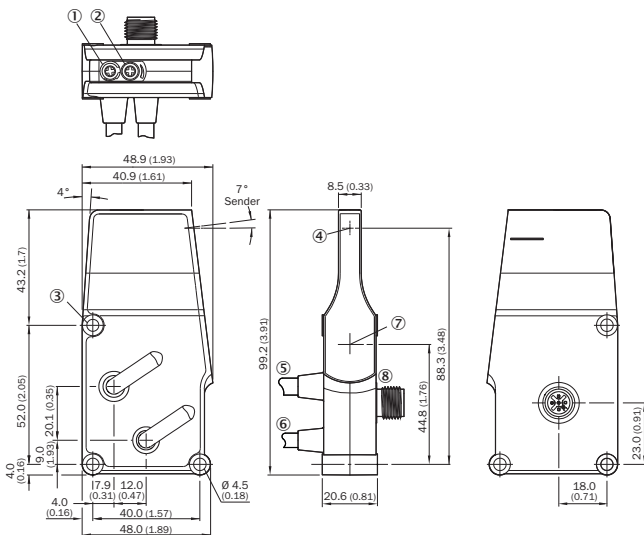
Distance in mm (inch)
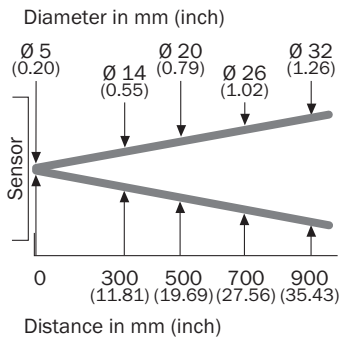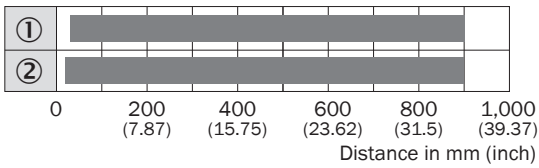
■ Sensing range max.

① Sensing range on black, 5 % remission
② Sensing range on white, 90% remission

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

IR, for Motor Driven Rollers (MDR)

48.9 (1.93)
40.9 (1.61)
4°
7° Sender
8.5 (0.33)
43.2 (1.7)
99.2 (3.91)
88.3 (3.48)
44.8 (1.76)
52.0 (2.05)
20.1 (0.35)
9.0 (1.93)
4.0 (0.16)
4.0 (0.16)
7.9 (0.31)
12.0 (0.47)
40.0 (1.57)
48.0 (1.89)
Ø 4.5 (0.18)
20.6 (0.81)
18.0 (0.71)
23.0 (0.91)

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

## Recommended accessories

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

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

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Sensor Intelligence.