ONLINE DATA SHEET
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Photoelectric sensors
ZoneControl, Photoelectric proximity sensor, Background suppression

IRT-P211E40

SICK
Sensor Intelligence.

Photoelectric sensors
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Model Name > IRT-P211E40
Part No. > 1063103

Illustration may differ

At a glance

- All-in-one ZoneControl solution: sensor, logic and actuator
- Single accumulation or single accumulation with sleep
- Ideal for pneumatic actuators or motor-driven rollers
- Daisy chain connection cable included for zone lengths of 1 m and 2 m
- Output options with flying leads, M12 or integrated valve
- Integrated with SICK's patented optical ASIC: SIRIC
- IP 65 housing for harsh wash down environments

Your benefits

- 30% lower current draw reduces the size of the power supply and yearly electric costs
- Next-generation SIRIC optical ASIC provides ambient light immunity, which eliminates false trips and ensures high productivity
- Variety of features and choices ensure application requirements are met
- Background suppression reduces mounting effort since no reflector is required
- Daisy chain connectivity ensures changes or additions to the system can be made quickly
- Sleep mode, which switches the rollers off after 9 s of inactivity, dramatically reduces power costs
- Mounting between the rollers prevents damage and sensor interference
- The all-in-one solution with sensor, logic and valve reduces wiring and programming costs

Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	50 mm x 147.4 mm x 48.9 mm
Sensing range:	60 mm ... 900 mm
Type of light:	Infrared light
Light source:	LED [1)]
Angle of dispersion:	7 °
Adjustment:	Potentiometer, 9 turns
Light spot size (distance):	Ø 20 mm (500 mm)
Actuator:	Pneumatic, valve on board
Max. number of sensors::	Ca. 30, Ca. 50 [2) 3)]
Logical principle of operation:	Single accumulation
Type of Release:	Block (slug) release, Single release

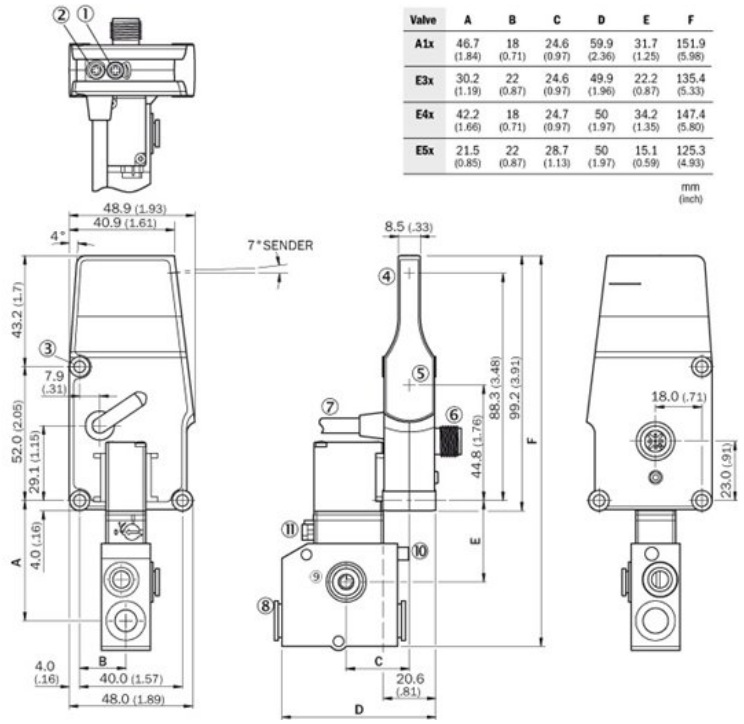
[1] Average service life of 100,000 h at T_A = +25 °C [2] When powerd from the end of the IR daisy chain [3] When powerd from center of the IR daisy chain

Mechanics/electronics

Supply voltage:	19.2 V DC ... 27.6 V DC [1]
Ripple:	< 5 Vpp [2]
Power consumption:	< 20 mA [3]
Output type:	PNP
Output current Imax.:	≤ 100 mA
Response time:	2 ms
Switching frequency:	± 250 Hz
Connection type:	Connector M12, 4-pin [4]
Circuit protection:::	A, C, D [5] [6] [7]
Protection class:	III
Weight:	175 g
Housing material:	ABS, Plastic
Enclosure rating:	IP 65
Ambient operating temperature:	-10 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +75 °C
Shock/vibration:	According to IEC 68
UL File No.:	NRKH.E189383 & NRKH7.E189383
Signal voltage PNP HIGH/LOW:	Approx. VS - 0.5 V／0 V
Connection type for daisy chain:	Cable with receptacle, M12, 4-pin 1.2 m
Medium for valves:	Compressed air or neutral gases filtered, Non-lubricated or lubricated
Design solenoid valve:	3/2-way valve
Mode of operation solenoid valve:	Air to Drive (NC)
Connection type solenoid valve:	Control line 8 mm diameter, Compressed air 2 x 8 mm diameter
Coil ratings:	24 V DC 2 W
Air flow rate:	Ca. 20 Nl/min
Ventilation capacity:	Ca. 130 Nl/min
Operating pressure range:	2 bar ... 8 bar

[1] Limit values [2] May not exceed or fall short of V_S tolerances [3] Without load and valve deenergized [4] Do not bend below 0 °C [5] A = V_S connections reverse-polarity protected [6] C = interference suppression [7] D = outputs overcurrent and short-circuit protected

Dimensional drawing

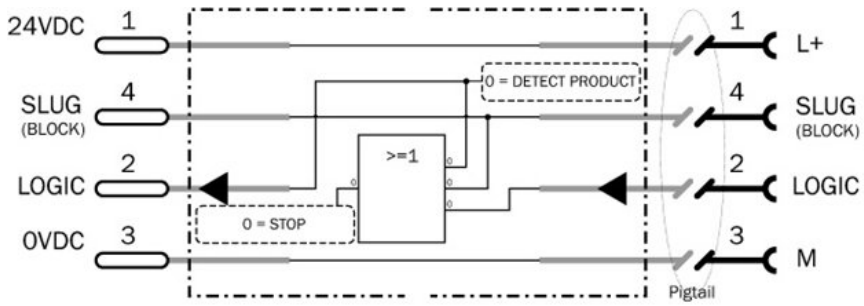


Valve	A	B	C	D	E	F
A1x	46.7 (1.84)	18 (0.71)	24.6 (0.97)	59.9 (2.36)	31.7 (1.25)	151.9 (5.98)
E3x	30.2 (1.19)	22 (0.87)	24.6 (0.97)	49.9 (1.96)	22.2 (0.87)	135.4 (5.33)
E4x	42.2 (1.66)	18 (0.71)	24.7 (0.97)	50 (1.97)	34.2 (1.35)	147.4 (5.80)
E5x	21.5 (0.85)	22 (0.87)	28.7 (1.13)	50 (1.97)	15.1 (0.59)	125.3 (4.93)

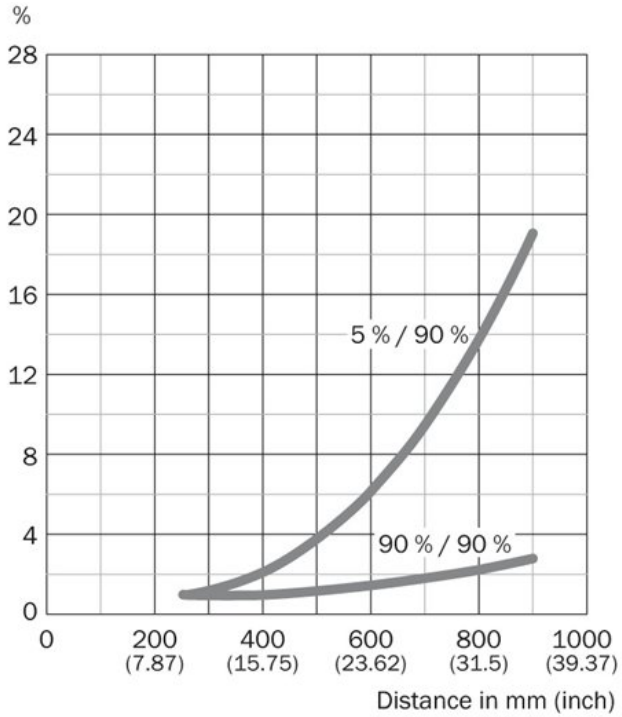
mm (inch)

|1| Potentiometer
|2| LED
|3| Mounting hole
|4| Center of optical axis, sender
|5| Center of optical axis, receiver
|6| Connector M12, 4-pin
|7| Daisy chain, cable with female connector

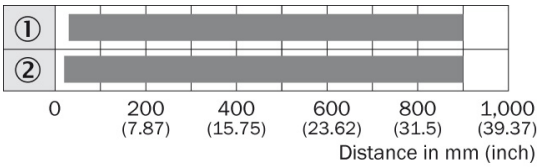
Connection diagram



Characteristic curve



Sensing range diagram



Sensing range max.

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