



Photoelectric sensors
ZoneControl, Photoelectric proximity sensor,
Background suppression

IRT-P212E41



Model Name > [IRT-P212E41](#)
Part No. > [1063109](#)

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



Illustration may differ



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 |

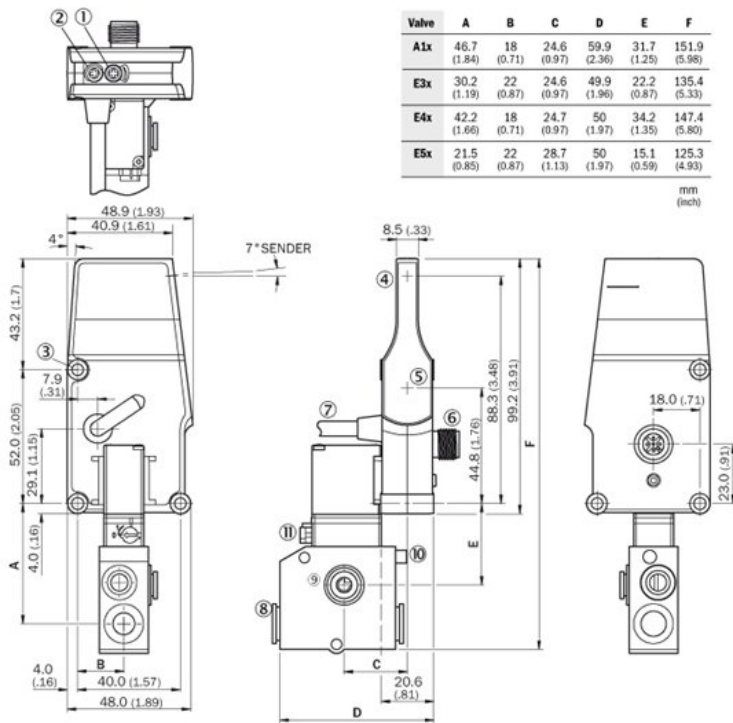
1) Average service life of 100,000 h at $T_A = +25\text{ °C}$ 2) When power from the end of the IR daisy chain 3) When power from center of the IR daisy chain

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 I _{max.} : | ≤ 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 ... +55 °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 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 Brake (NO) |
| Connection type solenoid valve: | Output line 4 mm diameter, Compressed air 2 x 8 mm diameter |
| Coil ratings: | 24 V DC 1 W |
| Air flow rate: | Ca. 20 NI/min |
| Ventilation capacity: | Ca. 130 NI/min |
| Operating pressure range: | 2 bar ... 8 bar |

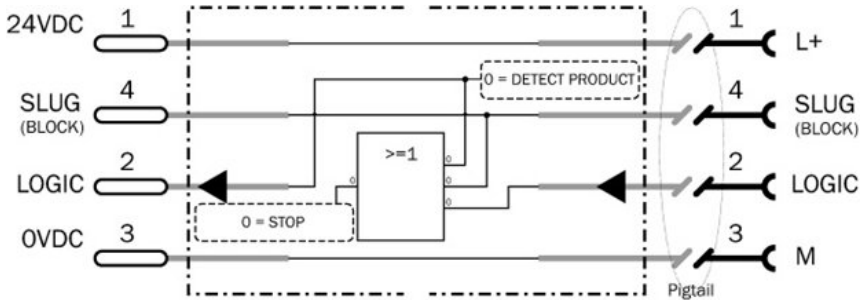
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load and valve deenergized 4) Do not bend below 0 °C 5) A = V_S connections reverse-polarity protected 6) C = interference suppression 7) D = outputs overcurrent and short-circuit protected

Dimensional drawing

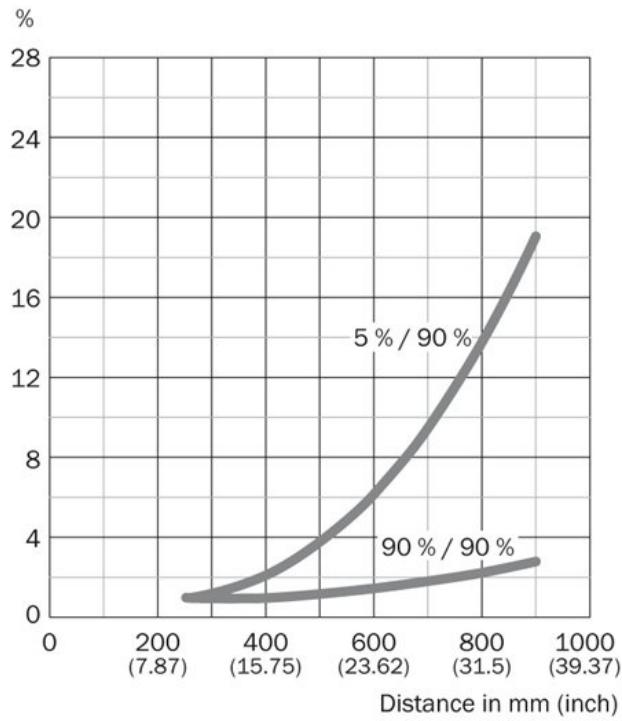


- |1| Potentiometer
- |2| LED
- |3| Mounting hole
- |4| Center of optical axis, sender
- |5| Center of optical axis, receiver
- |6| Connector M12, 4-pin
- |7| Daisy chain, cable with female connector

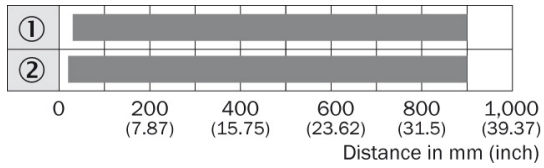
Connection diagram



Characteristic curve



Sensing range diagram



■ Sensing range max.

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