

ZoneControl

Zero pressure accumulation made easy

MULTITASK PHOTOELECTRIC SENSORS

SICKSensor Intelligence.





Technical data overview

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|--------------------------|---|
| Dimensions (W x H x D) | 20.6 mm x 99.2 mm x 48.9 mm 59.9 mm x 151.9 mm x 48.9 mm 50 mm x 125.3 mm x 48.9 mm 50 mm x 147.4 mm x 48.9 mm 49.9 mm x 135.4 mm x 48.9 mm 49.9 mm x 131.5 mm x 46 mm 31 mm x 105 mm x 74 mm 31 mm x 93 mm x 74 mm 51.5 mm x 151.4 mm x 46 mm 18 mm x 99.5 mm x 46 mm 51.5 mm x 157 mm x 46 mm 31 mm x 110 mm x 83 mm 30 mm x 110 mm x 70 mm 45 mm x 73.7 mm x 48.6 mm |
| Sensing range max. | 60 mm 900 mm 250 mm 1,500 mm 250 mm 5,000 mm 300 mm 900 mm 100 mm 900 mm 3.9 in 35.4 in 0 m 9 m |
| Light source | LED |
| Type of light | Infrared light / visible red light (depending on type) |
| Enclosure rating | IP67 IP65 IP54 IP40 NEMA 3 |
| Housing material | Plastic ABS Plastic Glass fiber reinforced ABS plastic |
| Adjustment | Potentiometer, 9 turns Potentiometer None |

Product description

Just as traffic lights regulate the flow of traffic in towns and cities, SICK's ZoneControl solutions control the flow of products on a belt – without the need for a PLC or another type of external control. ZoneControl by SICK consists of three product families to control the flow of products. This procedure is called zero pressure accumulation (ZPA). ZoneControl solutions are extremely easy to install (plug and play): Connect the ZoneControl products in series, install the sensor, and connect the pneumatic line or the connection to the motor-driven rollers. There is, therefore, no need for PLC programming, laptops, and expensive cabling. Each product contains one of two types of startup logic: single feed (with or without sleep function) and block (slug) feed, depending on the requirements of the application. So that the various requirements can be met, there are three mounting configurations to choose from: mounting between the rollers (R/IR), mounting on the side frame (ZLM), or mounting above the belt (WLR)

At a glance

- Three mounting types: mounting between the rollers (R/IR), mounting on the side frame (ZLM), or mounting above the belt (WLR)
- Three types of logic: single feed, single feed with sleep function, block (slug) feed
- Up to 50 ZoneControl solutions can be connected in series.
- Fully animated simulation to ease selection and implementation
- Standard cut lengths of 1 m (3 ft) or 2 m (6 ft)

Your benefits

- · Largest Zero Pressure Accumulation portfolio on the market gives users a wide variety of choices for their application
- SICK ZoneControl solutions control the flow of packages a on conveyor without a PLC or other external control
- Quick setup since no programming, no laptop, and no PLC interfacing are required
- With 20 years of ZoneControl experience and personal support from SICK experts, all application and product issues are quickly addressed
- · Quick expansion or modification of the conveyor due to the modular design

Ordering information

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

• Sub product family: IR

• Sensing range max.: 60 mm 900 mm

• **Sensor principle:** Photoelectric proximity sensor • **Detection principle:** Background suppression

Switching output: PNPAdjustment: Potentiometer

• Voltage type: DC

| Connection type | Туре | Part no. |
|-----------------|-----------------|----------|
| Cable | IRT-P210C93S25 | 1083189 |
| Male connector | IRT-P211C63 | 1063127 |
| | IRT-P212C63 | 1063116 |
| | IRT-P212C93S24 | 1082537 |
| | IRTF-P211A10 | 1063128 |
| | IRT-P211A10 | 1063117 |
| | IRT-P211A10S01 | 1063119 |
| | IRT-P212A10 | 1063123 |
| Male connector | IRT-P210E50S17 | 1063193 |
| | IRT-P211E30S07 | 1063110 |
| | IRT-P211E40 | 1063103 |
| | IRT-P211E50 | 1063104 |
| | IRT-P212E40 | 1063108 |
| | IRT-P310E50S15 | 1063191 |
| | IRTT-P210E50S14 | 1063189 |
| | IRXT-P210E50S16 | 1063192 |
| | IRT-P211A11 | 1063118 |
| | IRT-P212A11 | 1063124 |
| | IRTF-P210E41S09 | 1063112 |
| | IRTN-P210E41S08 | 1063113 |
| | IRT-P210E31S04 | 1063106 |
| | IRT-P211E31S02 | 1063111 |
| | IRT-P211E31S03 | 1063105 |
| | IRT-P211E41 | 1063107 |
| | IRT-P212E41 | 1063109 |
| | IRT-P006C83S05 | 1063097 |
| | IRT-P231C83 | 1063101 |
| | IRT-P232C75 | 1063099 |
| | IRT-P232C83 | 1063100 |
| | IRT-P232C83S19 | 1068794 |
| | IRX-P232C83S21 | 1077344 |
| | IRT-P006C83S06 | 1063098 |
| | IRT-P212C73 | 1063102 |

ZoneControl

MULTITASK PHOTOELECTRIC SENSORS

• Sub product family: IR

• Sensing range max.: 250 mm 1,500 mm

• Sensor principle: Photoelectric retro-reflective sensor

• Switching output: PNP

Connection type: male connectorAdjustment: Potentiometer

• Voltage type: DC

| Туре | Part no. |
|-------------|----------|
| IRL-P211E50 | 1063186 |
| IRL-P212E40 | 1085231 |
| IRL-P211E41 | 1063185 |

• Sub product family: R

• Sensing range max.: 60 mm 900 mm

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression

• Adjustment: Potentiometer

| Switching output | Switching mode | Connection type | Voltage type | Туре | Part no. |
|------------------|----------------------|-------------------------------------|--------------|-------------|----------|
| FET | Dark switching | Cable | AC/DC | RTF-M2117 | 1063198 |
| | | | | RT-M2117 | 1063197 |
| | | | | RTN-M2117 | 1063199 |
| | Light switching | Cable | AC/DC | RTF-M1117 | 1063195 |
| | | | | RT-M1117 | 1063194 |
| | | | | RTN-M1117 | 1063196 |
| NPN | Dark switching | Cable with | DC | RT-N2427 | 1063154 |
| | | male connector | | RT-N2525 | 1063159 |
| | | | | RT-N2526 | 1063160 |
| | | | | RT-N2528 | 1063161 |
| | | Male connector | DC | RT-N7231 | 1063164 |
| | Light switching | | DC | RT-N1000S05 | 1063143 |
| | nal connection | nai connection | | RT-N1000S06 | 1063144 |
| | | | | RT-N1000S07 | 1063145 |
| | | | | RT-N1620S08 | 1063146 |
| | | | | RT-N1623 | 1063151 |
| | | | | RT-N1627 | 1063152 |
| | | Cable with male connector | DC | RT-N1526 | 1085177 |
| | Light/dark switching | Cable | DC | RT-N3117 | 1063180 |
| | | Male connector | DC | RT-N3221 | 1063162 |
| NPN, PNP | Light switching | Cable with termi- nal connection | DC | RT-B1624S04 | 1063150 |

| Switching output | Switching mode | Connection type | Voltage type | Туре | Part no. |
|------------------|----------------------|----------------------------|--------------|-------------|----------|
| PNP | Dark switching | Cable | DC | RT-N2525S16 | 1065740 |
| | | | | RT-N2527S17 | 1065741 |
| | | | | RT-N2528S18 | 1065742 |
| | | Cable with | DC | RT-P2233 | 1063132 |
| | | male connector | | RT-P2420S03 | 1063133 |
| | | | | RT-P2422 | 1063176 |
| | | | | RT-P6423 | 1063167 |
| PNP | Dark switching | Cable with | DC | RT-P2525 | 1063156 |
| | | male connector | | RT-P2527 | 1063157 |
| | | | | RT-P2528 | 1063158 |
| | | Male connector | DC | RT-P2221 | 1077270 |
| | | | | RT-P2231 | 1063190 |
| | Light switching | Cable with termi- | DC | RT-P1620S01 | 1063147 |
| | | nal connection | | RT-P1625 | 1063149 |
| | | | | RT-P4000S02 | 1063169 |
| | | Cable | DC | RT-P1627 | 1066844 |
| | | | | RT-P4117 | 1063168 |
| | | Cable with | DC | RT-P1223 | 1063135 |
| | | male connector | | RT-P1233 | 1063136 |
| | | Male connector | DC | RT-P1221S10 | 1063163 |
| | Light/dark switching | Light/dark switching Cable | DC | RTF-P3117 | 1063181 |
| | | | | RTN-P3117 | 1063182 |
| | | | | RT-P3117 | 1063179 |
| | | | | RTQ-P4117 | 1063183 |
| | | Cable with | DC | RT-P3233 | 1081692 |
| | | male connector | | RT-P3223 | 1063130 |
| | | | | RT-P3227 | 1078930 |
| | | Male connector | DC | RTF-P3221 | 1063171 |
| | | | | RTN-P3221 | 1063172 |
| | | | | RT-P3221 | 1063129 |
| | | | | RT-P3231 | 1063131 |
| | | | | RTQ-P4221 | 1063173 |
| PNP, NPN | Dark switching | Cable | DC | RT-B2117 | 1063178 |
| | | | | RT-B2118 | 1063155 |
| | | | | RT-B2118S12 | 1065577 |
| | | Male connector | DC | RT-B2221 | 1063175 |
| | Light switching | Cable | DC | RT-B1117 | 1063153 |
| | | Male connector | DC | RT-B1221 | 1063174 |
| | Light/dark switching | Cable | DC | RTQ-B1117 | 1063184 |
| | | Male connector | DC | RTQ-B1221 | 1063177 |

• Sub product family: WLR

• Sensing range max.: 250 mm 5,000 mm

• Sensor principle: Photoelectric retro-reflective sensor

| Switching output | Switching mode | Connection type | Adjustment | Voltage type | Туре | Part no. |
|------------------|-----------------|-----------------|---------------|--------------|--------------|----------|
| PNP | Light switching | Male connector | Potentiometer | DC | WLR1-P410S01 | 1025651 |

Sub product family: ZLMSwitching output: PNP

• Connection type: Cable with female connector

• Voltage type: DC

| Adjustment | Туре | Part no. |
|------------|---------------|----------|
| - | ZLM1-B1011A10 | 7027800 |
| | ZLM1-B2011A10 | 7027802 |
| | ZLM1-B1011A11 | 7027801 |
| | ZLM1-B2011A11 | 7027803 |
| | ZLM1-B1111A10 | 7027768 |
| | ZLM1-B2111A10 | 7027770 |
| | ZLM1-B1111A11 | 7027769 |
| | ZLM1-B2111A11 | 7027771 |
| | ZLM1-B1211A10 | 7027784 |
| | ZLM1-B2211A10 | 7027786 |
| | ZLM1-B1211A11 | 7027785 |
| | ZLM1-B2211A11 | 7027787 |
| - | ZLM1-B1021A10 | 7027792 |
| | ZLM1-B2021A10 | 7027794 |
| | ZLM1-B1021A11 | 7027793 |
| | ZLM1-B2021A11 | 7027795 |
| | ZLM1-B1121A10 | 7027760 |

| Adjustment | Туре | Part no. |
|------------|------------------|----------|
| | ZLM1-B2121A10 | 7027762 |
| | ZLM1-B5121A10 | 7125166 |
| | ZLM1-B1121A11 | 7027761 |
| | ZLM1-B2121A11 | 7027763 |
| | ZLM1-B1221A10 | 7027776 |
| | ZLM1-B2221A10 | 7027778 |
| | ZLM1-B1221A11 | 7027777 |
| | ZLM1-B2221A11 | 7027779 |
| | ZLM1-B1421A10 | 7125211 |
| | ZLM1-B1421A11 | 7125212 |
| | ZLM1-B1521A10 | 1041942 |
| | ZLM1-B1521A11 | 1041943 |
| | ZLM1-B1451A10 | 1052126 |
| | ZLM1-B1421A10P01 | 7125160 |
| | ZLM1-C1011A10 | 7027796 |
| | ZLM1-C2011A10 | 7027798 |
| | ZLM1-C1011A11 | 7027797 |
| | ZLM1-C2011A11 | 7027799 |
| | ZLM1-C1111A10 | 7027764 |
| | ZLM1-C2111A10 | 7027766 |
| - | ZLM1-C1111A11 | 7027765 |
| | ZLM1-C2111A11 | 7027767 |
| | ZLM1-C1211A10 | 7027780 |
| | ZLM1-C2211A10 | 7027782 |
| | ZLM1-C1211A11 | 7027781 |

| Adjustment | Туре | Part no. |
|------------|---------------|----------|
| | ZLM1-C2211A11 | 7027783 |
| | ZLM1-C1021A10 | 7027788 |
| | ZLM1-C2021A10 | 7027790 |
| | ZLM1-C1021A11 | 7027789 |
| | ZLM1-C2021A11 | 7027791 |
| | ZLM1-C1121A10 | 7027756 |
| | ZLM1-C2121A10 | 7027758 |
| | ZLM1-C9121A10 | 7029642 |
| | ZLM1C1121S01 | 7028829 |
| | ZLM1C1121S03 | 7028978 |
| | ZLM1C2121S02 | 7028856 |
| | ZLM1C2121S04 | 7028979 |
| | ZLM1-C1121A11 | 7027757 |
| | ZLM1-C2121A11 | 7027759 |
| | ZLM1-C1221A10 | 7027772 |
| | ZLM1-C2221A10 | 7027774 |
| | ZLM1-C1221A11 | 7027773 |
| | ZLM1-C2221A11 | 7027775 |
| | ZLM1-C1451A10 | 7029987 |
| | ZLM1-C1451A11 | 7029988 |
| None | ZLM1-B1612E42 | 7028842 |
| | ZLM1-B1612E43 | 7028843 |
| | ZLM1-B5612E41 | 7028428 |
| | ZLM1-B1622E42 | 7028844 |
| | ZLM1-B1622E43 | 7028845 |

• Sub product family: WTR

• Sensing range max.: 300 mm 900 mm

Sensor principle: Photoelectric proximity sensor
 Detection principle: Background suppression

• Adjustment: Potentiometer

• Voltage type: DC

| Switching output | Switching mode | Connection type | Туре | Part no. |
|------------------|----------------------|-----------------|--------------|----------|
| NPN | Dark switching | Male connector | WTR2-N551S05 | 1019320 |
| | | | WTR2-N551S06 | 1019583 |
| | Light/dark switching | Male connector | WTR2-N551 | 1018877 |

| Switching output | Switching mode | Connection type | Туре | Part no. |
|------------------|----------------------|-----------------|-----------------|----------|
| PNP | Dark switching | Male connector | WTR1-P721 | 1015301 |
| | | | WTR1-P721S09 | 1016291 |
| | | | WTR1-P721S10 | 1017944 |
| | | | WTR1-P421 | 1013260 |
| | | | WTR1-P421S02 | 1015388 |
| | | | WTR1-P821 | 1015918 |
| | | | WTR1-P421S08 | 1016233 |
| | | | WTR2-P521 | 1015074 |
| | | | WTR2-P621 | 1015157 |
| | | | WTR2-P621S16 | 1026608 |
| | | | WTR2-P621S22 | 1040597 |
| | | | WTR2-P621S22P01 | 1046823 |
| | | | WTR2-P621S27 | 1042271 |
| | | | WTR2-P521S09 | 1024302 |
| | | | WTR2-P521S14 | 1025619 |
| | Light switching | Male connector | WTR2-P511 | 1015158 |
| | Light/dark switching | Male connector | WTR2-P551S08 | 1022927 |
| PNP, NPN | Dark switching | Cable | WTR2-P021S24 | 1041629 |
| | Light switching | Cable | WTR2-P511S20 | 1028700 |

ZoneControl

MULTITASK PHOTOELECTRIC SENSORS

• Sub product family: WTR

Sensing range max.: 100 mm 900 mm, 3.9 in 35.4 in
Sensor principle: Photoelectric proximity sensor
Detection principle: Background suppression

• Switching output: PNP

Switching mode: Dark switching
Connection type: male connector
Adjustment: Potentiometer

• Voltage type: DC

| Туре | Part no. |
|-----------------|----------|
| WTR1-P421A10 | 1025373 |
| WTR1-P421A12 | 7028797 |
| WTR1-P421B10 | 1025390 |
| WTR1-P721A11 | 1025374 |
| WTR1-P721B11 | 1025391 |
| WTR1-P921A10 | 1025375 |
| WTR1-P921B10 | 1025392 |
| WTR1-P421A10P01 | 7123916 |
| WTR1-P421A10P02 | 7125297 |
| WTR1-P421A10P03 | 7125298 |
| WTR1-P421B10P01 | 7125190 |
| WTR1-P921A10P02 | 1045621 |

Sub product family: WLR
Sensing range max.: 0 m 9 m

• Sensor principle: Photoelectric retro-reflective sensor

• Switching output: PNP

• Switching mode: Light switching

• Connection type: cable with male connector

• Adjustment: none

| Voltage type | Туре | Part no. |
|--------------|---------------|----------|
| AC | WLR2100-M6361 | 7027089 |
| | WLR2100-M6362 | 7027090 |
| DC | WLR2100-D1311 | 7027185 |
| | WLR2100-D1312 | 7027753 |
| | WLR2100-D1313 | 7028917 |
| | WLR2100-D1321 | 7027754 |
| | WLR2100-D1322 | 7027755 |
| | WLR2100-D2311 | 7027808 |
| | WLR2100-D2312 | 7027811 |
| | WLR2100-D2321 | 7027809 |
| | WLR2100-D2322 | 7027810 |

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

