

The cost-effective detection solution



Numerous housing and mounting options



Flexible sensor for countless logistics applications

Whether the housing is hybrid, cylindrical or cuboid, whether with integrated M18 thread or basic mount: The Z18 Simple Sense product family includes a wide range of housing shapes and, thanks to numerous mounting options, can be flexibly adapted to the respective on-site requirements. This makes these sensors the ideal economical and reliable detection solution for all types of logistics applications, regardless of the type of system and installation situation.







tems thanks to M18 standard thread.

Easy to integrate into various types of sys- Stepless alignment of the optics thanks to Fits into a wide variety of system designs the ball-shaped housing.

thanks to straight or angled cable outlet.



Easy integration: Thanks to the wide range of housing variants and mounting options, the sensors can be mounted in all types of plants with speed and flexibility.

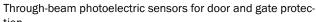
Reliable performance



High cost-effectiveness combined with reliable performance

The level of performance that has come to be expected of SICK does not have to be sacrificed at close range either: The Z18 Simple Sense sensors offer high ambient light immunity, they are reliable, and they are unlikely to suffer from interference. There is no chance of the sensors being adjusted inadvertently, as they have been reduced to the essentials. In addition, Z18 Simple Sense devices reduce downtime and impress with an excellent price/performance ratio.







Photoelectric retro-reflective sensors for applications on roller conveyors.



The reliable and cost-effective solution for standard applications at close range: Z18 Simple Sense photoelectric sensors offer maximum optical performance in a miniature size.









Technical data overview

| Dimensions (W x H x D) | 13.6 mm x 34.8 mm x 21.9 mm 13.6 mm x 42.9 mm x 33.3 mm 13.6 mm x 40.8 mm x 33.3 mm 13.6 mm x 44.2 mm x 33.3 mm 24 mm x 42.6 mm x 33.3 mm 24 mm x 31 mm x 22.4 mm 23.3 mm x 24 mm x 26 mm 14.4 mm x 20.5 mm x 23 mm 13.6 mm x 34.8 mm x 23 mm 13.6 mm x 45.1 mm x 31.7 mm 24 mm x 44.7 mm x 33.3 mm 14.4 mm x 18 mm x 23 mm 13.6 mm x 41.7 mm x 31.7 mm |
|-----------------------------|---|
| Functional principle detail | Dual lens Energetic Background suppression (depending on type) |
| Light source | LED / PinPoint LED (depending on type) |
| Type of light | Infrared light / visible red light (depending on type) |
| Enclosure rating | IP67 |
| Housing material | Plastic |
| Adjustment | None |

Product description

The Z18 Simple Sense sensors are the ideal detection solution for standard applications at close range. With a wide variety of housing options, mounting options and principles of operation, the hybrid photoelectric sensors are suitable for all types of detection environments. The sensors are easy to install and, thanks to their compact size, can be easily integrated into existing plants and systems even where space is limited. Thanks to this combination of exceptional performance and maximum economy, the Z18 Simple Sense sensors are the ideal solution anywhere reliable presence detection is required.

At a glance

- · Modern OES4 ASIC technology for excellent optical performance and ambient light immunity
- Housing formats: Cylindrical (with M18 thread), cuboid, and hybrid
- · Wide range of mounting options
- · Programmable switching outputs
- · No protection class II power supply unit required

Your benefits

- Simple and practical sensor solution for reliable presence detection
- Cost-effective detection: Optimum optical performance in a miniature size with excellent price/performance ratio
- · Minimal downtime: The sensor cannot be accidentally adjusted thanks to the simple design
- Flexible use: Thanks to the many housing and mounting options, Z18 Simple Sense sensors can be used in a wide range of application environments, even in the tightest spaces
- · High compatibility: Programmable switching output for easy integration into existing systems
- · Low installation costs thanks to quick and easy mounting

Fields of application

- · Standard applications on conveyor belts
- · Simple applications in factory automation
- · Doors, gates, and turnstiles
- Access gates
- Customer-specific solutions and logistics applications

Ordering information

Other models and accessories → www.sick.com/Z18_Simple_Sense

- Communication interface: -
- Mounting system type: M18, head/side (24.1 ... 25.4 mm)

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|-----------------|----------|
| Photoelec- tric proxim- | 0 150 mm | 50 mm | NPN, Light switching | Not connected | Male connector M8, 4-pin | ZTB18-BNZ3A1D02 | 1118609 |
| ity sensor, Background suppression | | | PNP, Dark switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZTB18-2FZ1G1D02 | 1099195 |
| | | | PNP, Light switching | Not connected | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-APZ4B1D02 | 1100590 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-2AB1G1D02 | 1095787 |
| | | 100 mm | | | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-2AB4B1D02 | 1095789 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-2AB5B1D02 | 1095791 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-2AB1G1D04 | 1095788 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-2AB4B1D04 | 1095790 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-2AB5B1D04 | 1095792 |
| Photoelectric proximity sen- sor, Energetic | 500 1000 mm | 700 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTE18-2AB1G2 | 1095833 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTE18-2AB4B2 | 1095834 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTE18-2AB5B2 | 1095835 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|-------------------------|---------------------------------------|--|-----------------|----------|
| Photoelec- tric retro-re- flective sen- sor, Dual lens | 4 7 m | 5 m | - | PNP, Light switching ¹⁾ | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-2ZHAG8 | 1124562 |
| | | | NPN, Dark switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-2EZ1G8 | 1100596 |
| | | | NPN, Light switching | Not connected | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-ANZ4B8 | 1096984 |
| | | | | | Cable with | ZLD18-ANZAE8 | 1096976 |
| | | | | | connector RJ11, 6-pin, 1,000 mm | ZLD18-ANZAE8P10 | 1096993 |
| | | | | | Cable with | ZLD18-ANZAF8 | 1096978 |
| | | | | | connector RJ11, 6-pin, 1,500 mm | ZLD18-ANZAF8P10 | 1096994 |
| | | | | | Cable with | ZLD18-ANZAG8 | 1096979 |
| | | | | | connector RJ11, 6-pin, 2,000 mm | ZLD18-ANZAG8P10 | 1096995 |
| | | | | | Cable with | ZLD18-ANZAH8 | 1096980 |
| | | | | | connector RJ11, 6-pin, 2,500 mm | ZLD18-ANZAH8P10 | 1096996 |
| | | | | | Cable with | ZLD18-ANZAK8 | 1096981 |
| | | | | | connector RJ11, 6-pin, 3,000 mm | ZLD18-ANZAK8P10 | 1096997 |
| | | | | | Cable with con- | ZLD18-ANZAD8 | 1096975 |
| | | | | | nector RJ11, 6- pin, 500 mm | ZLD18-ANZAD8P10 | 1096992 |
| | | | PNP, Dark | Not connected | Cable open | ZLD18-2FZ1G8 | 1099303 |
| | | | switching | | end, 4-wire, 2,000 mm | ZLD18-AFZ1G8 | 1096983 |
| | | | | | Cable with | ZLD18-AFZ4B8 | 1096986 |
| | | | | | M12 male connector, 4- pin, 150 mm | ZLD18-BFZ4B8 | 1100620 |
| Photoelec- tric retro-re- flective sen- sor, Dual lens | 4 7 m | 5 m | PNP, Dark switching | Not connected | Cable with M8 male con- nector, 4- pin, 150 mm | ZLD18-AFZ3B8 | 1100630 |
| | Sol, Buar lens | | | | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-2FZ3G8 | 1097107 |
| | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-AFZAG8 | 1100621 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|-----------------------------------|--------------------|------------------------|------------------------|---|--|-----------------|----------|
| | | | | | Male connector M12, 4-pin | ZLD18-BFZ4A8 | 1100593 |
| | 5 m | | | | Male connector M8, 4-pin | ZLD18-BFZ3A8 | 1100625 |
| | | | | | Terminal con- | ZLD18-BFZCG8 | 1100594 |
| | | | | nection Wago 733-103, 3- pin, 2,000 mm | ZLD18-BFZCG8P32 | 1100595 | |
| | | PNP, Dark switching | Not connected | Terminal connection Wago 733-103, 3-pin, 800 mm | ZLD18-1FZC18 | 1089971 | |
| | | | | | Terminal con- | ZLD18-BFZDG8 | 1100617 |
| | | | | | nection Wago 733-104, 4- pin, 2,000 mm | ZLD18-BFZDG8P32 | 1100618 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. | |
|-----------------------------------|-----------------------|---------------|--------------------------------------|------------------------|---|---|--|---------|
| | | | | PNP, Alarm output | Cable with M8 male con- nector, 4- pin, 800 mm | ZLD18-2FT318 | 1125206 | |
| | | | | | Terminal con- nection Wago 733-104, 4- pin, 800 mm | ZLD18-2FTD18 | 1089969 | |
| | | | | PNP, Health output | Male connector M12, 4-pin | ZLD18-2FR4A8 | 1099304 | |
| | | | PNP, Dark switching ¹⁾ | Not connected | Cable with M8 male con- nector, 4-pin, 1,000 mm | ZLD18-2KZ3E8 | 1097873 | |
| | | | | | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-2KZ3G8 | 1097874 | |
| | | | | | Cable with connector RJ11, 6-pin, 1,000 mm | ZLD18-2KZAE8 | 1097821 | |
| | | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-2KZAG8 | 1097820 |
| | | | | PNP, Health output | Cable with M8 male con- nector, 4-pin, 1,000 mm | ZLD18-2KR3E8 | 1126948 | |
| | | | | | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-2KR3G8 | 1126944 | |
| | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-2KRAG8 | 1126942 | |
| | | | | | Cable with con- nector RJ11, 6- pin, 800 mm | ZLD18-2KRA18 | 1099219 | |
| | | | PNP, Light switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-APZ1G8 | 1096982 | |
| | | | | | Cable open end, 4-wire, 3,000 mm | ZLD18-APZ1K8 | 1096988 | |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-APZ4B8 | 1096985 | |
| | | | | | Cable with M12 male connector, 4- pin, 2,000 mm | ZLD18-BPZ4G8 | 1100609 | |
| | | | | | Cable with M8 male con- nector, 4- pin, 150 mm | ZLD18-APZ3B8 | 1096987 | |
| 8 PHOTOELEC | TRIC SENSORS SICK | | | | Cable with connector | Product family overview ZLD18-APZAE8 Subject to o | 2024-07-09 12:10:55 1096989 hange without notice | |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|---------------------------------|---------------|---|--|--|--------------|----------|
| Photoelec- tric retro-re- flective sen- sor, Dual lens | tric retro-re- flective sen- | 5 m | PNP, Light switching | PNP, Dark switching | Cable with M8 male con- nector, 4- pin, 150 mm | ZLD18-2PF3B8 | 1131591 |
| | | | PNP, Light switching ¹⁾ | Not connected | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-2HZ3G8 | 1127421 |
| | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-2HZAG8 | 1099217 |
| | | | Push-pull: PNP/NPN, Light switching | Not connected | Cable with connector M8, 3-pin, 150 mm | ZLD18-2AZ2B8 | 1101160 |
| | | | | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-2AB1G8 | 1095736 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-2AB4B8 | 1095737 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZLD18-2AB5B8 | 1095738 |
| | | 7.8 m | NPN, Dark switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-2EZ1G2 | 1099177 |
| | | | NPN, Light switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-2NZ1G2 | 1099159 |
| | | | PNP, Dark switching | Not connected | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-2FZ4B2 | 1124136 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|-----------------------------------|---------------------|---------------|-----------------------------|----------------------------|---|--|--|
| | | | | | Cable with con- nector RJ11, 6- pin, 150 mm | ZLD18-2FZAB2 | 1104801 |
| | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-2FZAG2 | 1110913 |
| | | | | | Terminal connection Wago 733-103, 3-pin, 1,000 mm | ZLD18-1FZCE2 | 1124386 |
| | | | | | Terminal connection Wago 733-103, 3-pin, 2,000 mm | ZLD18-1FZCG2 | 1124387 |
| | | | | | Terminal connection Wago 733-103, 3-pin, 3,000 mm | ZLD18-1FZCK2 | 1124388 |
| | | | | | Terminal connection Wago 733-104, 4-pin, 1,000 mm | ZLD18-1FZDE2 | 1124384 |
| | | | | | Terminal connection Wago 733-104, 4-pin, 2,000 mm | ZLD18-1FZDG2 | 1123163 |
| | | | | | Terminal con- nection Wago 733-104, 4- pin, 3,000 mm | ZLD18-1FZDK2 | 1124385 |
| | | | | | Terminal con- nection Wago 733-104, 4- pin, 800 mm | ZLD18-2FZD12 | 1133296 |
| | | | PNP, Light switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-1PZ1G2 | 1129030 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-1PZ4B2 | 1129031 |
| | | | | | Cable with connector M8, 3-pin | ZLD18-2PZ2A2 | 1099400 |
| | | | | | Cable with connector RJ11, 6-pin, 1,000 mm | ZLD18-APZAE2 | 1123668 |
| | | | | | Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-APZAG2 | 1137361 |
| | | Push-pull: | Push-pull: | Cable open | ZLD18-2AB1G2 | 1095724 | |
| | | | PNP/NPN, Light switching | PNP/NPN, Dark switching | end, 4-wire, 2,000 mm | ZLD18-2AB1G2P11 | 1103573 |
| | | | | M con | Cable with M12 male | ZLD18-2AB4B2 | 1095725 |
| 10 PHOTOELEC | TRIC SENSORS SICK | | | | connector, 4- pin, 150 mm | ZLD18-2AB4B2P11 ZLD18-2AB4B2P37 | 1103574 |
| | . , | | | | Cable with | ZLD18-ZAB4B2P37 Subject to c ZLD18-2AB5B2 | 1103575 hange without notice 1095726 |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|--------------|----------|
| | | | | | M8, 4-pin, snap, 150 mm | | |
| Through-beam 12 20 m photoelectric sensor | 12 20 m | 17 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-2AB1G3 | 1095845 |
| | | | | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-2AB4B3 | 1095847 | |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-2AB5B3 | 1095849 |
| | 20 45 m | 22 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-2AB1G8 | 1095846 |
| | | | | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-2AB4B8 | 1095848 | |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-2AB5B8 | 1095850 |

¹⁾ Open Collector.

- Communication interface: -
- Mounting system type: M18, head/M18, base

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|-----------------|----------|
| Photoelec- tric proxim- | 0 150 mm | 50 mm | NPN, Dark switching | Not connected | Male connector M12, 4-pin | ZTB18-4EZ4A1D02 | 1100592 |
| ity sensor, Background suppression | | | PNP, Light switching | Not connected | Male connector M12, 4-pin | ZTB18-4PZ4A1D02 | 1100591 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-4AB1G1D02 | 1095793 |
| | | | | | Male connector M12, 4-pin | ZTB18-4AB4A1D02 | 1095795 |
| | | | | | Male connector M8, 4-pin | ZTB18-4AB3A1D02 | 1095870 |
| | | 100 mm | PNP, Light switching | Not connected | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-4PZ4B2D04 | 1128292 |
| | | | | | Cable with connector M8, 3-pin, 150 mm | ZTB18-4PZ2B2D04 | 1109590 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-4AB1G1D04 | 1095794 |
| | | | | | Male connector | ZTB18-4AB4A1D04 | 1095796 |
| | | | | | M12, 4-pin | ZTB18-4AB4A1S48 | 1102856 |
| | | | | | Male connector M8, 4-pin | ZTB18-4AB3A1D04 | 1095871 |
| | | 150 mm | PNP, Light switching | Not connected | Cable with connector M8, 3-pin, 150 mm | ZTB18-4PZ2B2D06 | 1137500 |
| | | | | PNP, Health output | Male connector M12, 4-pin | ZTB18-4PR4A1D06 | 1110981 |
| Photoelectric proximity sensor, Energetic | 500 1000 mm | 700 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTE18-4AB1G2 | 1095836 |
| | | | | | Male connector M12, 4-pin | ZTE18-4AB4A2 | 1091823 |
| | | | | | Male connector M8, 4-pin | ZTE18-4AB3A2 | 1095874 |
| | | 740 mm | PNP, Dark switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZTE18-4FZ1G8 | 1131320 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTE18-4FZ4B8 | 1131328 |
| | | | | | Cable with con- nector RJ11, 6- pin, 150 mm | ZTE18-4FZAB8 | 1131330 |
| | | | | | Male connector M8, 4-pin | ZTE18-4FZ3A8 | 1131322 |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|-------------------------|----------------------|---|--|--------------|----------|
| Photoelec- tric retro-re- flective sen- | ic retro-re- | 5 m NPN, Dark switching | , | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-4EZ1G8 | 1100627 |
| sor, Dual lens | | | | Male connector M12, 4-pin | ZLD18-4EZ4A8 | 1100624 | |
| | | | | Terminal connection Wago 733-103, 3-pin, 500 mm | ZLD18-4EZCD8 | 1099278 | |
| | | NPN, Light switching | NPN, Alarm output | Cable open end, 4-wire, 2,000 mm | ZLD18-4NS1G8 | 1099297 | |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|-----------------------------------|--------------------|---------------|---|--|---|-----------------|----------|
| | | | | NPN, Health output | Cable with connector RJ11, 6-pin, 1,500 mm | ZLD18-4NQAF8 | 1099282 |
| | | | | Not connected | Male connector M12, 4-pin | ZLD18-4NZ4A8 | 1104867 |
| | | | PNP, Dark switching | Not connected | Cable open end, 4-wire, 2,000 mm | ZLD18-4FZ1G8 | 1100622 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-4FZ4B8 | 1131245 |
| | | | | | Male connector M12, 4-pin | ZLD18-4FZ4A8 | 1099298 |
| | | | | | Male connector M8, 4-pin | ZLD18-4FZ3A8 | 1100623 |
| | | | | PNP, Health output | Male connector M12, 4-pin | ZLD18-4FR4A8 | 1100629 |
| | | | PNP, Light switching | , 0 | Cable open end, 4-wire, 2,000 mm | ZLD18-4PZ1G8 | 1099296 |
| | | | | | Male connector M12, 4-pin | ZLD18-4PZ4A8 | 1099295 |
| | | | | | Male connector M8, 4-pin | ZLD18-4PZ3A8 | 1089836 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-4AB1G8 | 1095739 |
| | | | | | Male connector M12, 4-pin | ZLD18-4AB4A8 | 1095740 |
| | | | | | Male connector M8, 4-pin | ZLD18-4AB3A8 | 1095873 |
| | | 7.8 m | NPN, Dark | Not connected | 300 mm | ZLD18-4EZ0C2S19 | 1100631 |
| | | | switching | | | ZLD18-4EZ0C2S20 | 1100632 |
| | | | PNP, Dark switching | PNP, Alarm output | Terminal con- nection Wago 733-104, 4- pin, 800 mm | ZLD18-4FTD12 | 1112876 |
| | | | PNP, Light switching | Not connected | Cable with connector M8, 3-pin, 150 mm | ZLD18-4PZ2B2 | 1109591 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-4AB1G2 | 1095727 |
| | | | | | Male connector M12, 4-pin | ZLD18-4AB4A2 | 1095728 |
| | | | | | Male connector M8, 4-pin | ZLD18-4AB3A2 | 1095872 |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|-----------------------|---------------|--|--|--|--------------|----------|
| Through-beam 12 20 m photoelec- tric sensor | 12 20 m | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-4AB1G3 | 1095851 |
| | | | | Male connector M12, 4-pin | ZSE18-4AB4A3 | 1095853 | |
| | | | | Male connector M8, 4-pin | ZSE18-4AB3A3 | 1095855 | |
| | 20 45 m | 22 m | 22 m Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-4AB1G8 | 1095852 |
| | | | | | Male connector M12, 4-pin | ZSE18-4AB4A8 | 1095854 |
| | | | | | Male connector M8, 4-pin | ZSE18-4AB3A8 | 1095856 |

- Communication interface: -
- Mounting system type: 24 mm, ball/M18, base

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|-------------------------|------------------------|--|--------------|----------|
| Photoelec- tric retro-re- flective sen- sor, Dual lens | 4 7 m | 5 m | NPN, Light switching | NPN, Health output | Cable with connector RJ11, 6-pin, 1,500 mm | ZLD18-5NQAF8 | 1134317 |
| | | | | Not connected | Cable with male connec- tor M8, 4- pin, snap, 2,000 mm | ZLD18-5NZ5G8 | 1099294 |
| | | | PNP, Light switching | Not connected | Male connector M8, 4-pin | ZLD18-5PZ3A8 | 1089834 |
| | | | | PNP, Alarm output | Male connector M8, 4-pin | ZLD18-5PT3A8 | 1089835 |
| Through-beam photoelectric sensor | 20 45 m | 22 m | PNP, Light switching | Not connected | Male connector M8, 4-pin | ZSE18-5PZ3A8 | 1133214 |

- Communication interface: -
- Mounting system type: Side (24.1 ... 25.4 mm)

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|--|-----------------------|---------------|---|--|--|-----------------|----------|
| Photoelec- tric proxim- ity sensor, Background suppression | 0 150 mm | 150 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-7AB1G1D06 | 1106124 |
| Photoelec- | 4 7 m 5 m | 5 m | PNP, Light switching ¹⁾ | Not connected | Cable open | ZLD18-7HZ1G8 | 1098622 |
| tric retro-re- flective sen- | | | | | end, 4-wire, 2,000 mm | ZLD18-GHZ1G8 | 1098352 |
| sor, Dual lens | | 7.8 m | NPN, Dark | Not connected | Cable open | ZLD18-7EZ1G2 | 1104282 |
| | | | switching | | end, 4-wire, 2,000 mm | ZLD18-7EZ1G2P38 | 1104283 |
| | | | PNP, Light switching | PNP, Dark switching | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-7PF4B2 | 1103896 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|-----------------------------------|--------------------|---------------|---|--|---|--------------|----------|
| Through-beam | 12 20 m | 17 m | NPN, Dark | Not connected | Cable open | ZSE18-7JZ1G3 | 1091128 |
| photoelec- tric sensor | | | switching ¹⁾ | | end, 4-wire, 2,000 mm | ZSE18-GJZ1G3 | 1091132 |
| | | | NPN, Light | Not connected | Cable open | ZSE18-7GZ1G3 | 1090302 |
| | | | switching ¹⁾ | | end, 4-wire, 2,000 mm | ZSE18-GGZ1G3 | 1091130 |
| | | | PNP, Dark Not co switching ¹⁾ | Not connected | Cable open | ZSE18-7KZ1G3 | 1091129 |
| | | | | | end, 4-wire, 2,000 mm | ZSE18-GKZ1G3 | 1091133 |
| | | | PNP, Light | Not connected | Cable open | ZSE18-7HZ1G3 | 1091127 |
| | | | switching ¹⁾ | | end, 4-wire, 2,000 mm | ZSE18-GHZ1G3 | 1091131 |
| | 20 45 m | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 1,000 mm | ZSE18-7AB1E8 | 1102788 |
| | | | | | Cable with M8 male con- nector, 4- pin, 150 mm | ZSE18-7AB3B8 | 1131451 |

¹⁾ Open Collector.

• Communication interface: -

• Mounting system type: 24 mm, ball, without alignment aid

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|-----------------|----------|
| Photoelec- tric proxim- ity sensor, | 0 150 mm | 50 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-8AB1G1D02 | 1095797 |
| Background suppression | | | | Push-pull: PNP/NPN, Dark switching | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-8AB4B1D02 | 1095799 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-8AB5B1D02 | 1095801 |
| | | 100 mm | Push-pull: PNP/NPN, Light switching | | Cable open end, 4-wire, 2,000 mm | ZTB18-8AB1G1D04 | 1095798 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-8AB4B1D04 | 1095800 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-8AB5B1D04 | 1095802 |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|---|--|--------------|----------|
| Photoelectric proximity sen- sor, Energetic | 500 1000 mm | 700 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTE18-8AB1G2 | 1095837 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTE18-8AB4B2 | 1095838 |
| | | m 5 m | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTE18-8AB5B2 | 1095839 |
| Photoelec- tric retro-re- flective sen- sor, Dual lens | 4 7 m | 5 m | PNP, Dark switching | Not connected | Terminal connection Wago 733-103, 3-pin, 500 mm | ZLD18-8FZCD8 | 1099293 |
| | | | PNP, Light switching | PNP, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-8PF1G8 | 1119935 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-8AB1G8 | 1095733 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-8AB4B8 | 1095734 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZLD18-8AB5B8 | 1095735 |
| | | 7.8 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-8AB1G2 | 1095701 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-8AB4B2 | 1095722 |
| | | | | Cable with con- nector RJ11, 6- pin, 150 mm | ZLD18-8ABAB2 | 1104800 | |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZLD18-8AB5B2 | 1095723 |

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|-----------------------------------|--------------------|---------------|---|--|--|--------------|----------|
| Through-beam photoelectric sensor | 12 20 m | 17 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-8AB1G3 | 1095857 |
| | | | | Push-pull: PNP/NPN, Dark switching | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-8AB4B3 | 1095859 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-8AB5B3 | 1095861 |
| | 20 45 m | 22 m | Push-pull: PNP/NPN, Light switching | | Cable open end, 4-wire, 2,000 mm | ZSE18-8AB1G8 | 1095858 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-8AB4B8 | 1095860 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-8AB5B8 | 1095862 |

- Communication interface: -
- Mounting system type: M18, head/dovetail mounting with base

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|-----------------|----------|
| Photoelec- tric proxim- ity sensor, | 0 150 mm | 50 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-9AB1G1D02 | 1095803 |
| Background suppression | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-9AB4B1D02 | 1095805 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-9AB5B1D02 | 1095807 |
| | | 100 mm | NPN, Light switching | Not connected | Cable with M8 male con- | ZTB18-9NZ3D1D04 | 1121997 |
| | | | NPN, Light switching ¹⁾ | Not connected | nector, 4- pin, 500 mm | ZTB18-9GZ3D1D04 | 1123622 |
| | | | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTB18-9AB1G1D04 | 1095804 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTB18-9AB4B1D04 | 1095806 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTB18-9AB5B1D04 | 1095808 |
| Photoelectric proximity sen- sor, Energetic | 500 1000 mm | 700 mm | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZTE18-9AB1G2 | 1095840 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZTE18-9AB4B2 | 1095841 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZTE18-9AB5B2 | 1095842 |

 $^{^{1)}}$ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|--|--|--------------|----------|
| Photoelec- tric retro-re- flective sen- | 4 7 m | 5 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-9AB1G8 | 1095741 |
| sor, Dual lens | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-9AB4B8 | 1095742 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZLD18-9AB5B8 | 1095743 |
| | | 7.8 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-9AB1G2 | 1095730 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-9AB4B2 | 1095731 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZLD18-9AB5B2 | 1095732 |
| Through-beam photoelectric sensor | 12 20 m | m 17 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-9AB1G3 | 1095863 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-9AB4B3 | 1095865 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-9AB5B3 | 1095867 |
| | 20 45 m | 20 45 m 22 m | Push-pull: PNP/NPN, Light switching | Push-pull: PNP/NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZSE18-9AB1G8 | 1095864 |
| | | | | | Cable with M12 male connector, 4- pin, 150 mm | ZSE18-9AB4B8 | 1095866 |
| | | | | | Cable with male connector M8, 4-pin, snap, 150 mm | ZSE18-9AB5B8 | 1095868 |

¹⁾ Open Collector.

- Sensor/ detection principle: Photoelectric retro-reflective sensor, Dual lens
- Sensing range max.: 4 ... 7 m

| Sensing range | Switching output Q1 | Switching output Q2 | Connection type | Туре | Part no. |
|---------------|------------------------------------|---------------------|-------------------------------------|--------------|------------|
| 5 m | NPN, Light switching ¹⁾ | Not connected | Cable open end, 4-wire, 1,000 mm | ZLD18-2GZ1E8 | On request |

¹⁾ Open Collector.

• Mounting system type: M18, head/side (24.1 ... 25.4 mm)

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|-------------------------|------------------------|--|-----------------|----------|
| Photoelec- tric proxim- ity sensor, | 0 150 mm | 50 mm | PNP, Light switching | Not connected | Cable with connector M8, 3-pin, 150 mm | ZTB18-2PZ2B2D02 | 1143408 |
| Background suppression | | 100 mm | PNP, Light switching | Not connected | Cable with connector M8, 3-pin, 150 mm | ZTB18-2PZ2B2D04 | 1143379 |
| | | | | | Cable with male connec- tor RJ9, 4- pin, 300 mm | ZTB18-2PZBC2D04 | 1141239 |

¹⁾ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---------------------------------------|------------------------|--|-----------------|----------|
| Photoelec- tric retro-re- flective sen- sor, Dual lens | 4 7 m | 5 m | PNP, Dark switching | Not connected | Cable with M8 male con- nector, 4-pin, 1,000 mm | ZLD18-2FZ3E8 | 1111260 |
| | | | | | Terminal connection Wago 733-103, 3-pin, 800 mm | ZLD18-2FZC18 | 1096447 |
| | | 7.8 m | | PNP, Health output | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-2FR3G8 | 1141745 |
| | | | | | Terminal connection Wago 733-104, 4-pin, 2,000 mm | ZLD18-2FRDG8 | 1142374 |
| | | | PNP, Dark switching | Not connected | Cable with M8 male con- nector, 4- pin, 150 mm | ZLD18-2FZ3B2 | 1138610 |
| | | | PNP, Light switching | Not connected | Cable with M12 male connector, 4- pin, 150 mm | ZLD18-2PZ4B2 | 1140593 |
| | | | | | Cable with M8 male con- nector, 4- pin, 0 mm | ZLD18-BPZ302S93 | 1142021 |
| | | | | | Cable with con- nector RJ11, 6-pin, 0 mm | ZLD18-BPZA02S93 | 1142022 |
| | | | | | Cable with male connec- tor RJ9, 4- pin, 300 mm | ZLD18-2PZBC2 | 1141231 |
| | | | PNP, Light switching ¹⁾ | Not connected | Cable with M8 male con- nector, 4-pin, 1,000 mm | ZLD18-BHZ3E2 | 1142646 |
| | | | | | Cable with M8 male con- nector, 4-pin, 2,000 mm | ZLD18-BHZ3G2 | 1142647 |

¹⁾ Open Collector.

• Mounting system type: M18, head/M18, base

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Switching output Q2 | Connec- tion type | Туре | Part no. |
|---|--------------------|---------------|---|------------------------|---|-----------------|----------|
| Photoelec- tric proxim- | 0 150 mm | 50 mm | PNP, Light switching | Not connected | Male connector M12, 4-pin | ZTB18-4PZ4A2D02 | 1139619 |
| ity sensor, Background suppression | | 100 mm | NPN, Dark switching ¹⁾ | Not connected | Male connector M8, 4-pin | ZTB18-4JZ3A2D04 | 1140196 |
| | | | NPN, Light switching ¹⁾ | Not connected | Male connector M8, 4-pin | ZTB18-4GZ3A2D04 | 1140200 |
| | | | PNP, Light switching | Not connected | Male connector M12, 4-pin | ZTB18-4PZ4A2D04 | 1139919 |
| Photoelectric proximity sen- sor, Energetic | 500 1000 mm | 700 mm | Push-pull: PNP/NPN, Light switching | Not connected | Male connector M12, 4-pin | ZTE18-DAZ4A2 | 1142373 |
| Photoelec- | 4 7 m | 5 m | PNP, Light | Not connected | Cable with | ZLD18-4PZ4C8 | 1143378 |
| tric retro-re- flective sen- sor, Dual lens | | | switching | PNP, Dark switching | M12 male connector, 4- pin, 300 mm | ZLD18-4PF4C8 | 1140009 |
| | or, Buartone | | | | Cable with M8 male con- nector, 4- pin, 150 mm | ZLD18-4PF3B8 | 1137774 |

¹⁾ Open Collector.

• Communication interface: -

• Mounting system type: M18, head/dovetail mounting

• Switching output Q2: Not connected

| Sensor/ detec- tion principle | Sensing range max. | Sensing range | Switching output Q1 | Connection type | Туре | Part no. |
|---|--------------------|---------------|------------------------|-------------------------------------|-----------------|----------|
| Photoelectric proximity sen- sor, Background suppression | 0 150 mm | 50 mm | NPN, Light switching | Cable open end, 4-wire, 2,000 mm | ZTB18-6NZ1G2D02 | 1123275 |
| | | | PNP, Light switching | Cable open end, 4-wire, 2,000 mm | ZTB18-6PZ1G2D02 | 1123223 |
| | | 100 mm | NPN, Light switching | Cable open end, 4-wire, 2,000 mm | ZTB18-6NZ1G2D04 | 1123267 |
| | | | PNP, Light switching | Cable open end, 4-wire, 2,000 mm | ZTB18-6PZ1G2D04 | 1123271 |

 $^{^{1)}}$ Open Collector.

| Sensor/ detection principle | Sensing range max. | Sensing range | Switching output Q1 | Connection type | Туре | Part no. |
|--|--------------------|---|------------------------------------|---|------------------------------|----------|
| Photoelectric retro-reflective sensor, Dual lens | 4 7 m | 7.8 m | NPN, Dark switching | Cable open end, 4-wire, 2,000 mm | ZLD18-6EZ1G2 ZLD18-6NZ1G2 | 1123273 |
| | | | NPN, Light switching | Cable open end, 4-wire, 2,000 mm | | 1123251 |
| | | NPN, Light switching 1) PNP, Dark cable open end, 4-wire, 2,000 mm PNP, Dark switching 4-wire, 2,000 mm | | | ZLD18-6GZ1G2 | 1136749 |
| | | | | ZLD18-6FZ1G2 | 1123272 | |
| | | | ZLD18-6FZ1G2P49 | 1125207 | | |
| | | | PNP, Light switching | Cable open end, 4-wire, 2,000 mm | ZLD18-6PZ1G2 | 1123222 |
| | | | | Cable with con- nector RJ11, 6- pin, 1,000 mm | ZLD18-FPZAE2 | 1125595 |
| | | | PNP, Light switching ¹⁾ | | ZLD18-FHZAE2 | 1126393 |

¹⁾ Open Collector.

- Mounting system type: Side (24.1 ... 25.4 mm)
- Sensor/ detection principle: Photoelectric retro-reflective sensor, Dual lens
- Sensing range max.: 4 ... 7 m

| Sensing range | Switching output Q1 | Switching output Q2 | Connection type | Туре | Part no. |
|---------------|----------------------|---------------------|---|--------------|----------|
| 7.8 m | PNP, Light switching | PNP, Dark switching | Cable with M8 male connector, 4-pin, 150 mm | ZLD18-7PF3B2 | 1130379 |

- Mounting system type: M18, head/dovetail mounting
- Sensor/ detection principle: Photoelectric retro-reflective sensor, Dual lens
- Sensing range max.: 4 ... 7 m
- \bullet Sensing range: 7.8~m
- Switching output Q1: PNP, Light switching (Open Collector.)
- Switching output Q2: Not connected

| Connection type | Туре | Part no. |
|--|-----------------|----------|
| Cable with connector RJ11, 6-pin, 2,000 mm | ZLD18-FHZAG2S75 | 1131108 |
| Cable with connector RJ11, 6-pin, 3,000 mm | ZLD18-FHZAK2S75 | 1131109 |
| Cable with connector RJ11, 6-pin, 500 mm | ZLD18-FHZAD2S75 | 1131106 |

- Mounting system type: M18, head/dovetail mounting with base
- Sensor/ detection principle: Photoelectric proximity sensor, Background suppression
- Sensing range max.: 0 ... 150 mm

| Sensing range | Switching output Q1 | Switching output Q2 | Connection type | Туре | Part no. |
|---------------|-----------------------------------|---------------------|---|-----------------|----------|
| 100 mm | NPN, Dark switching ¹⁾ | Not connected | Cable with M8 male connector, 4-pin, 500 mm | ZTB18-9JZ3D1D04 | 1139470 |

¹⁾ Open Collector.

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