

## /// 96 series



Regardless of operating principle, regardless of whether metal or plastic housing, regardless of whether DC or AC supply – the sensors of this series are all-rounders. With their large optical surface, IP 67 or IP 69K safety class and optional optics heating, they will win you over with their reliable detection with high function reserves, large operating ranges and a multitude of options under rough environmental conditions.



## Throughbeam sensors

Throughbeam photoelectric sensors with particularly high function reserve using visible red light or infrared light and numerous options.

## LS 96

Sturdy throughbeam photoelectric sensors with high function reserve using visible red light or infrared light for standard applications. Models with optics heating are also available for delivery.

## Benefits:

- Complementary outputs for standard applications and a wide range of input and output variants for optimal adaptation to the application
- Versatile options with warning output, activation input and switching delay
- Models with optics heating for use at low temperatures

Part no.	Part description	Operating range [m] Op. range limit [m]	Light source	Connection	Description
50031574	▶ LSS 96M-120W-43	0 ... 30 m 0 ... 39 m	LED, red	Connector, M12, 4-pin, metal	DC
50031575	◀ LSE 96M/P-181W-41	0 ... 30 m 0 ... 39 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC
50082040	▶ LSS 96M-180W-44	0 ... 30 m 0 ... 39 m	LED, red	Connector, M12, 4-pin, metal	AS-Interface IO
50082039	◀ LSE 96M/A-182W-44	0 ... 30 m 0 ... 39 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz, AS-Interface IO
50032129	▶ LSS 96M-1206-43	0 ... 30 m 0 ... 39 m	LED, red	Connector, M12, 4-pin, metal	DC, heating
50025197	◀ LSE 96M/P-1170-42	0 ... 30 m 0 ... 39 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, light switching, DC, 270 ° potentiometer, warning output, time function
50032128	◀ LSE 96M/P-1816-41	0 ... 30 m 0 ... 39 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, heating
50080657	▶ LSS 96K-1213-24	0 ... 30 m 0 ... 39 m	LED, red	Terminal, 3-pin	DC, activation input
50030269	◀ LSE 96K/P-1140-21	0 ... 30 m 0 ... 39 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50032004	▶ LSS 96M-175W-26	0 ... 30 m 0 ... 39 m	LED, red	Terminal, 2-pin	AC/DC
50032003	◀ LSE 96M/R-176W-25	0 ... 30 m 0 ... 39 m		Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching, AC/DC, 270 ° potentiometer
50025217	▶ LSS 96M-1200-23	0 ... 30 m 0 ... 39 m	LED, red	Terminal, 2-pin	DC
50025195	◀ LSE 96M/P-1170-22	0 ... 30 m 0 ... 39 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, light switching, DC, 270 ° potentiometer, warning output, time function
50103290	▶ LSS 96M-1090-43	0 ... 120 m 0 ... 150 m	LED, infrared	Connector, M12, 4-pin, metal	DC, activation input, heating
50103291	◀ LSE 96M/P-3012-41	0 ... 120 m 0 ... 150 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, heating
50106871	▶ LSS 96M-1093-24	0 ... 120 m 0 ... 150 m	LED, infrared	Terminal, 3-pin	DC, heating, activation input
50033328	◀ LSE 96M/P-3012-21	0 ... 120 m 0 ... 150 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, heating
50025228	▶ LSS 96M-1070-43		LED, infrared	Connector, M12, 4-pin, metal	DC
50034128	◀ LSE 96M/P-3010-41	0 ... 120 m 0 ... 150 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50025205	◀ LSE 96M/P-1040-42	0 ... 50 m 0 ... 65 m		Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, light switching, DC, 270 ° potentiometer, warning output, time function

▶ transmitter / ◀ receiver

Part no.	Part description	Operating range [m] Op. range limit [m]	Light source	Connection	Description
50025223	▶ LSS 96M-1090-24		LED, infrared	Terminal, 3-pin	DC, activation input, heating
50033328	◀ LSE 96M/P-3012-21	0 ... 120 m 0 ... 150 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, heating
50025201	◀ LSE 96M/P-1130-22	0 ... 50 m 0 ... 65 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, light switching, DC, 270 ° potentiometer, activation input, warning output, heating, time function
50025225	▶ LSS 96M-1070-23		LED, infrared	Terminal, 2-pin	DC
50082296	◀ LSE 96M/P-3010-21	0 ... 120 m 0 ... 150 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50031295	◀ LSE 96M/N-1010-27	0 ... 50 m 0 ... 65 m		Terminal, 4-pin	Switching frequency: 500 Hz; Digital switching output 1: transistor, NPN, light switching; Digital switching output 2: transistor, NPN, dark switching, DC, 270 ° potentiometer
50080081	▶ LSS 96M-1350-26		LED, infrared	Terminal, 2-pin	AC/DC
50031651	◀ LSE 96M/R-3310-25	0 ... 120 m 0 ... 150 m		Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching; Digital switching output 2: relay, dark switching, AC/DC, 270 ° potentiometer
50080080	◀ LSE 96M/R-1310-25	0 ... 50 m 0 ... 65 m		Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching, AC/DC, 270 ° potentiometer

▶ transmitter / ◀ receiver

## Retro-reflective sensors

Polarized and unpolarized retro-reflective photoelectric sensors with particularly high function reserve using visible red light or infrared light and other options.

### (P)RK 96

Polarized and unpolarized retro-reflective photoelectric sensors with large operating range using visible red light. Extensive input/output models for optimal adaptation to the application. The product range also contains sensors for detection of transparent objects (e. g. clear glass, PET, foil).

#### Benefits:

- Complementary outputs for standard applications and a wide range of input and output variants for optimal adaptation to the application
- Connection via comfortable terminal compartment up to 1.5 mm<sup>2</sup> or metal M12 connector
- Multiple options with warning output, activation input, switching delays and optics heating for use at low temperatures

Part no.	Part description	Operating range [m] Op. range limit [m]	Light source	Connection	Description
50041042	PRK 96K/P-3368-41	0.3 ... 26 m 0.1 ... 28 m	LED, red	Connector, M12, 4-pin, plastic	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50035351	PRK 96K/R-3428-25	0.3 ... 20 m 0.1 ... 24 m	LED, red	Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching, AC/DC, 270 ° potentiometer
50107216	PRK 96K/R-3428.1-25	0.3 ... 20 m 0.1 ... 24 m	LED, red	Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light/dark reversible, AC/DC, 270 ° potentiometer
50082067	PRK 96M/A-3410-44	0.3 ... 15 m 0.1 ... 18 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz, 270 ° potentiometer, AS-Interface IO
50061452	PRK 96M/P-3380-41	0.3 ... 15 m 0.1 ... 18 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, time function
50082066	PRK 96M/R-3420-25	0.3 ... 15 m 0.1 ... 18 m	LED, red	Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching, AC/DC, 270 ° potentiometer
50061111	PRK 96M/R-3430-25	0.3 ... 15 m 0.1 ... 18 m	LED, red	Terminal, 5-pin	Switching frequency: 20 Hz; Digital switching output 1: relay, NC/NO, light switching, AC/DC, 270 ° potentiometer
50102379	PRK 96M/N-3366-27	0.3 ... 15 m 0.1 ... 18 m	LED, red	Terminal, 4-pin	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, NPN, light switching; Digital switching output 2: transistor, NPN, dark switching, DC, 270 ° potentiometer, heating
50082065	PRK 96M/P-3360-21	0.3 ... 15 m 0.1 ... 18 m	LED, red	Terminal, 4-pin	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50081325	PRK 96K/N-1380-46	0 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 500 Hz; Digital switching output 1: transistor, NPN, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, time function
50082092	PRK 96M/P-1361-47	0.3 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer
50104279	PRK 96M/P-1361.1-47	0.3 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light/dark reversible, DC, 270 ° potentiometer
50080477	PRK 96M/P-1362-47	0.3 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, 270 ° potentiometer, activation input, heating
50025186	PRK 96M/P-1370-42	0.3 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, light switching, DC, 270 ° potentiometer
50031549	PRK 96M/P-1400-42	0.3 ... 8 m 0.1 ... 10 m	LED, red	Connector, M12, 4-pin, metal	Switching frequency: 1,000 Hz; Digital switching output 1: transistor, PNP, light switching; Digital switching output 2: transistor, PNP, dark switching, DC, multivolt potentiometer, 270 ° potentiometer, warning output, heating, time function

Detailed information on operating ranges in combination with reflectors can be found in the respective data sheet (online)