



PHOTOELECTRIC SENSORS: SERIES 5050



- ✓ Sensor series in **standard housings** \varnothing 50 x 50 x 18 mm
- ✓ **Designed to cost**
- ✓ **Sensing face of PMMA**
- ✓ **Polarizing filter** (reflex sensors)
- ✓ **High system reserves** (excess gain)
- ✓ **Pre-failure warning** (pollution monitoring)
- ✓ **Changeover outputs**
- ✓ **AC/DC models**

TECHNICAL DATA

| | |
|--|---------------------------------|
| (according to IEC 60947-5-2) | |
| Housing material | ABS |
| Hysteresis | 10 % typ. |
| Supply voltage range U_B (DC) | 10 ... 36 VDC |
| Supply voltage range U_B (AC/DC) | 20 ... 250 VAC / 20 ... 300 VDC |
| Max. ripple content (DC) | \leq 20 % |
| Output current (total of both outputs/DC) | \leq 200 mA |
| Output voltage drop (DC) | \leq 2.0 V at 200 mA |
| Max. switching frequency | 1,000 Hz (DC) / 50 Hz (AC/DC) |
| Switching time (\uparrow and \downarrow) | 0.5 msec (DC) / 10 msec (AC/DC) |
| Max. ambient light: | |
| halogen | 5,000 Lux |
| sun | 10,000 Lux |
| Ambient temperature range | -5 ... +55 °C |
| Degree of protection | IP 65 |
| EMC protection: | |
| IEC 60947-5-2 (7.2.3.1) | 5 kV |
| IEC 61000-4-2 | Level 2 |
| IEC 61000-4-3 | Level 3 |
| IEC 61000-4-4 | Level 3 |
| IEC 61000-4-6 | Level 2 |
| Short-circuit protection | Built-in (DC) |
| Polarity reversal protection | Built-in (DC) |
| Power-on reset | Built-in (DC) |

Sensor series in standard housings \varnothing 50 x 50 x 18 mm. High system reserves (excess gain), changeover outputs, AC/DC models and polarized reflex sensors. Pollution monitoring (green LED) in case of reduced system reserves prevents downtime caused by pollution. Particularly suited for

- ✓ **packaging machines**
- ✓ **machine tool industry**
- ✓ **filling systems**
- ✓ **elevator industry**
- ✓ **stock & conveyor systems**

HOUSING SIZE

50 X 50 X 18

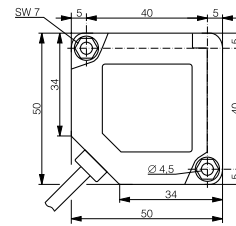
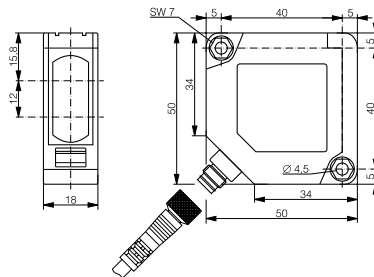
SENSING RANGE

DIFFUSE SENSOR
300 mm

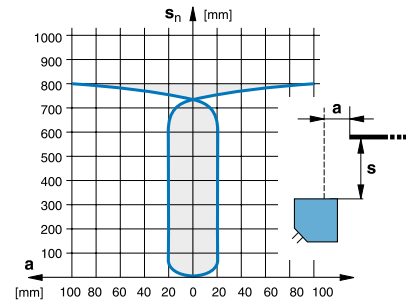
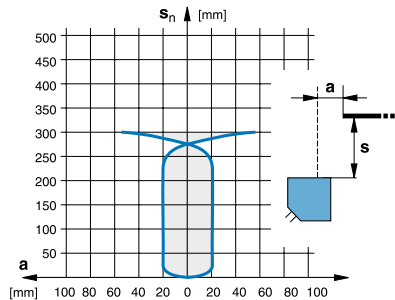
DIFFUSE SENSOR
800 mm



Dimensions:



Response curves:



TECHNICAL DATA

| | | |
|----------------------------------|--------------------|--------------------|
| Sensing range | 300 mm | 800 mm |
| Standard target | 100 x 100 mm white | 200 x 200 mm white |
| No-load supply current (DC) | ≤ 15 mA | ≤ 15 mA |
| Emitter | LED red 648 nm | LED red 648 nm |
| Approvals | CE, RoHS | CE, RoHS |
| Weight (cable / connector model) | 95 / 30 g | 95 / 30 g |

PART REFERENCES

| | | |
|-------------------------------------|------------------------------------|------------------------------------|
| (bold: preferred types) | | |
| DC NPN changeover outputs / cable | LTK-5050-101-501 | LTK-5050-101 |
| DC NPN light-ON + excess gain/cable | LTK-5050-102-501 | LTK-5050-102 |
| DC NPN changeover outputs / S8 | LTS-5050-101-501 | LTS-5050-101 |
| DC NPN light-ON + excess gain / S8 | LTS-5050-102-501 | LTS-5050-102 |
| DC PNP changeover outputs / cable | LTK-5050-103-501 | LTK-5050-103 |
| DC PNP light-ON + excess gain/cable | LTK-5050-104-501 | LTK-5050-104 |
| DC PNP changeover outputs / S8 | LTS-5050-103-501 | LTS-5050-103 |
| DC PNP light-ON + excess gain / S8 | LTS-5050-104-501 | LTS-5050-104 |
| AC/DC relay light-ON / cable | LTK-5050-115-501 | LTK-5050-115 |
| Compatible connectors (page 268) | E, F | E, F |
| Wiring (pages 198-199) | Diagram 2 (DC) / Diagram 5 (AC/DC) | Diagram 2 (DC) / Diagram 5 (AC/DC) |

HOUSING SIZE

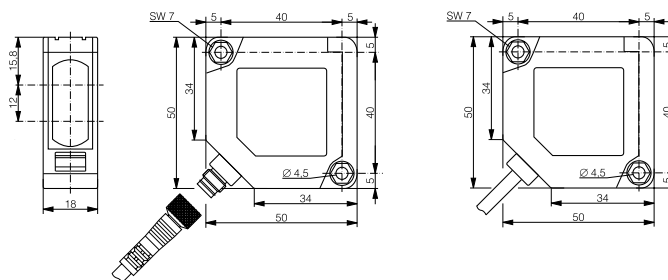
50 X 50 X 18

SENSING RANGE

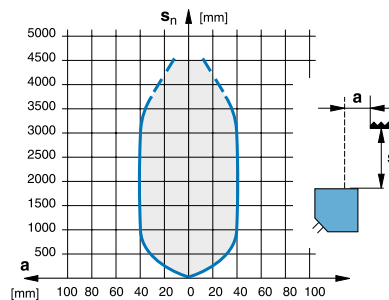
REFLEX SENSOR (POLARIZED)
4,000 mm



Dimensions:



Response curve:



TECHNICAL DATA

| | | |
|----------------------------------|--------------------------|--|
| Sensing range | 4,000 mm | |
| Reflector (page 197) | Reflector type 3* | |
| No-load supply current (DC) | ≤ 15 mA | |
| Emitter | LED red polarized 660 nm | |
| Approvals | CE, RoHS | |
| Weight (cable / connector model) | 90 / 35 g | |

PART REFERENCES

| | | |
|-------------------------------------|------------------------------------|--|
| (bold: preferred types) | | |
| DC NPN changeover outputs / cable | LRK-5050-101 | |
| DC NPN light-ON + excess gain/cable | LRK-5050-102 | |
| DC NPN changeover outputs / S8 | LRS-5050-101 | |
| DC NPN light-ON + excess gain / S8 | LRS-5050-102 | |
| DC PNP changeover outputs / cable | LRK-5050-103 | |
| DC PNP light-ON + excess gain/cable | LRK-5050-104 | |
| DC PNP changeover outputs / S8 | LRS-5050-103 | |
| DC PNP light-ON + excess gain / S8 | LRS-5050-104 | |
| AC/DC relay light-ON / cable | LRK-5050-115 | |
| Compatible connectors (page 268) | E, F | |
| Wiring (pages 198-199) | Diagram 2 (DC) / Diagram 5 (AC/DC) | |

* 3,000 mm sensing range with reflector type 15

