



PHOTOELECTRIC SENSORS: SERIES 6080



- ✓ **Universal sensor series** \varnothing 65 x 83 x 25 mm for **rough industrial applications**
- ✓ **Autocollimation principle** (reflex sensors)
- ✓ **Pre-failure warning** (pollution monitoring)
- ✓ **AC/DC models**

TECHNICAL DATA

| | |
|---|---------------------------------------|
| (according to IEC 60947-5-2) | |
| Housing material | Glass-fiber reinforced PBTP (Crastin) |
| Hysteresis | 10 % typ. |
| Supply voltage range U_B (DC) | 10 ... 36 VDC |
| Supply voltage range U_B (AC/DC) | 20 ... 265 VAC / 20 ... 320 VDC |
| Max. ripple content* | \leq 20 % |
| Output current* | \leq 200 mA |
| Output voltage drop* | \leq 2.0 V at 200 mA |
| Max. switching frequency* | 1,000 Hz / 250 Hz (LH) |
| Switching time (\uparrow and \downarrow)* | 0.5 msec / 2 msec (LH) |
| Max. ambient light: | |
| halogen | 5,000 Lux |
| sun | 10,000 Lux |
| Ambient temperature range | -5 ... +55 °C |
| Degree of protection | IP 67 |
| EMC protection: | |
| IEC 60947-5-2 (7.2.3.1) | 1 kV |
| IEC 61000-4-2 | Level 3 |
| IEC 61000-4-3 | Level 3 |
| IEC 61000-4-4 | Level 3 |
| Short-circuit protection | Built-in |
| Polarity reversal protection | Built-in |
| Power-on reset | Built-in |

* DC models (AC/DC see data sheet)

Universal sensor series \varnothing 65 x 83 x 25 mm for rough industrial applications. Reflex sensors with autocollimation principle. Pollution monitoring (green LED) in case of reduced system reserves (excess gain) prevents downtime caused by pollution. Particularly suited for

- ✓ **crane installations**
- ✓ **paper machines**
- ✓ **doors & gates**
- ✓ **woodworking machines**
- ✓ **palletizers**
- ✓ **steel industry**
- ✓ **heavy duty conveyor systems**
- ✓ **chemical industry**
- ✓ **automotive industry**

HOUSING SIZE

65 X 83 X 25

SENSING RANGE

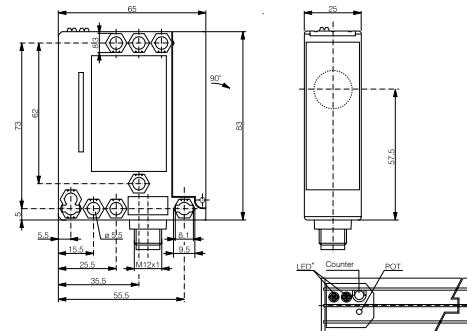
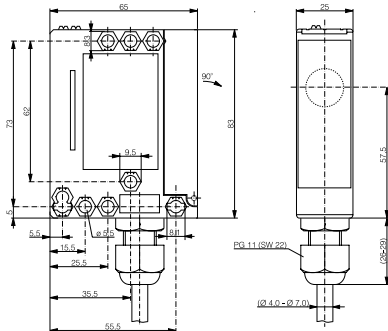
REFLEX SENSOR (POLARIZED)
6,000 mm

THROUGH-BEAM SENSOR
50,000 mm

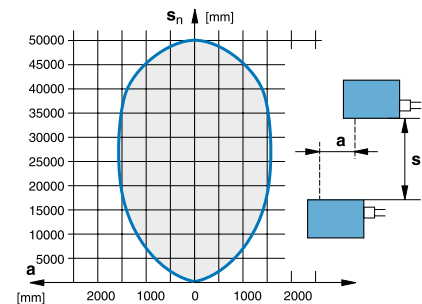
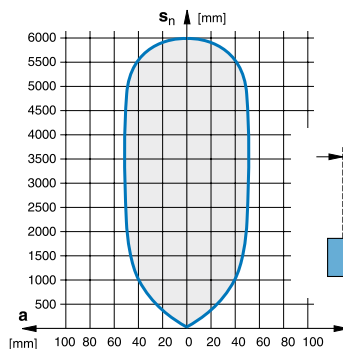


Dimensions:

* receiver only



Response curves:



TECHNICAL DATA

| | | |
|---|--------------------------|-------------------------------------|
| Sensing range | 6,000 mm | 50,000 mm |
| Reflector (page 197) | Reflector type 3 | --- |
| No-load supply current (DC)/voltage (AC/DC) | ≤ 30 mA / < 2 VA | ≤ 15 mA (R) / ≤ 15 mA (E) // < 2 VA |
| Emitter | LED red polarized 660 nm | IR LED 880 nm |
| Approvals | CE, UL, RoHS | CE, UL, RoHS |
| Weight | 100 g | 200 g (R and E) |

PART REFERENCES

| (bold: preferred types) | | (R) receiver / (E) emitter |
|-------------------------------------|------------------------------|---|
| DC NPN / connector S12 | LRS-6080-102* | LLS-6080-002 (R) / LLS-6080-000 (E) |
| DC NPN / screw terminal | LRT-6080-102 | LLT-6080-002 (R) / LLT-6080-000 (E) |
| DC NPN timer*** / connector S12 | LRS-6080-152** | LLS-6080-052 (R) / LLS-6080-000 (E) |
| DC NPN timer*** / screw terminal | LRT-6080-152 | LLT-6080-052 (R) / LLT-6080-000 (E) |
| DC PNP / connector S12 | LRS-6080-104* | LLS-6080-004 (R) / LLS-6080-000 (E) |
| DC PNP / screw terminal | LRT-6080-104 | LLT-6080-004 (R) / LLT-6080-000 (E) |
| DC PNP timer*** / connector S12 | LRS-6080-154** | LLS-6080-054 (R) / LLS-6080-000 (E) |
| DC PNP timer*** / screw terminal | LRT-6080-154 | LLT-6080-054 (R) / LLT-6080-000 (E) |
| AC/DC relay / connector S12 | LRS-6080-115** | LLS-6080-015 (R)* / LLS-6080-010 (E) |
| AC/DC relay / screw terminal | LRT-6080-115 | LLT-6080-015 (R) / LLT-6080-010 (E) |
| AC/DC relay/timer***/connector S12 | LRS-6080-165** | LLS-6080-065 (R)* / LLS-6080-010 (E) |
| AC/DC relay/timer***/screw terminal | LRT-6080-165 | LLT-6080-065 (R) / LLT-6080-010 (E) |
| Compatible connectors (page 268) | M, N (**O, P) | M, N (*O, P) |
| Wiring (pages 198-199) | 2 (DC*) / 3 (DC) / 5 (AC/DC) | 2 (R; DC) / 4 (E; DC) / 5 (AC/DC) |

*** light-ON / dark-ON switchable