



Photoelectric sensors
Z3, Photoelectric retro-reflective sensor

ZL3-F2431



Model Name > [ZL3-F2431](#)
Part No. > [1045539](#)



Product may differ from illustration

At a glance

- 4.8 m sensing distance; no setting options
- Transparent housing with 360° status indication
- 24 mm ball mount allows for infinite adjustability
- Spherical eyeball-style housing
- Connection system: straight cable outlet

Your benefits

- Low-cost, retro-reflective sensor for standard applications
- Clear housing provides 360° status indication, which simplifies troubleshooting
- Special accessories that allow for infinite adjustability



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
Housing design (light emission):	Hybrid
Housing length:	25 mm
Sensing range max.:	0.1 m ... 4.8 m ¹⁾
Sensing range:	0.1 m ... 3 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Light spot (distance):	125 mm (1 m)
Wave length:	660 nm

^{1) 2)} PL80A ³⁾ Average service life 100,000 h at Ta = +25 °C

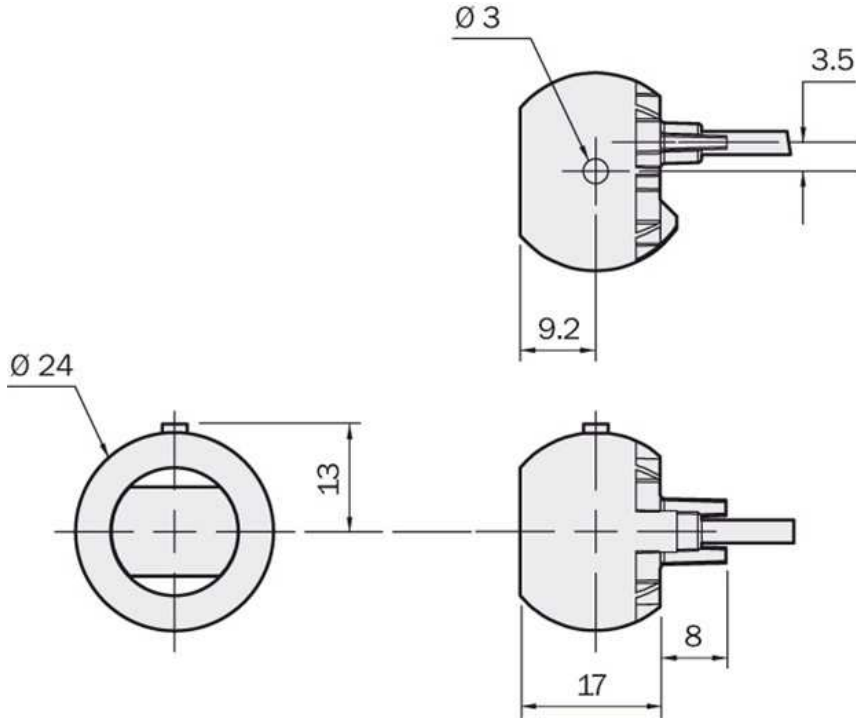
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	< 20 mA ³⁾
Output type:	PNP, Dark-switching
Output current I _{max} ·:	50 mA
Switching frequency:	400 Hz ⁴⁾
Connection type:	Cable with plug, M8, 4-pin, 150 mm ⁵⁾
Circuit protection::	A ^{6) 7)} D
Protection class:	III ⁸⁾
Polarisation filter:	✓

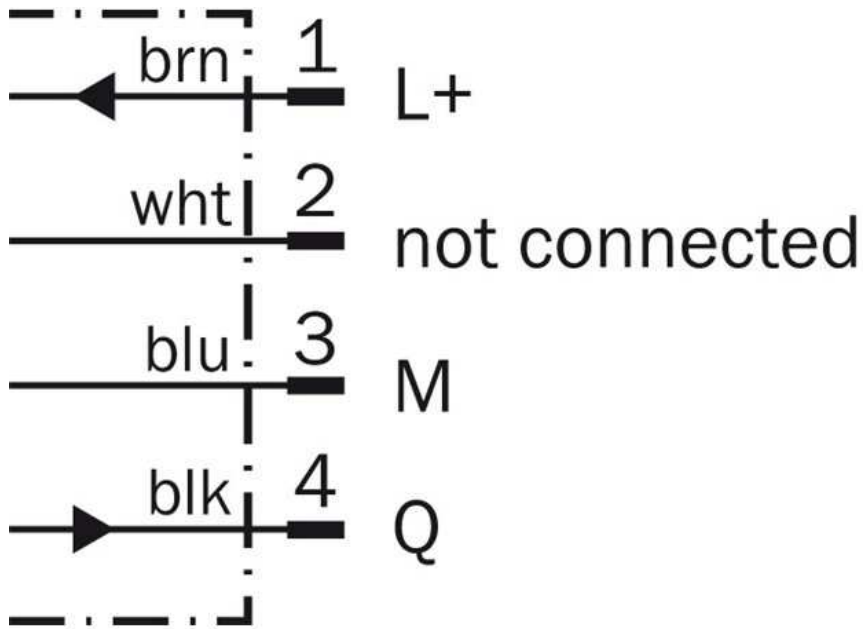
Housing material: Glass fiber reinforced ABS plastic
 Enclosure rating: IP 67
 Ambient operating temperature: -25 °C ... 50 °C
 Ambient storage temperature: -40 °C ... 70 °C

1) Limit values 2) May not exceed or fall short of V_S 3) Without load 4) With light/dark ratio 1:1 5) Do not bend below 0 °C 6) A = VS connections reverse-polarity protected 7) D = outputs overcurrent and short-circuit protected 8) Reference voltage 50 V DC

Dimensional drawing



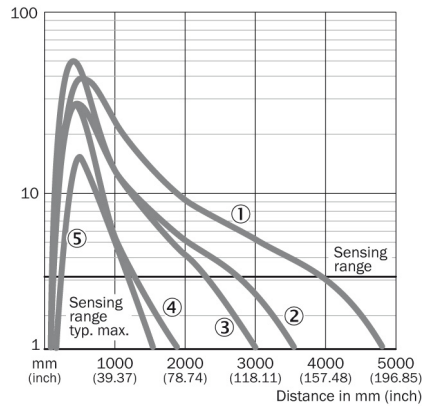
Connection diagram



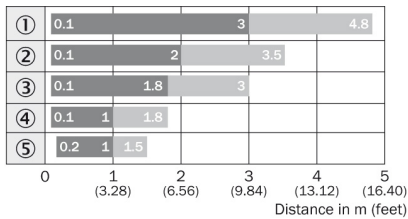
Connection type



Characteristic curve



Sensing range diagram



Reflector type

- ① PL80A
- ② P250
- ③ PL40A
- ④ PL20A
- ⑤ REF-PLUS

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