



Photoelectric sensors
Z3, Photoelectric retro-reflective sensor

ZL3-N2415



Model Name > [ZL3-N2415](#)
Part No. > [1045529](#)



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

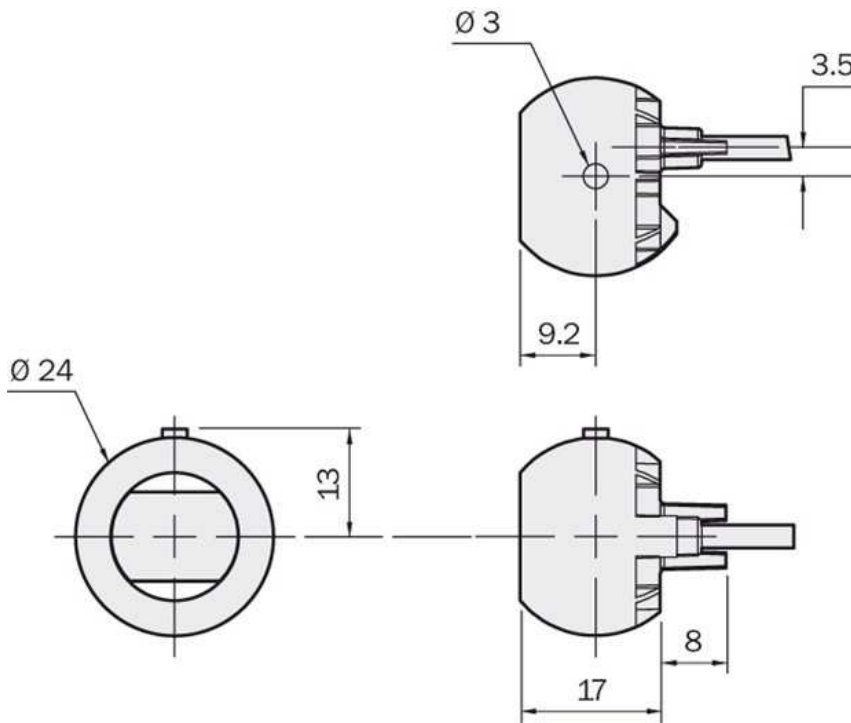
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	< 20 mA ³⁾
Output type:	NPN, Light-switching
Output current I _{max} :	50 mA
Switching frequency:	400 Hz ⁴⁾
Connection type:	Cable, 3-wire, 2 m ⁵⁾
Cable material:	PVC
Conductor cross-section:	0.23 mm ²
Circuit protection::	A ^{6) 7)} D

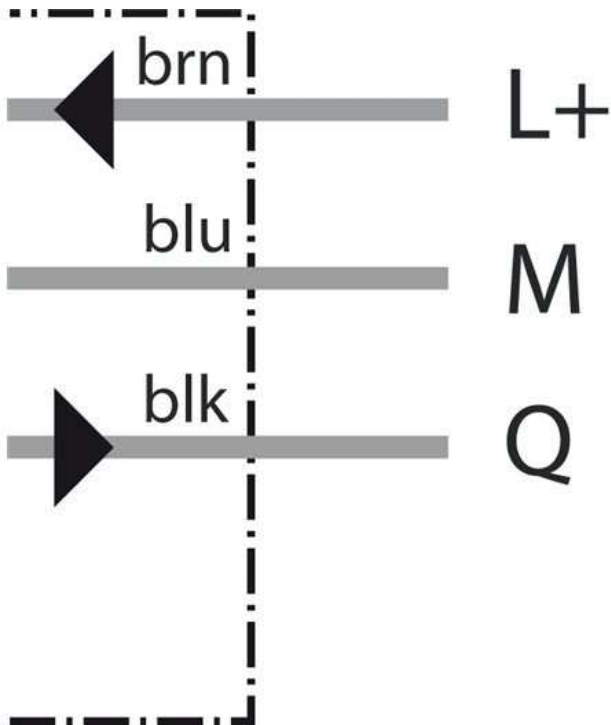
Protection class:	III ⁸⁾
Polarisation filter:	✓
Housing material:	Glass fiber reinforced ABS plastic
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... 50 °C
Ambient storage temperature:	-40 °C ... 70 °C

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

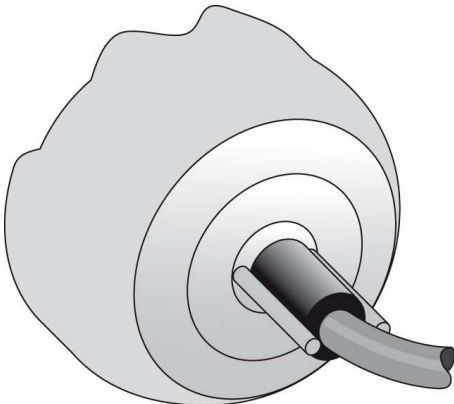
Dimensional drawing



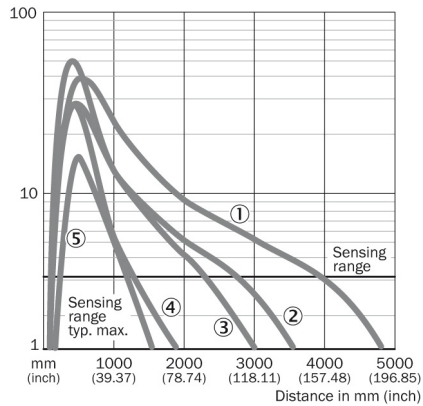
Connection diagram



Connection type



Characteristic curve



Sensing range diagram

①	0.1	3	4.8
②	0.1	2	3.5
③	0.1	1.8	3
④	0.1	1	1.8
⑤	0.2	1	1.5

0 1 2 3 4 5
 (3.28) (6.56) (9.84) (13.12) (16.40)
 Distance in m (feet)

■ Sensing range ■ Sensing range typ. max.

Reflector type

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

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