



Photoelectric sensors  
Z-Sensor, Photoelectric retro-reflective sensor,  
Standard optics

ZL3-F2425



**Model Name** > ZL3-F2425  
**Part No.** > 1066618



Illustration may differ

**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, Standard optics
Housing design (light emission):	Hybrid
Housing length:	25 mm
Sensing range max.:	0.1 m ... 4.8 m <sup>1)</sup>
Sensing range:	0.1 m ... 3 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
Wave length:	660 nm
Light spot size (distance):	125 mm (1 m)

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

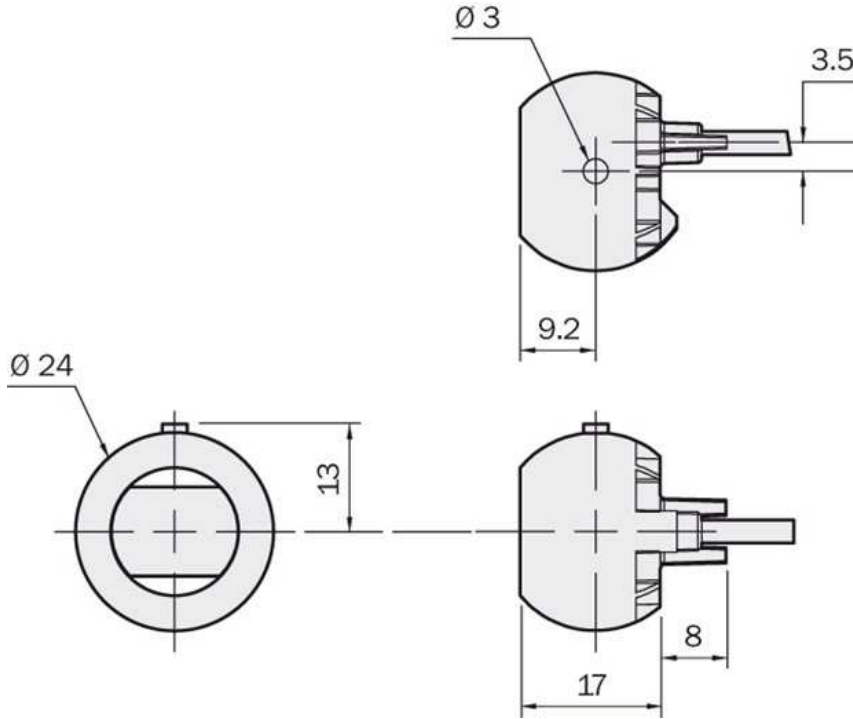
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	< 5 Vpp <sup>2)</sup>
Power consumption:	< 20 mA <sup>3)</sup>
Output type:	PNP
Switching mode:	Dark switching
Output current I <sub>max.</sub> :	50 mA
Switching frequency:	± 400 Hz <sup>4)</sup>
Electrical connection:	Cable with connector M12, 4-pin, 2 m <sup>5)</sup>
Circuit protection::	A, D <sup>6) 7)</sup>
Protection class:	III <sup>8)</sup>
Polarisation filter:	✓

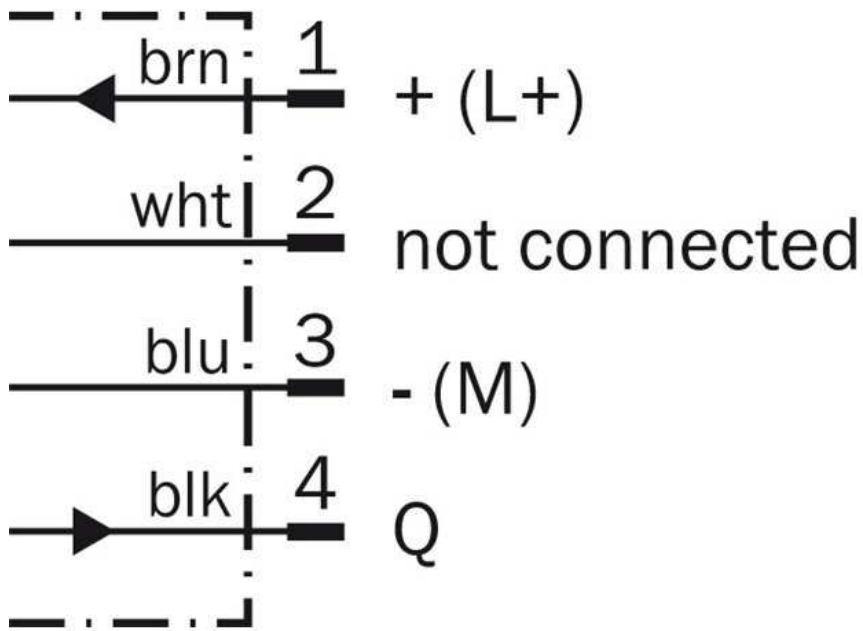
Housing material: Glass fiber reinforced ABS plastic, Plastic  
 Enclosure rating: IP 67  
 Ambient operating temperature: -25 °C ... 50 °C  
 Ambient storage temperature: -40 °C ... 70 °C

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

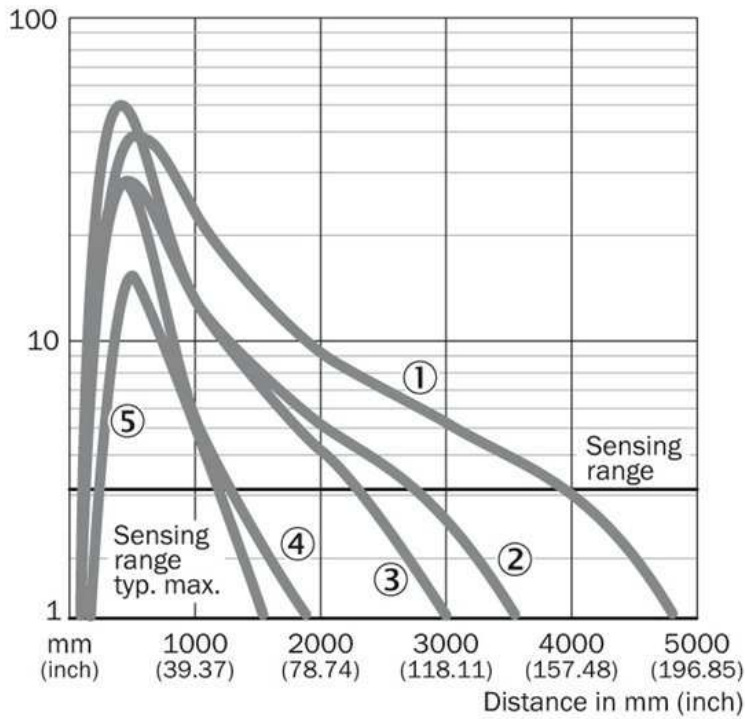
**Dimensional drawing**



### Connection diagram

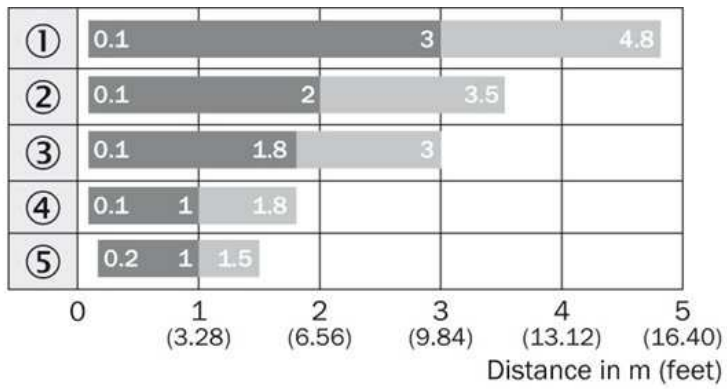


### Characteristic curve



- [1] PL80A
- [2] P250
- [3] PL40A
- [4] PL20A
- [5] Reflective tape REF-Plus

## Sensing range diagram



- |1| PL80A
- |2| P250
- |3| PL40A
- |4| PL20A
- |5| Reflective tape REF-Plus

■ Sensing range                      ■ Sensing range typ. max.

## Reflector type

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

## Connection type



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