



Photoelectric sensors Z2, Photoelectric retro-reflective sensor

ZL2-F2415



Model Name > ZL2-F2415
Part No. > 1045389



Illustration may differ

At a glance

- Photoelectric retro-reflective sensor with 4.8 m sensing distance; no setting options
- Compact, transparent housing with 360° status indication
- M18 front mount and 24-25.2 mm slotted side through holes compatible with competitor devices
- Connection system: angled cable outlet (60°) or M12 or M8 plug connector

Your benefits

- Low-cost retro-reflective sensor for standard applications
- Clear housing provides 360° status indication, which simplifies troubleshooting
- Unique mounting options lower installation costs
- Small size fits applications with limited space
- Compatibility with competitor products for easy integration into existing systems



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
Dimensions (W x H x D):	13.6 mm x 34.8 mm x 21.9 mm
Housing design (light emission):	Hybrid
Thread diameter (housing):	M18 x 1
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⁾
Wave length:	660 nm
Light spot size (distance):	125 mm (1 m)

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

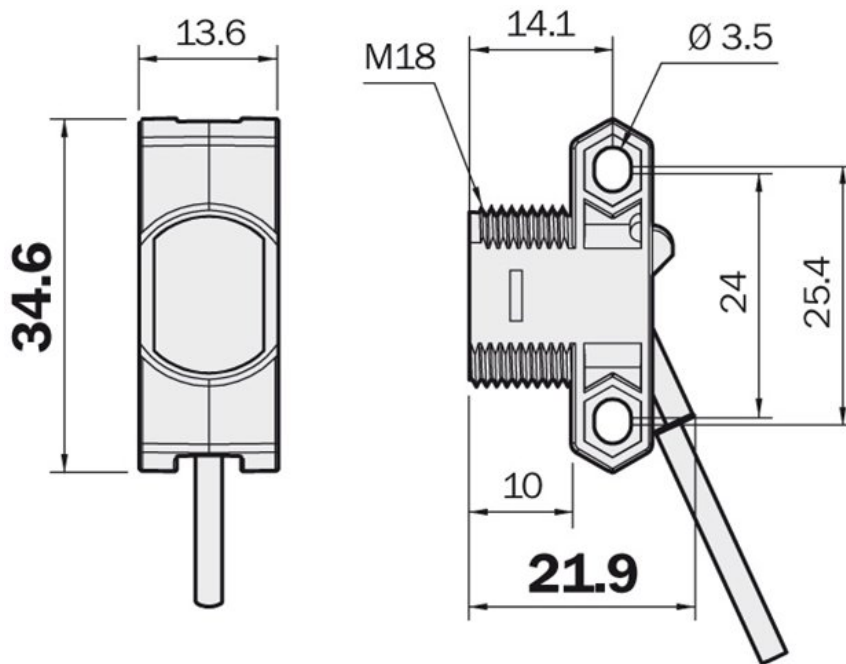
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	< 20 mA ²⁾
Output type:	PNP
Switching mode:	Dark-switching
Output current I _{max} :	50 mA
Switching frequency:	400 Hz ³⁾
Connection type:	Cable, 3-wire, 2 m ⁴⁾

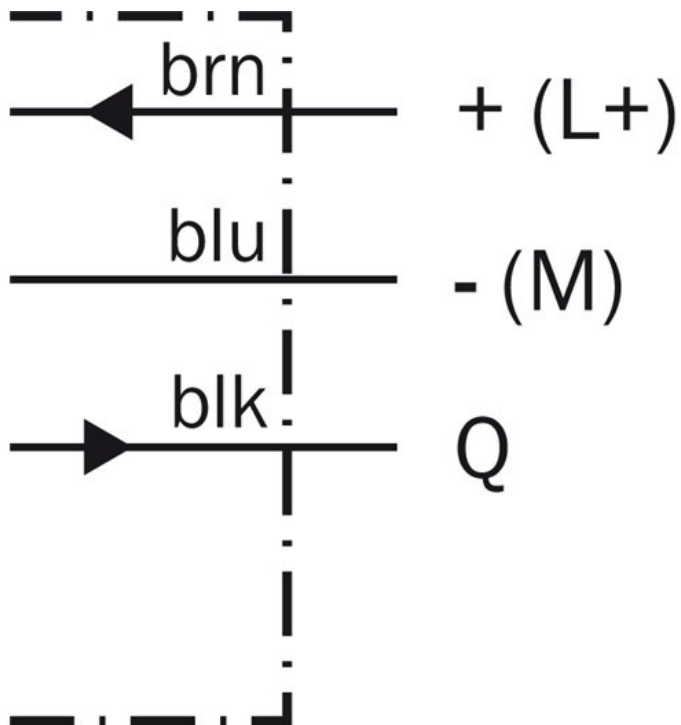
Cable material:	PVC
Conductor cross-section:	0.23 mm ²
Circuit protection:	A, D ^{5) 6)}
Protection class:	III ⁷⁾
Polarisation filter:	✓
Housing material:	Glass fiber reinforced ABS plastic, Plastic
Enclosure rating:	IP 67
Items supplied:	Mounting nut M18
Ambient operating temperature:	-25 °C ... 50 °C
Ambient storage temperature:	-40 °C ... 70 °C

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

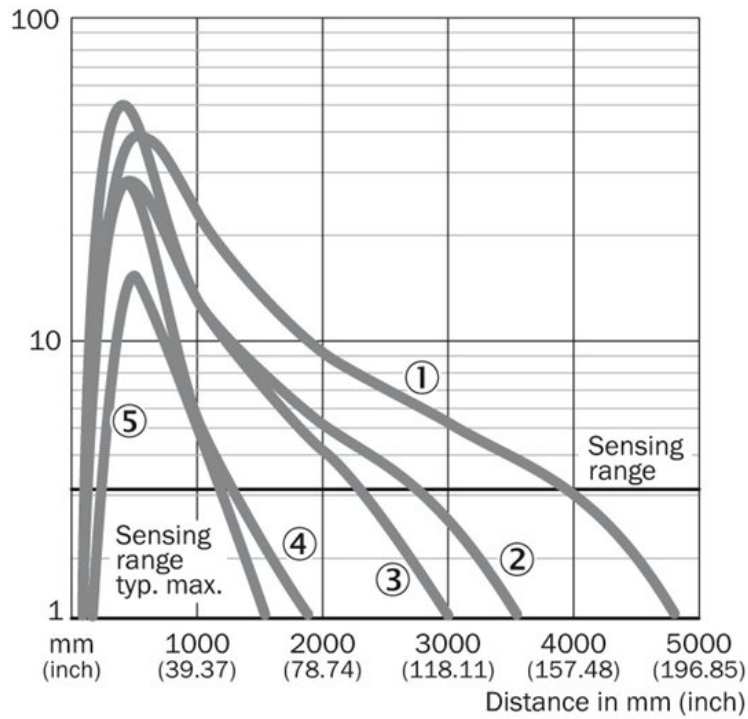
Dimensional drawing



Connection diagram

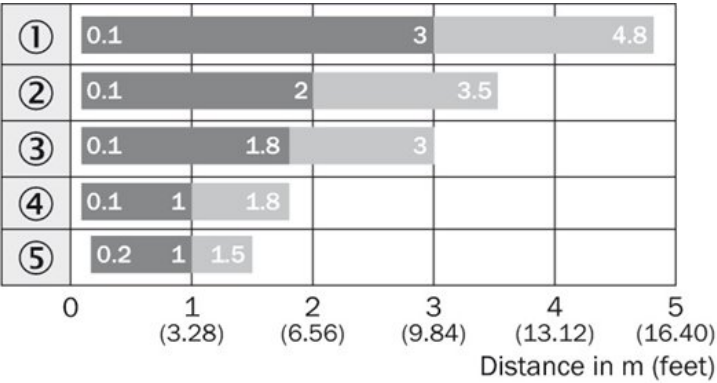


Characteristic curve



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

Sensing range diagram



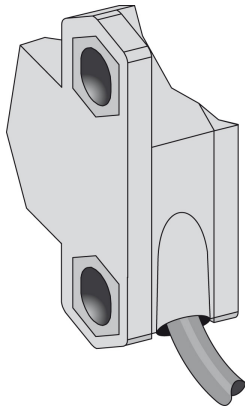
- |1| PL80A
- |2| P250
- |3| PL40A
- |4| PL20A
- |5| Reflective tape REF-Plus

■ 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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