



Fotoprzełączniki
VL180-2, Fotoprzełącznik refleksyjny

VL180-2P42436



Nazwa modelu > [VL180-2P42436](#)

Numer cz ci > [6037496](#)



At a glance

- Lowest-cost M18 housing sensor on the market
- Sensing distance up to 7 m
- Polarizing filter ensures reliable detection of highly-reflective objects
- Bright power and signal LEDs with 360° visibility
- Includes reflector
- High switching frequencies up to 1000 Hz
- Available in a metal housing for applications in harsh environments
- Optical axis selectively axial or radial (90°)

Your benefits

- Lowest-cost M18 cylindrical sensor on the market reduces installation costs
- Bright red sender LED simplifies alignment and saves installation time
- Bright power and signal LEDs with 360° visibility offer quick and simple troubleshooting, reducing maintenance time and costs
- The flat and smooth lens reduces the collection of dust and dirt, ensuring safe operation with less maintenance and fewer costs
- Polarizing filter prevents false readings on reflective surfaces, reducing downtime



Cechy

Maks. strefa działania:	0,05 m ... 7 m ¹⁾
Sensing range:	0,05 m ... 6 m ²⁾
Housing design (light emission):	Cylindrical, straight, straight
Nadajnik światła:	LED ³⁾
Rodzaj światła:	Widzialne światło czerwone
Długość fali:	645 nm
Nastawienie czułości:	Potentiometer, 270°
Długość obudowy:	70,2 mm
Thread diameter (housing):	M18 x 1
Zasada działania czujnika/Sposób detekcji:	Fotoprzekaźnik refleksyjny
Light spot (distance):	400 mm (6 m)
Oś optyczna:	Osiowa

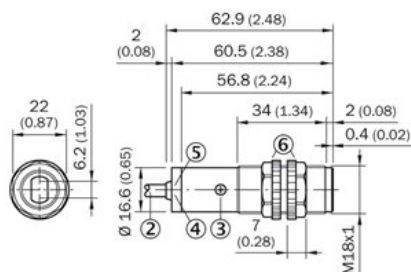
^{1) 2)} PL80A ³⁾ Average service life 100,000 h at Ta = +25 °C

Mechanika/elektronika

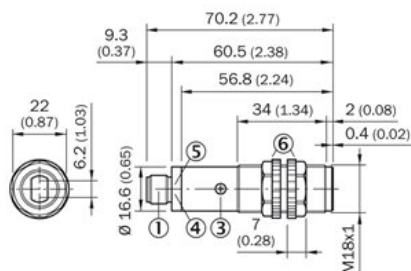
Rodzaj zabezpieczenia:	IP 67
Napięcie zasilania:	10 V DC ... 30 V DC ¹⁾
Tętnienia resztkowe:	$\pm 10\%$ ²⁾
Pobór prądu:	30 ³⁾
Wyjście przełączające:	PNP, przełączanie jasno/ciemno, wybierane, Selectable via L/D control wire, open collector ⁴⁾
Output current I _{max} .:	≤ 100 mA
Czas reakcji:	$\leq 0,5$ ms ⁵⁾
Switching frequency:	1.000 Hz ⁶⁾
Sposób przyłączenia:	Connector M12, 4-pin
Klasa ochronności:	III
Układ zabezpieczenia:::	A B 7) 8) 9) D
Ciężar:	18 g
Tworzywo, obudowa:	PBT and PC
Tworzywo, układ optyczny:	PMMA
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
Filtr polaryzacyjny:	✓
Dostawa:	Fastening nuts (2 x), Reflector P250
Output state-LED:	-
Napięcie sygnału PNP HIGH/LOW:	U _v - 1,8 V/ca. 0 V
Special device:	-
Kąt promieniowania:	Ca. 4,5 °

1) Limit values 2) May not exceed or fall short of V_S 3) Without load 4) Control wire open: dark-switching D.ON 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) A = V_S connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) D = outputs overcurrent and short-circuit protected

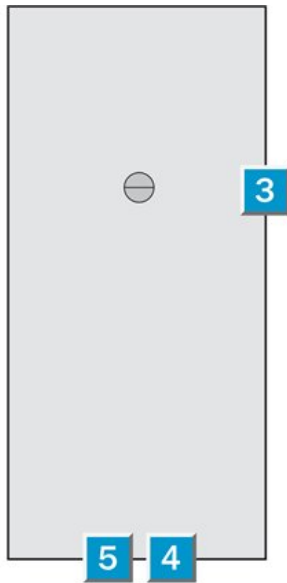
Dimensional drawing



- [1] Plug M12, 4-pin
- [2] Connection cable 2 m
- [3] Sensitivity control (potentiometer, 270°)
- [4] LED indicator orange: switching output active
- [5] LED indicator green: strength indicator
- [6] fastening nuts (2 x); width across 22, PC

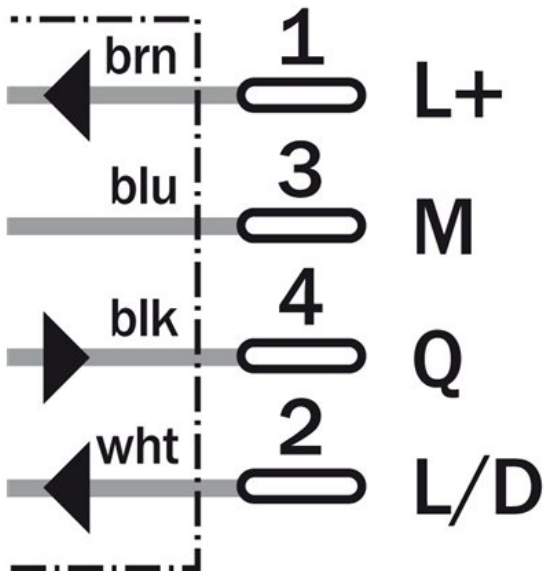


Einstell-Möglichkeiten

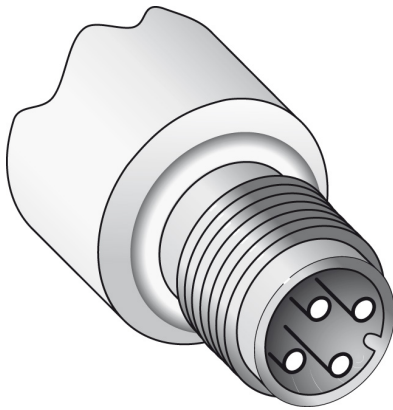


- |3| Sensitivity adjustment 270°
- |4| LED indicator orange: switching output active
- |5| LED indicator green

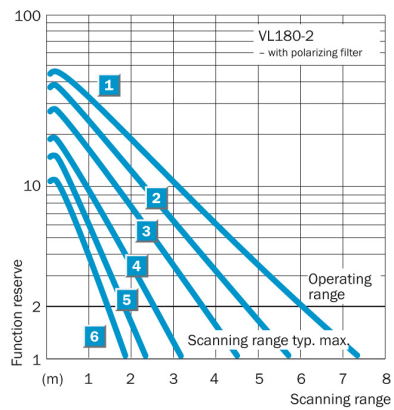
Connection diagram



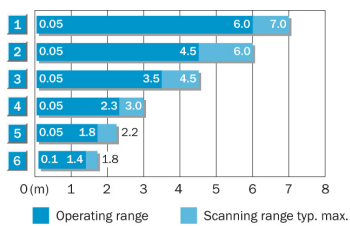
Connection type



Characteristic curve



Sensing range diagram



Reflector type	Operating range
1	PL80A 0.05 ... 6.0 m
2	P250, PL40A, PL50A, C110A 0.05 ... 4.5 m
3	PL30A, PL31A 0.05 ... 3.5 m
4	PL20A 0.05 ... 2.3 m
5	P45 0.05 ... 1.8 m
6	Reflective tape Diamond Grade 0.1 ... 1.4 m (100 x 100 mm ²)

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