



Photoelectric sensors ELF3, Photoelectric proximity sensor, energetic

ET3-P4228



Model Name > [ET3-P4228](#)
Part No. > [1045215](#)



Illustration may differ

At a glance

- Background suppression or energetic variants
- Infrared light or visible red light
- Clear back cover for status indication
- 18 mm front and base mount
- Status and output indicator
- IP 67-rated for harsh environments
- Flush red lens

Your benefits

- A wide range of customizable options reduces material and labor costs
- Flush red lens provides an increased sensing range for a broader range of application possibilities
- IP 67-rated housing offers a long service life that stands up to harsh environments, reducing maintenance time and costs
- Highly visible status/power indicator provides quick and easy troubleshooting from a distance
- M18 front and base mounting ensures quick and easy installation
- Small sensor footprint easily fits into applications with limited space



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	23.8 mm x 43.4 mm x 33.6 mm
Housing design (light emission):	Hybrid
Thread diameter (housing):	M18
Sensing range max.:	1 mm ... 100 mm ¹⁾
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Type of light:	Infrared light
Light source:	LED ³⁾
Light spot (distance):	100 mm
Wave length:	880 nm

^{1) 2)} Object with 90 % reflectance (referred to standard white DIN 5033) ³⁾ Average service life of 100,000 h at T_A = +25 °C

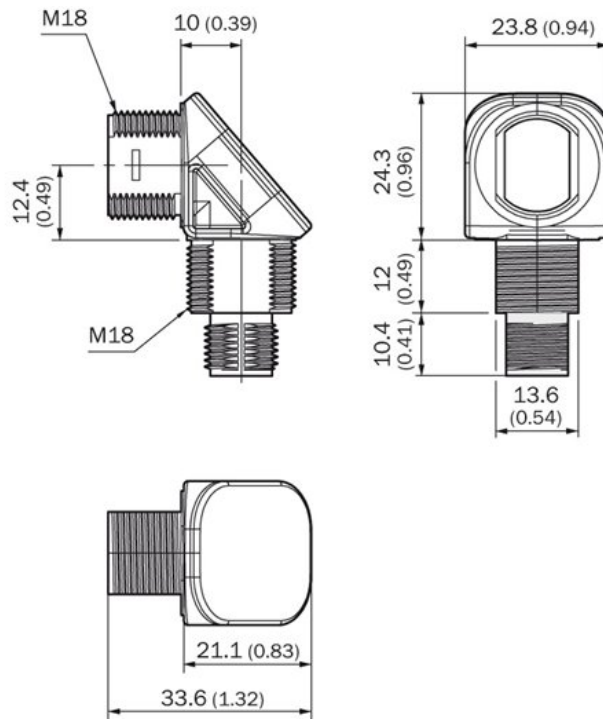
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾

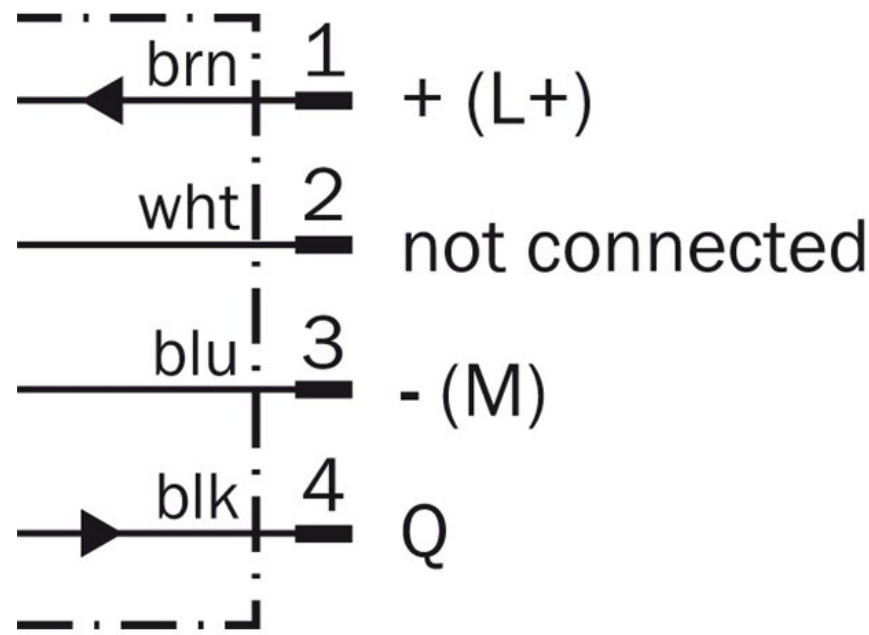
Power consumption:	< 20 mA ³⁾
Output type:	PNP, Light-switching
Output current I _{max} :	50 mA
Switching frequency:	200 Hz ⁴⁾
Connection type:	Connector M12, 4-pin
Circuit protection:	A, D ^{5) 6)}
Protection class:	III ⁷⁾
Weight:	0.014 kg, 0.03 lbs
Housing material:	Glass fiber reinforced ABS plastic
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) May not exceed or fall short of V_S tolerances 3) Without load 4) With light/dark ratio 1:1 5) A = V_S connections reverse-polarity protected 6) D = outputs overcurrent and short-circuit protected 7) Reference voltage 50 V DC

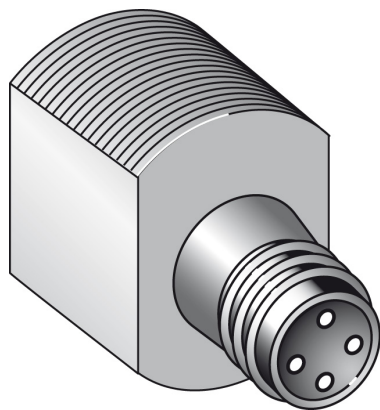
Dimensional drawing



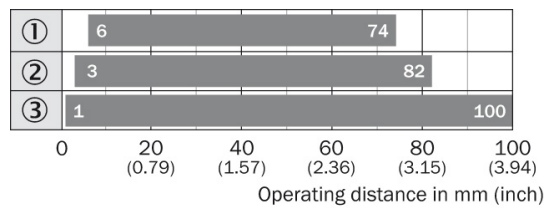
Connection diagram



Connection type



Sensing range diagram



- ① Scanning distance on black, 6 % remission
- ② Scanning distance on grey, 18 % remission
- ③ Scanning distance on white, 90 % remission

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