



Photoelectric sensors  
ELF3, Photoelectric proximity sensor, energetic

ET3-P5228



**Model Name** > [ET3-P5228](#)  
**Part No.** > [1045207](#)



*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.:	5 mm ... 155 mm <sup>1)</sup>
Sensing range:	5 mm ... 155 mm <sup>2)</sup>
Type of light:	Infrared light
Light source:	LED <sup>3)</sup>
Light spot size (distance):	150 mm

<sup>1) 2)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033) <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

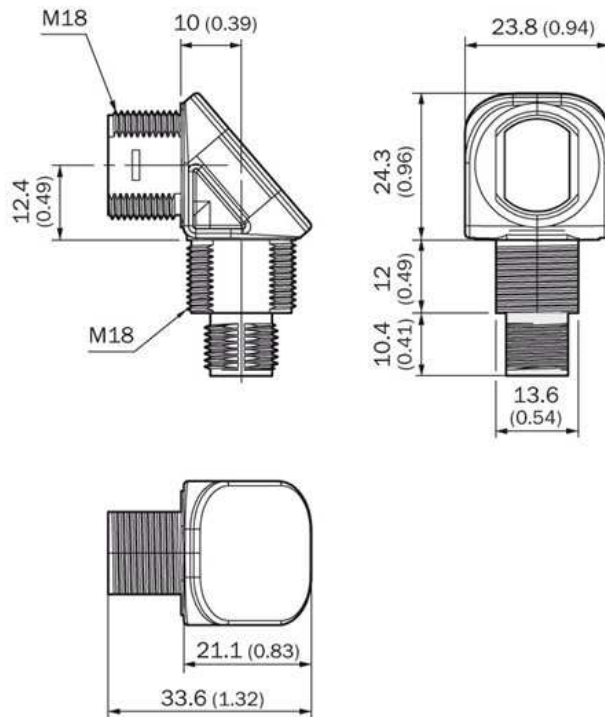
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple:	< 5 Vpp <sup>2)</sup>
Power consumption:	< 20 mA <sup>3)</sup>

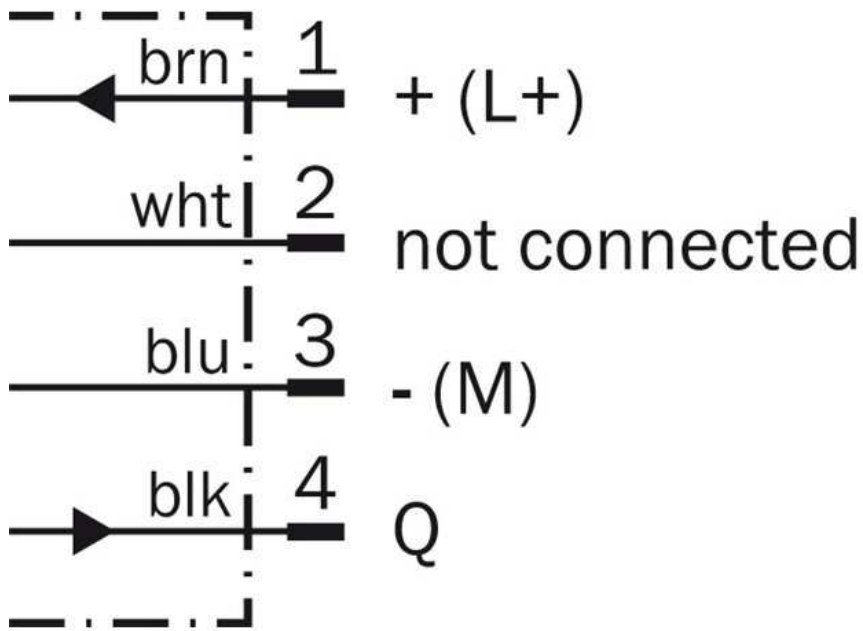
Output type:	PNP
Switching mode:	Light switching
Output current I <sub>max</sub> :	50 mA
Switching frequency:	200 Hz <sup>4)</sup>
Connection type:	Connector M12, 4-pin
Circuit protection:	A, D <sup>5) 6)</sup>
Protection class:	III <sup>7)</sup>
Weight:	0.014 kg, 0.03 lbs
Front screen heating:	-
Enclosure rating:	IP 67
Items supplied:	Mounting nut M18
Special feature:	Focused optics
Ambient operating temperature:	-25 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +70 °C
Housing material:	Glass fiber reinforced ABS plastic, Plastic

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

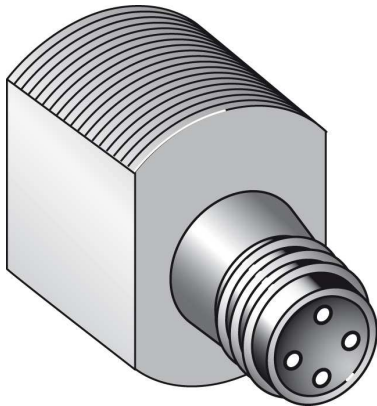
### Dimensional drawing



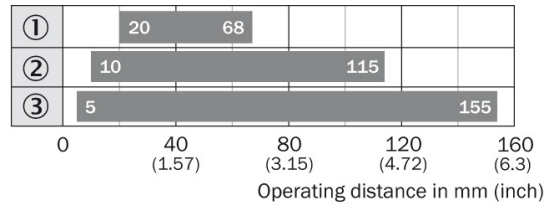
### Connection diagram



### 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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