



Photoelectric sensors  
V180, Photoelectric proximity sensor, energetic

VT180-P440

**Model Name** > [VT180-P440](#)  
**Part No.** > [6008793](#)

**At a glance**

- Sensing distance up to 110 mm or 400 mm
- Compact M18 metal housing
- M12 cable or 2 m cable
- Light/dark switching via control cable
- 90° deflector head accessory

**Your benefits**

- Compact M18 housing saves space on the machine
- Compatible with many competitor models, making it easy to install and commission
- Clearly visible LED indicators reduce setup time and simplify troubleshooting

**The product has been discontinued. Please follow the "replacement product" link for information about alternative products.**



**Features**

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Housing design (light emission):	Cylindrical, straight
Housing length:	69 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	0 mm ... 450 mm <sup>1)</sup>
Sensing range:	0 mm ... 400 mm <sup>2)</sup>
Type of light:	Infrared light
Light source:	LED <sup>3)</sup>
Wave length:	920 nm
Adjustment:	Potentiometer, 270°
Light spot size (distance):	30 mm (400 mm)

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> With right-angle adapter, the sensing range is reduced from 400 mm to 280 mm <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>
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Ripple:	± 5 Vpp
Power consumption:	30 <sup>2)</sup>
Output type:	PNP, open collector <sup>3)</sup>
Switching mode:	Light/dark-switching <sup>4)</sup>
Switching mode selector:	Selectable via L/D control wire
Signal voltage PNP HIGH/LOW:	Approx. VS - 1.0 V / 0 V
Output current I <sub>max</sub> :	≤ 100 mA
Response time:	≤ 1.5 ms <sup>5)</sup>
Switching frequency:	333 Hz <sup>6)</sup>
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	65 g
Special device:	-
Housing material:	Nickel-plated brass, PBT/PC, Metal
Optics material:	PMMA
Enclosure rating:	IP 66
Items supplied:	Fastening nuts (2 x)
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File No.:	NRNT2.E128350 & NRNT8.E128350

<sup>1)</sup> Limit values    <sup>2)</sup> Without load    <sup>3) 4)</sup> Control wire open: dark-switching D.ON    <sup>5)</sup> Signal transit time with resistive load    <sup>6)</sup> With light/dark ratio 1:1    <sup>7)</sup> A = V<sub>S</sub> connections  
reverse-polarity protected    <sup>8)</sup> C = interference suppression    <sup>9)</sup> D = outputs overcurrent and short-circuit protected

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