



Photoelectric sensors
V180, Photoelectric proximity sensor, energetic

VT180-P112

Model Name > [VT180-P112](#)
Part No. > [6008787](#)

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:	63.3 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	0 mm ... 130 mm ¹⁾
Sensing range:	0 mm ... 110 mm ²⁾
Type of light:	Infrared light
Light source:	LED ³⁾
Wave length:	920 nm
Adjustment:	Potentiometer, 270°
Light spot size (distance):	65 mm (110 mm)

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ With right-angle adapter, the sensing range is reduced from 110 mm to 100 mm 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
Power consumption:	30 ²⁾
Output type:	PNP, open collector ³⁾
Switching mode:	Light/dark-switching ⁴⁾
Switching mode selector:	Selectable via L/D control wire
Signal voltage PNP HIGH/LOW:	Approx. VS - 1.0 V / 0 V
Output current I _{max} :	≤ 100 mA
Response time:	≤ 1.5 ms ⁵⁾
Switching frequency:	333 Hz ⁶⁾
Connection type:	Cable, 4-wire, 2 m ⁷⁾
Cable material:	PVC
Conductor cross-section:	0.18 mm ²
Cable diameter:	3.8 mm
Circuit protection:::	A, C, D ^{8) 9) 10)}
Protection class:	III
Weight:	125 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

1) Limit values 2) Without load 3) 4) Control wire open: dark-switching D.ON 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) Do not bend below 0 °C 8) A = V_S connections reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected

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