



Photoelectric sensors V18, Photoelectric retro-reflective sensor

VL18-3N3140



Model Name > [VL18-3N3140](#)
Part No. > [6013518](#)



At a glance

- Cylindrical M18 housing
- Sensing distance up to 3.7 m
- 3- or 4-wire
- Straight or right-angle housing
- Metal or plastic housing

Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- Compact, space-saving design easily fits in tight application spaces
- Polarizing filter prevents false readings on reflective surfaces, reducing downtime



Features

Sensing range max.:	0.05 m ... 3.7 m ¹⁾
Sensing range:	0.05 m ... 3 m ²⁾
Housing design (light emission):	Cylindrical, straight, straight
Light source:	LED ³⁾
Type of light:	Visible red light
Housing length:	78 mm
Thread diameter (housing):	M18 x 1
Sensor/detection principle:	Photoelectric retro-reflective sensor
Light spot (distance):	150 mm (3 m)
Optical axis:	Axial

1) 2) C110A³⁾ Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

Enclosure rating:	IP 67
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	≤ 10 % ²⁾
Power consumption:	≤ 30 mA ³⁾
Switching output:	NPN, Dark-switching, open collector
Output current I _{max} :	100 mA
Response time:	≤ 2 ms ⁴⁾
Switching frequency:	250 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Protection class:	III

Circuit protection::::

A
B
C 6) 7) 8) 9)
D

Weight:

120 g

Housing material:

Nickel-plated brass

Optics material:

PMMA

Ambient operating temperature:

-25 °C ... 70 °C

Polarisation filter:

✓

Special device:

-

Angle of dispersion:

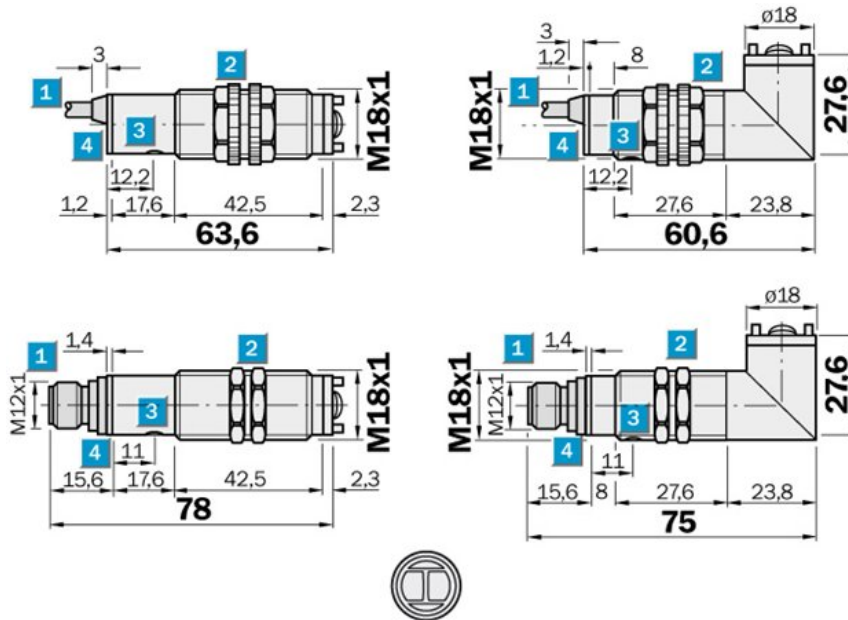
2.8 °

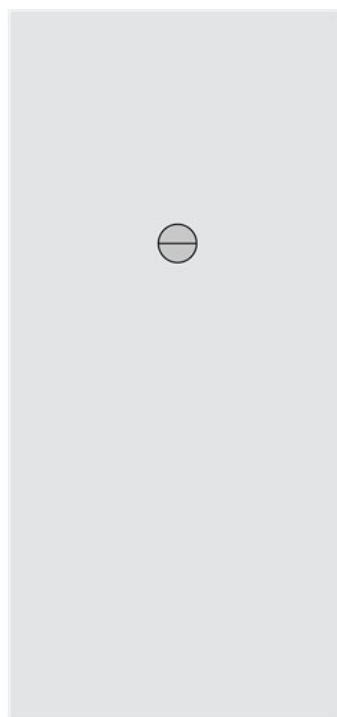
UL File-No.:

UL No. NMFT2.E175606

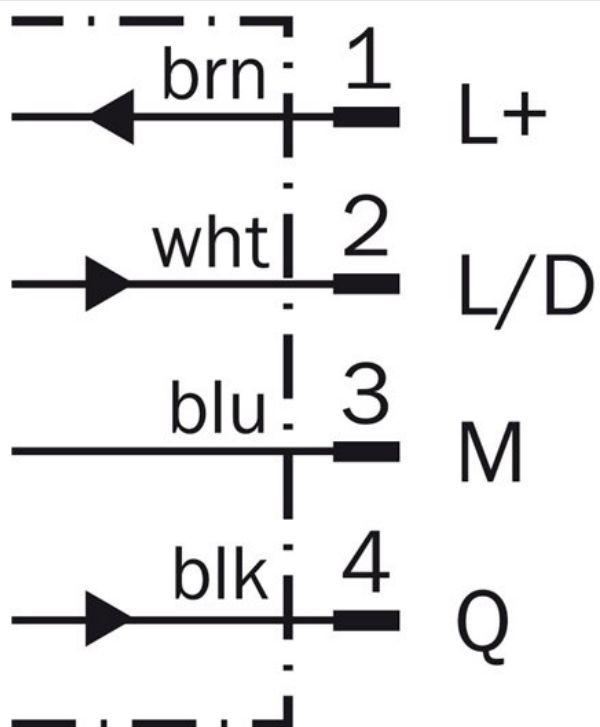
1) Limit values 2) May not exceed or fall short of V_S 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) $A = V_S$ connections reverse-polarity protected 7) B = inputs and output reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent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

Dimensional drawing

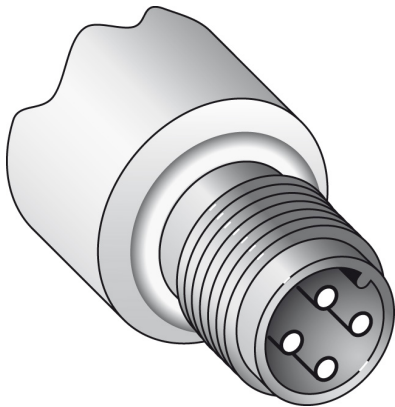




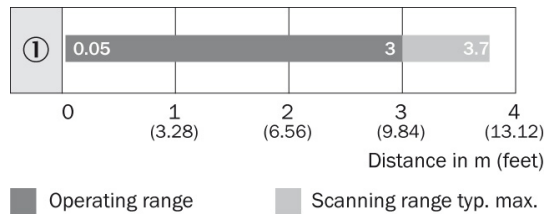
Connection diagram



Connection type

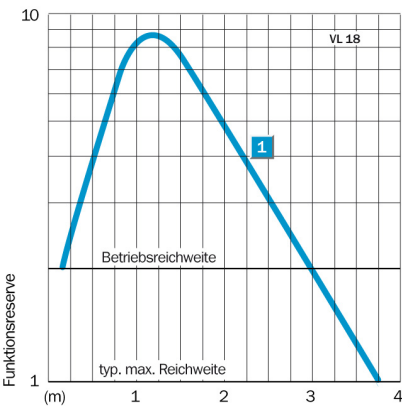


Sensing range diagram



① Reflector type C110

Characteristic curve



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