ONLINE DATA SHEET
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Photoelectric sensors
V18, Photoelectric retro-reflective sensor

VL18-3P3140

SICK
Sensor Intelligence.

Photoelectric sensors
V18, Photoelectric retro-reflective sensor

Model Name > VL18-3P3140
Part No. > 6013527

Illustration may differ

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

Sensor/detection principle:	Photoelectric retro-reflective sensor
Housing design (light emission):	Cylindrical, straight, straight
Housing length:	78 mm
Thread diameter (housing):	M18 x 1
Optical axis:	axial
Sensing range max.:	0.05 m ... 3.7 m [1]
Sensing range:	0.05 m ... 3 m [2]
Type of light:	Visible red light
Light source:	LED [3]
Light spot (distance):	150 mm (3 m)
Angle of dispersion:	2.8 °

[1] [2] C110A [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:	≤ 10 % [2]
Power consumption:	≤ 30 mA [3]
Output type:	PNP, Dark-switching, open collector
Output current Imax.:	100 mA
Response time:	≤ 2 ms [4]
Switching frequency:	250 Hz [5]
Connection type:	Connector M12, 4-pin
Circuit protection::::	A, B, C, D [6] [7] [8] [9]

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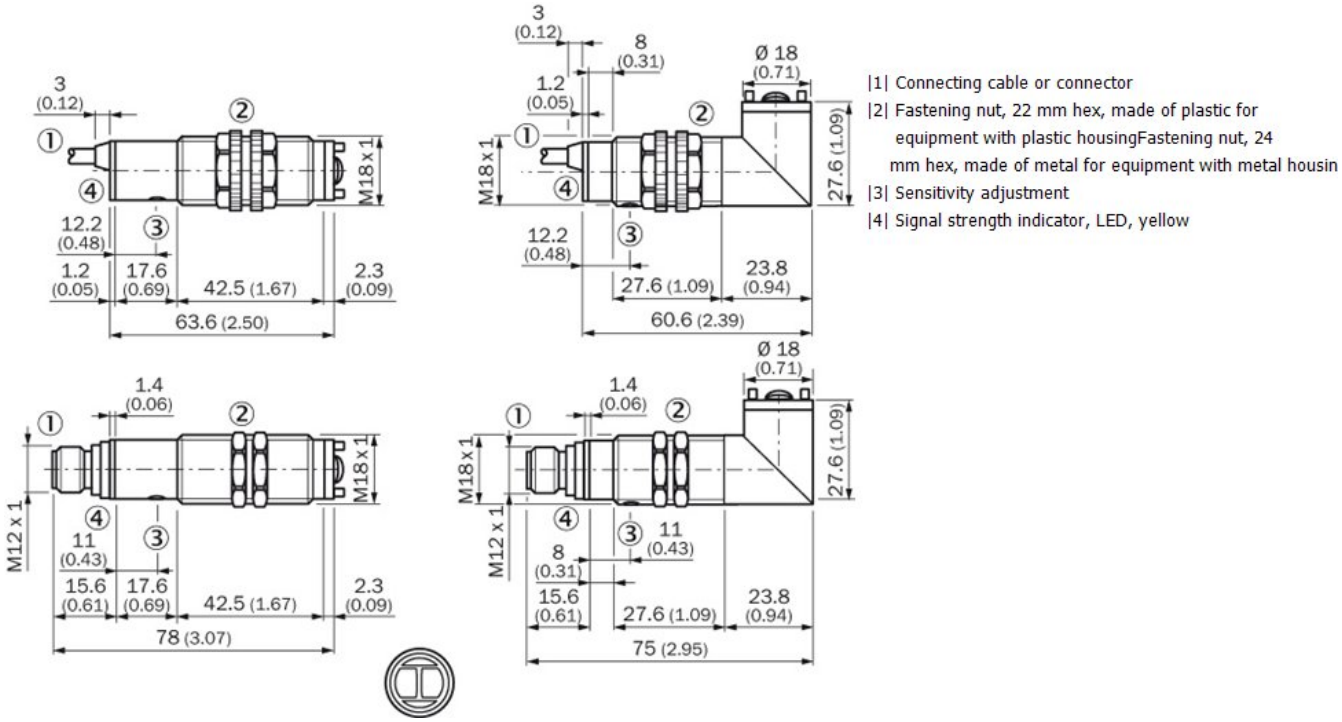
Protection class:	III
Weight:	120 g
Polarisation filter:	✓
Housing material:	Nickel-plated brass
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... 70 °C
UL File-No.:	UL No. NMFT2.E175606

[1] Limit values [2] May not exceed or fall short of V_S tolerances [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



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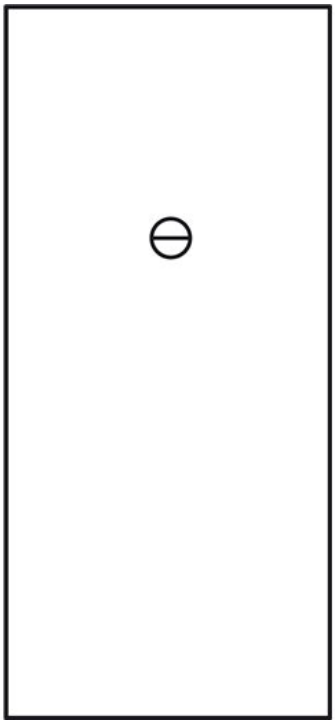
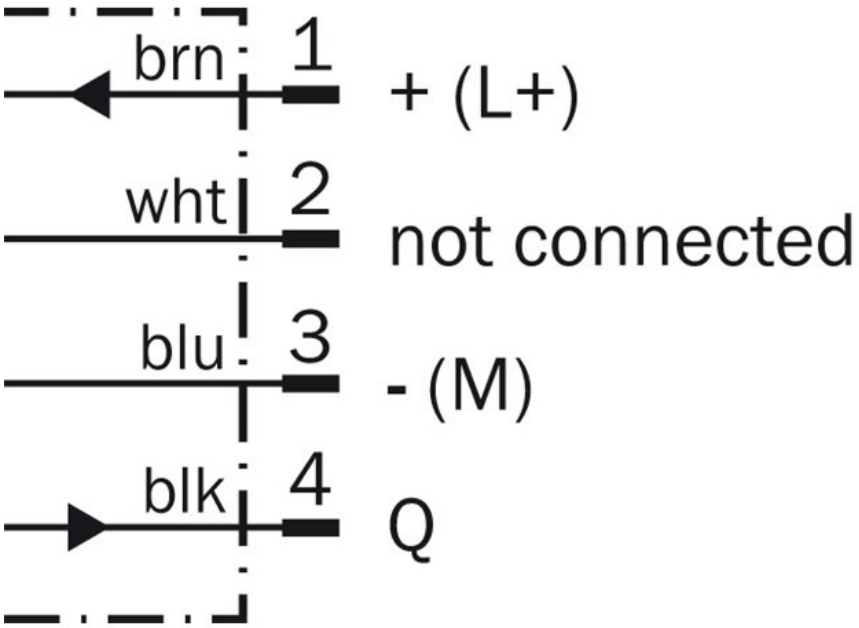
Adjustments possible



Connection diagram



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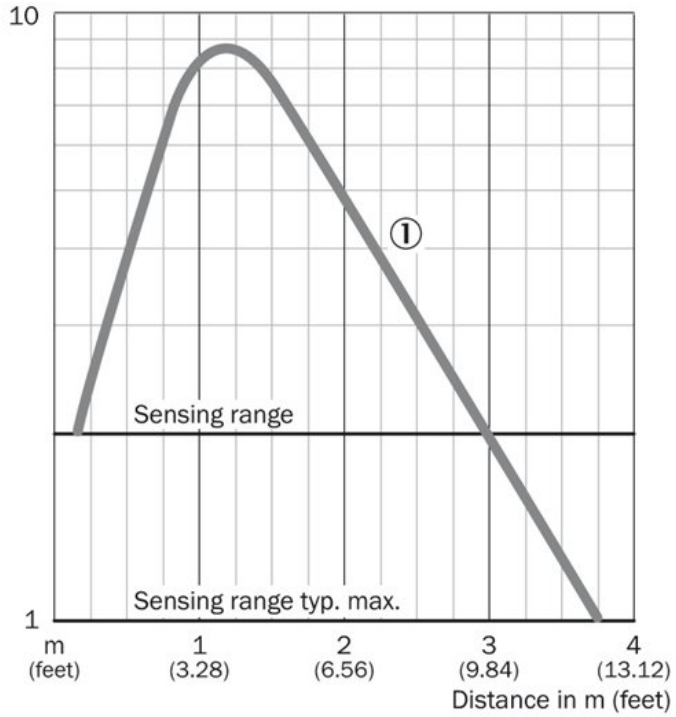
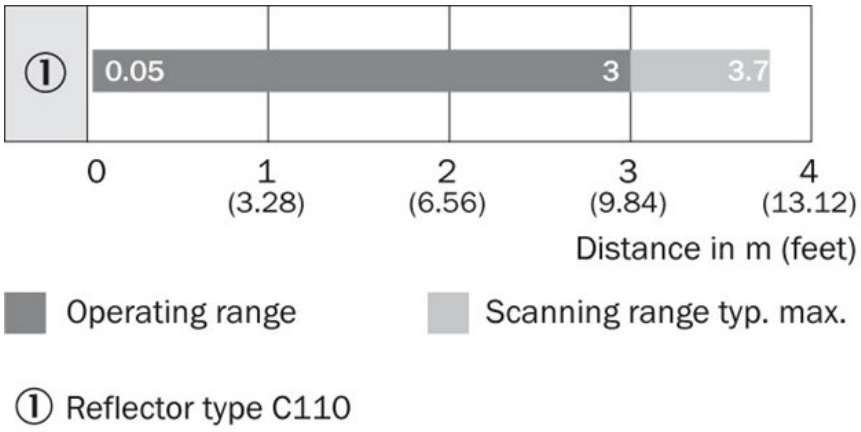
Characteristic curve



Sensing range diagram



① Reflector type C110

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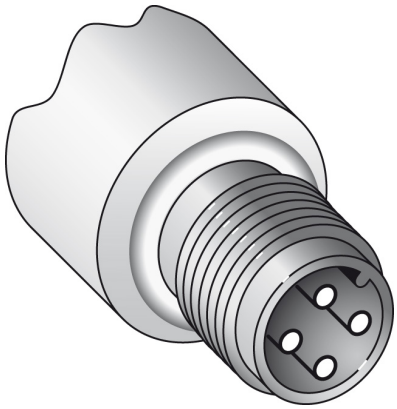
Connection type



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