Online data sheet



VTF18-3F1840

V18

PRODUCT PORTFOLIO

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
VTF18-3F1840	6012918

Other models and accessories ➜ www.sick.com/V18

Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Background blanking
Housing design (light emission)	Cylindrical
Housing length	75 mm
Thread diameter (housing)	M18 x 1
Optical axis	Radial
Sensing range max.	3 mm ... 100 mm [1]
Sensing range	3 mm ... 90 mm
Focus	[2]
Type of light	Infrared light
Light source	LED [3]
Light spot size (distance)	Ø 3 mm (50 mm)
Adjustment	None

[1] Object with 90 % reflectance (referred to standard white, DIN 5033).
[2] Focused, focus at 50 mm.
[3] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

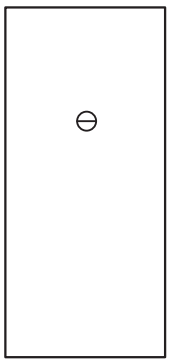
Supply voltage	10 V DC ... 30 V DC [1]
Ripple	≤ 10 % [2]
Power consumption	≤ 30 mA [3]
Switching output	PNP
Switching mode	Light switching
Output current $I_{max.}$	100 mA
Response time	≤ 2 ms [4]
Switching frequency	250 Hz [5]
Connection type	Male connector M12, 4-pin
Circuit protection	A [6] B [7] C [8] D [9]
Protection class	III
Weight	100 g
Housing material	Plastic, PBT/PC
Optics material	Plastic, PMMA
Enclosure rating	IP67
Special feature	Focused optics
Ambient operating temperature	–25 °C ... +70 °C
UL File No.	NMFT2.E175606

[1] Limit values.
[2] May not exceed or fall below U_V 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.

Classifications

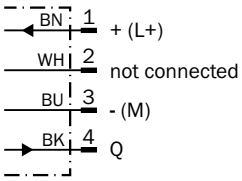
ECl@ss 5.0	27270904
ECl@ss 5.1.4	27270904
ECl@ss 6.0	27270904
ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904
ECl@ss 9.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719
UNSPSC 16.0901	39121528

Adjustments possible

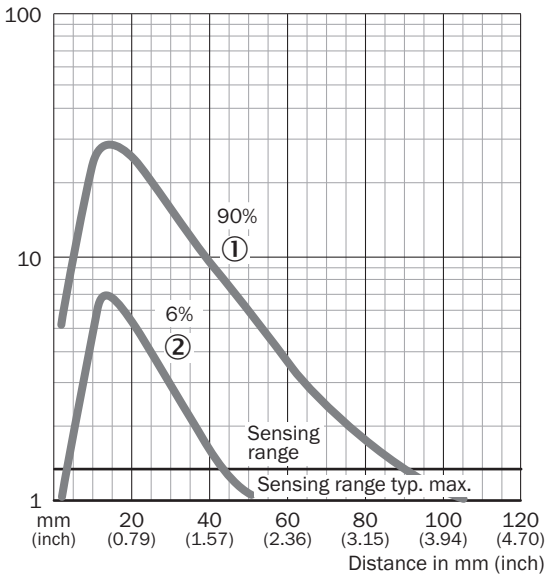


Connection diagram

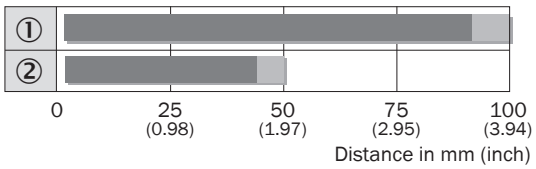
cd-066



Characteristic curve



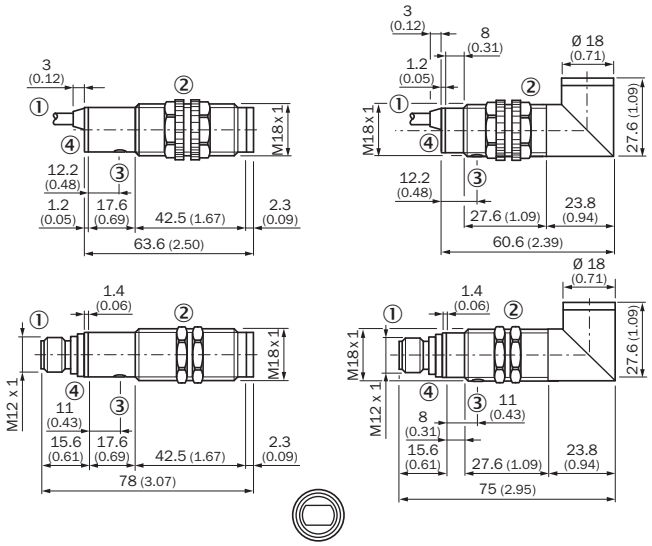
Sensing range diagram



Operating distance Scanning distance typ. max.

①	Scanning range on white, 90 % remission
②	Scanning range on black, 6 % remission

Dimensional drawing (Dimensions in mm (inch))



① Connecting cable or connector
② Fastening nut, 22 mm hex, made of plastic for equipment with plastic housingFastening nut, 24 mm hex, made of metal for equipment with metal housing
③ Sensitivity control
④ Signal strength indicator, LED, yellow

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

SICK:

1040755 2095791 GL6-P1111 SBO-02F12-SM1 2095780 EN2-2EX1 / 6041096 IME12-08NPSZW2K
PLV14-A 1054695 LFP2000-A4NMB 1213222 YF8U14-020UA3XLEAX 1041007 2109288 GSE6-P1212
L41E-33MA2A S30A-XXXXBA 2106256 2107717 C4C-SA06030A10000 DFS60B-BHPK10000 WT150-P162
1040855 1068252 GL6-P6211 1040876 C4C-EA09030A10000 GL6-N1112 IME12-04BPSZW2S 1016857