Product data sheet

ZTB18-4PZ2B2D04

Z18 Simple Sense

HYBRID PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
ZTB18-4PZ2B2D04	1109590

Included in delivery: BEF-MU-M18*1 (1)

Other models and accessories ➜ www.sick.com/Z18_Simple_Sense

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	13.6 mm x 42.9 mm x 33.3 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Mounting system type	M18, head/M18, base
Housing color	Blue
Sensing range max.	5 mm ... 100 mm [1]
Sensing range	5 mm ... 100 mm [1]
Type of light	Visible red light
Light source	PinPoint LED
Light spot size (distance)	Ø 8 mm (100 mm)
Wave length	625 nm

[1] Object with 90% remission (based on standard white, DIN 5033).

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	≤ 15 mA [1]
Switching output	PNP
Switching mode	Light switching

[1] Without load.
[2] Signal transit time with resistive load.
[3] With light/dark ratio 1:1.
[4] A = V_S connections reverse-polarity protected.
[5] B = inputs and output reverse-polarity protected.
[6] D = outputs overcurrent and short-circuit protected.

Switching output detail	
Switching output Q1	PNP, Light switching
Switching output Q2	Not connected
Output current $I_{max.}$	100 mA
Response time	≤ 1 ms [2]
Switching frequency	500 kHz [3]
Connection type	Cable with connector M8, 3-pin, 150 mm
Cable material	PVC
Conductor cross section	0.13 mm²
Circuit protection	A [4] B [5] D [6]
Protection class	III
Weight	4.54 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–40 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C
UL File No.	E189383

[1] Without load.
[2] Signal transit time with resistive load.
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[4] A = V_S connections reverse-polarity protected.
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Classifications

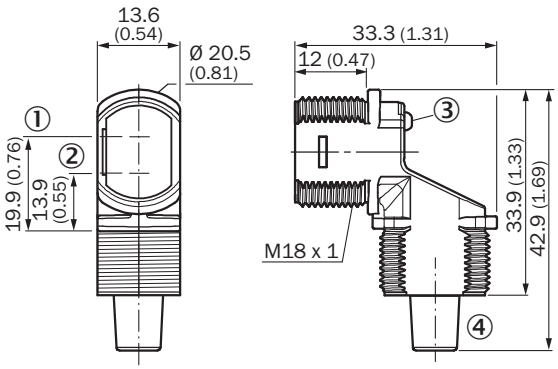
eCl@ss 5.0	27270904
eCl@ss 5.1.4	27270904
eCl@ss 6.0	27270904
eCl@ss 6.2	27270904
eCl@ss 7.0	27270904
eCl@ss 8.0	27270904
eCl@ss 8.1	27270904
eCl@ss 9.0	27270904
eCl@ss 10.0	27270904
eCl@ss 11.0	27270904
eCl@ss 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719

UNSPSC 16.0901	39121528

Connection/Pin assignment

Connection type	Cable with connector M8, 3-pin, 150 mm
Connection type Detail	
Conductor cross section	0.13 mm²
Cable material	PVC
Pin assignment	
BN 1	+ (L+)
WH 2	Not connected
BU 3	- (M)
BK 4	Q_1

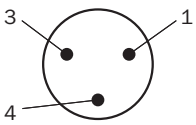
Dimensional drawing (Dimensions in mm (inch))



① Optical axis, sender
② Optical axis, receiver
③ LED status indicator
④ Connection

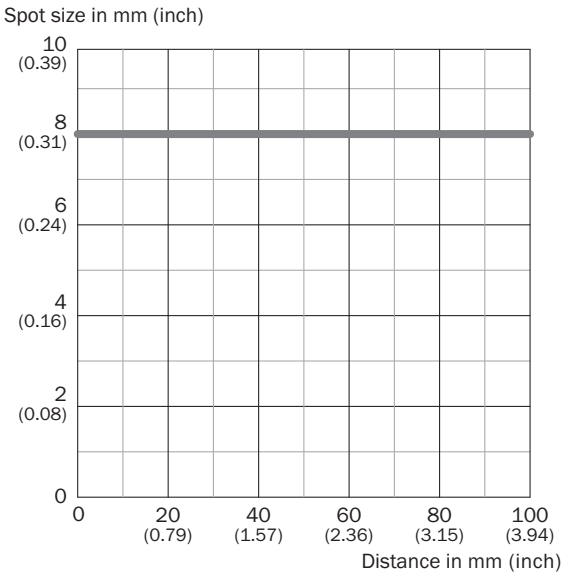
Connection type

Connection type. see table: Connection/PIN assignment



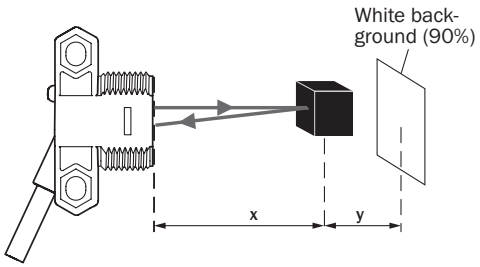
Connector M8, 3-pin

Light spot size



Functions

Sensing range on black, 6% remission factor



ZTB18-xxxxx**D02**: x = 47 mm / y = 4 mm
ZTB18-xxxxx**D04**: x = 93 mm / y = 8 mm
ZTB18-xxxxx**D06**: x = 139 mm / y = 12 mm

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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:

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