



ET3-N4215

ELF3

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
ET3-N4215	1045190

Other models and accessories → www.sick.com/ELF3

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	23.8 mm x 45.4 mm x 33.6 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Sensing range max.	1 mm ... 100 mm ¹⁾
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Type of light	Infrared light
Light source	LED ²⁾
Light spot size (distance)	20 mm x 20 mm (100 mm)
Wave length	880 nm
Adjustment	None

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

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	20 mA ³⁾

¹⁾ Limit values.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Do not bend below 0 °C.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ D = outputs overcurrent and short-circuit protected.

⁸⁾ Reference voltage: 50 V DC.

Switching output	NPN
Switching mode	Light switching
Output current I_{max.}	≤ 50 mA
Switching frequency	200 Hz ⁴⁾
Connection type	Cable, 3-wire, 2 m ⁵⁾
Cable material	PVC
Conductor cross section	0.23 mm ²
Circuit protection	A ⁶⁾ D ⁷⁾
Protection class	III ⁸⁾
Weight	0.036 kg, 0.08 lbs
Housing material	Plastic, Glass fiber reinforced ABS plastic
Enclosure rating	IP67
Items supplied	Mounting nut M18
Ambient operating temperature	-25 °C ... +50 °C
Ambient temperature, storage	-40 °C ... +70 °C

1) Limit values.

2) May not exceed or fall below U_y tolerances.

3) Without load.

4) With light/dark ratio 1:1.

5) Do not bend below 0 °C.

6) A = V_S connections reverse-polarity protected.

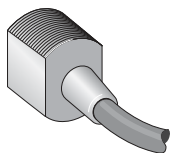
7) D = outputs overcurrent and short-circuit protected.

8) Reference voltage: 50 V DC.

Classifications

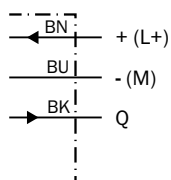
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eCl@ss 8.1	27270903
eCl@ss 9.0	27270903
eCl@ss 10.0	27270904
eCl@ss 11.0	27270904
eCl@ss 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection type



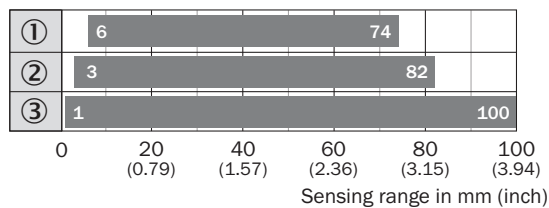
Connection diagram

Cd-043



Sensing range diagram

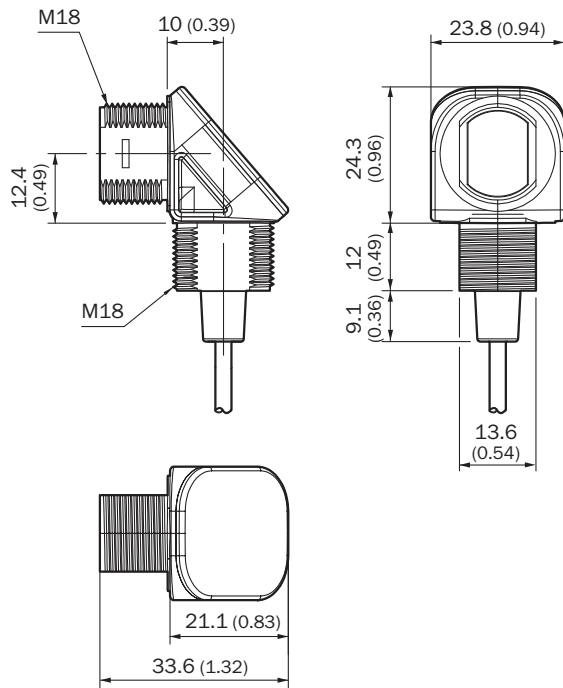
ET3, ET4, 100 mm



- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission



Dimensional drawing (Dimensions in mm (inch))

ET3, EL3, cable



Recommended accessories

Other models and accessories → www.sick.com/ELF3

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for M18 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M18	5308446
Plug connectors and cables			
	Head A: male connector, M8, 3-pin, straight Cable: unshielded	STE-0803-G	6037322

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:

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