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DATA SHEET

IMA18-08NE1ZW5S

IMA
Inductive proximity sensors

SICK
Sensor Intelligence



Illustration may differ

INDUCTIVE PROXIMITY SENSORS

IMA18-08NE1ZW5S

ORDERING INFORMATION

Type	part no.
IMA18-08NE1ZW5S	1112286

Further device versions and accessories at www.sick.com/IMA

DETAILED TECHNICAL DATA

FEATURES

Housing	Metric
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	0 mm ... 8 mm
Installation type	Non-flush
Connection type	Cable, 4-wire, 5 m
Output function	Analog
Repeatability (T_a not constant)	0.3 mm [1) 2) 3)]
Repeatability (T_a constant)	± 0.1 mm
Enclosure rating	IP67 [4)]
Special features	Analog output
Items supplied	Mounting nut, brass, chromium-plated (2x)

1) As per IEC 60947-5-2.

2) Ub = DC 20 V ... 30 V.

3) TA = 23 °C ± 5 °C.

4) According to EN 60529: 2000-09.

MECHANICS/ELECTRONICS

Supply voltage	15 V DC ... 30 V DC

1) Of V_S.

2) Without load.

3) –3 dB if S_n = 4 mm.

4) QA1 loaded, QA2 unloaded.

5) QA1 loaded, QA2 loaded: see temperature reduction.

Ripple	≤ 20 % [1]
Time delay before availability	≤ 30 ms
Temperature drift (of S_r)	≤ 10 %
No load current	≤ 12 mA [2]
Max. load resistance on Q_{A1}	≥ 2 kΩ
Max. load resistance on Q_{A2}	400 Ω Ub = 15 V
Output voltage Q_{A1}	s = 0 mm: 0 V –0/+0,6 V (23 °C) s = 4 mm: 5,6 V +/-0,6 V (23 °C) s = 8 mm: 10 V +/-0,6 V (23 °C)
Output current Q_{A2}	s = 0 mm: 4 mA +/-0.8 mA (23 °C) s = 8 mm: 20 mA +/-0,8 mA (23 °C)
Output voltage	0 V ... 10 V
Output current	4 mA ... 20 mA
Bandwidth	500 Hz [3]
Cable material	PVC
Short-circuit protection	✓
Ambient operating temperature	–25 °C ... +70 °C [4] [5]
Housing material	Brass, chromium-plated
Sensing face material	Plastic
Housing length	67 mm
Thread length	42 mm

[1] Of V_S.

[2] Without load.

[3] –3 dB if S_n = 4 mm.

[4] QA1 loaded, QA2 unloaded.

[5] QA1 loaded, QA2 loaded: see temperature reduction.

SAFETY-RELATED PARAMETERS

$MTTF_D$	1,149 years
DC_{avg}	0 %
T_M (mission time)	20 years

INSTALLATION NOTE

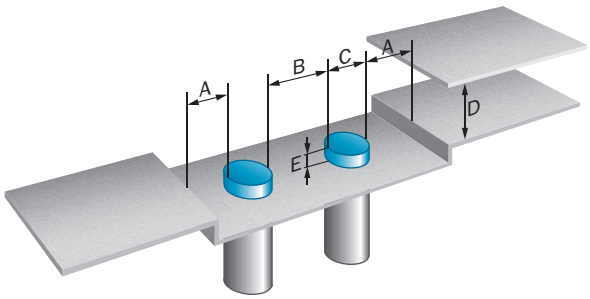
Remark	Associated graphic see "Installation"
A	18 mm
B	36 mm
C	18 mm
D	24 mm
E	16 mm
F	64 mm

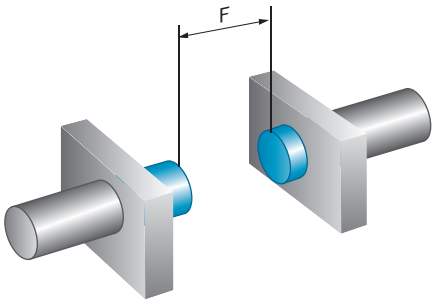
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓

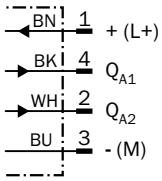
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

INSTALLATION NOTE NON-FLUSH INSTALLATION

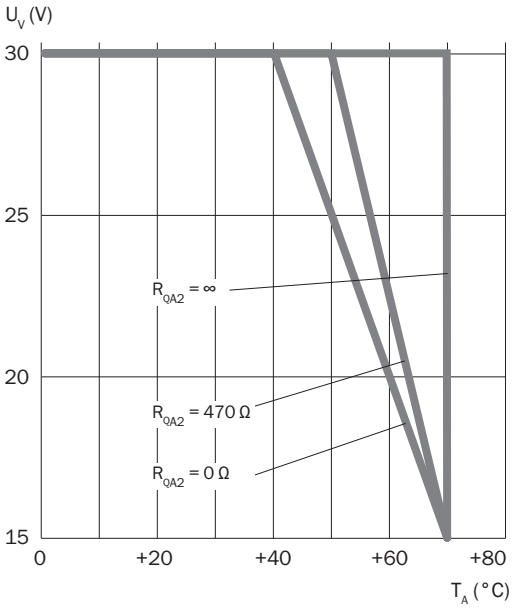




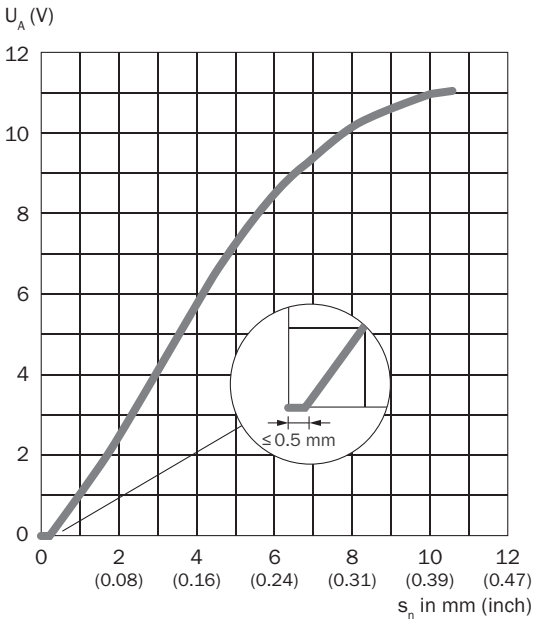
CONNECTION DIAGRAM CD-022



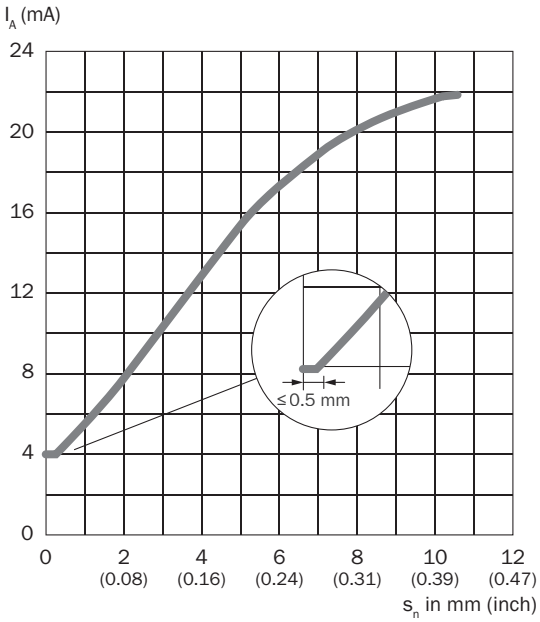
TEMPERATURE DERATING TEMPERATURE DERATING



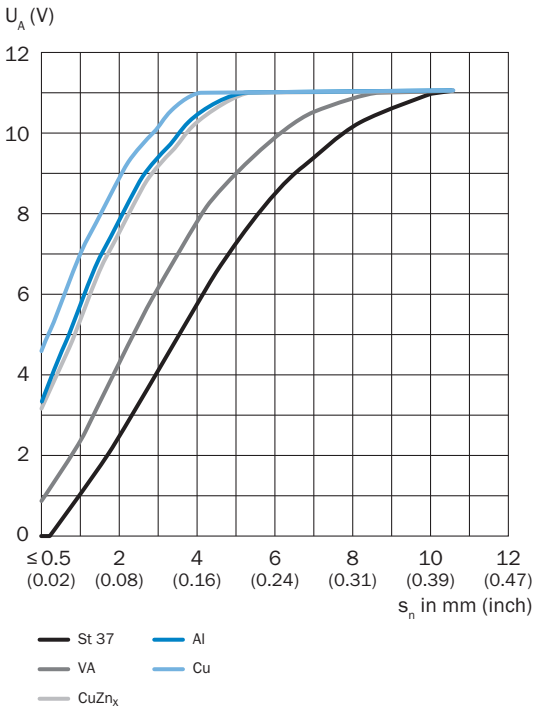
RESPONSE DIAGRAM OUTPUT VOLTAGE



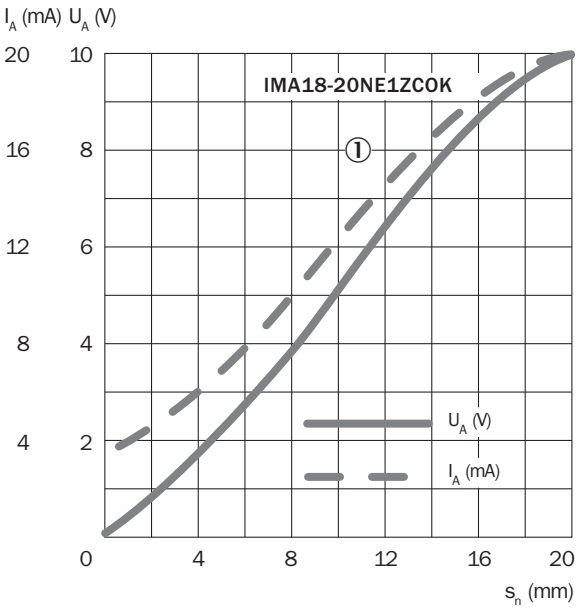
RESPONSE DIAGRAM OUTPUT CURRENT



RESPONSE DIAGRAM REDUCTION FACTORS

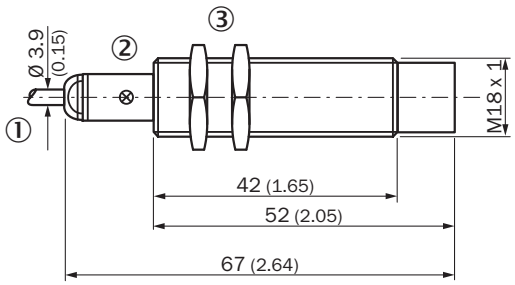


RESPONSE DIAGRAM IMA18



① St37 (FE)

DIMENSIONAL DRAWING IMA18 STANDARD, CABLE, NON-FLUSH



Dimensions in mm (inch)
① Connection
② Display LED
③ Fastening nuts (2x); width across 24, metal

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1112286

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SICK AT A GLANCE

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