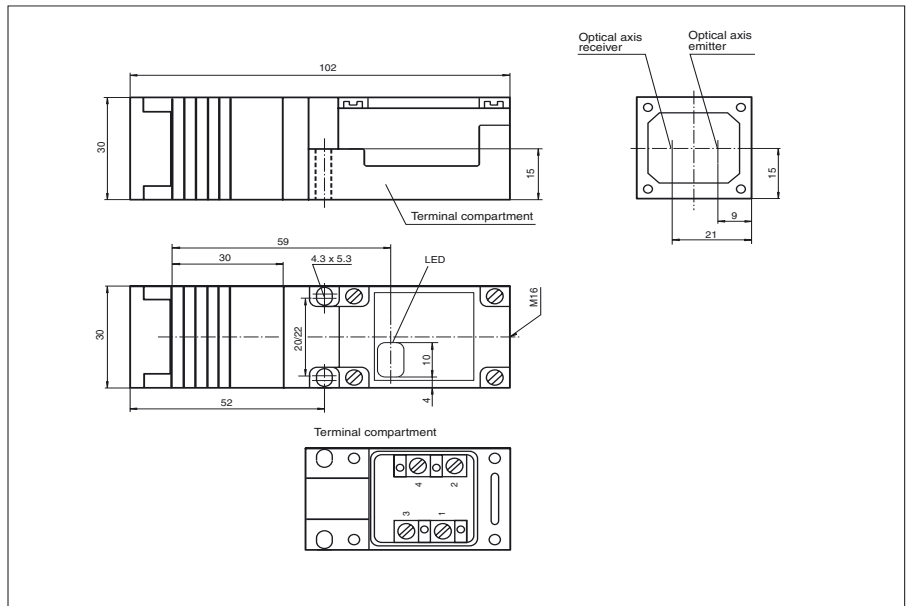




Dimensions



Model Number

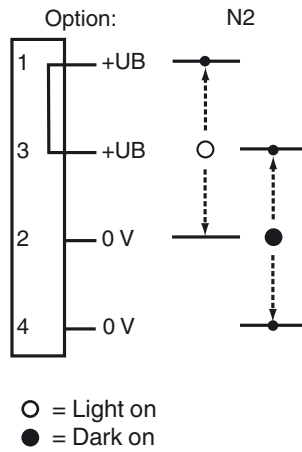
OCS2000-M1K-N2

NAMUR retroreflective sensor, special design, 2 m detection range, red light, light/dark ON, DC version, NAMUR output, terminal compartment

Features

- ATEX-, IECEx approval for zone 20 (Dust) and zone 1 (Gas)
- Intrinsically safe, Ex op is ia IIC T6 Gb/IIIC T 135 °C Da
- Glare protected with polarization filter
- Adjustable sensor head
- Scratch resistant mineral glass lens

Electrical connection



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Technical data**General specifications**

Effective detection range	0 ... 2 m
Reflector distance	100 ... 2000 mm
Threshold detection range	2 m
Reference target	Retro-reflector C110-2
Light source	LED , 660 nm
Light type	modulated visible red light
Approvals	CE
Ambient light limit	≤ 10000 Lux sun light ≤ 7500 Lux halogen light

Functional safety related parameters

MTTF _d	1319 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function display	LED yellow: switching state
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Electrical specifications

Operating voltage	U _B	6 ... 20 V DC (R _i approx. 0 Ohm)
Ripple		5 %
Time delay before availability	t _v	20 ms

Output

Switching type	light/dark on, programmable	
Signal output	1 NAMUR output NC/NO programmable	
Switching voltage	8 V DC (R _i approx. 1 kΩ)	
Switching frequency	f	≥ 100 Hz

Current consumption

Reference target detected	connection 1, 2: ≥ 2.2 mA connection 1, 4: ≤ 1 mA
Reference target not detected	connection 1, 2: ≤ 1 mA connection 1, 4: ≥ 2.2 mA

Response time	5 ms
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Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 80 °C (-40 ... 176 °F)

Mechanical specifications

Protection degree	IP67 according to EN 60529, Class II insulation
Connection	M16 terminal compartment, core cross-section ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	Scratch resistant mineral glass lens
Mass	100 g

Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2

Standards	DIN EN 60947-5-6
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Approvals and certificates**FM approval**

Approved for	IS / I,II,III / 1 / ABCDEFG / T5 - 116-0110; Entity NI / I / 2 / ABCD / T6 Entity Parameters: V _{Max} = 12.6 V, I _{Max} = 20 mA, C _i = 1.11 μF, L _i = 0 mH (Groups A, B, C, D, E, F, G). V _{Max} = 15.5 V, I _{Max} = 52 mA, C _i = 1.11 μF, L _i = 0 mH (Groups C, D, E, F, G).
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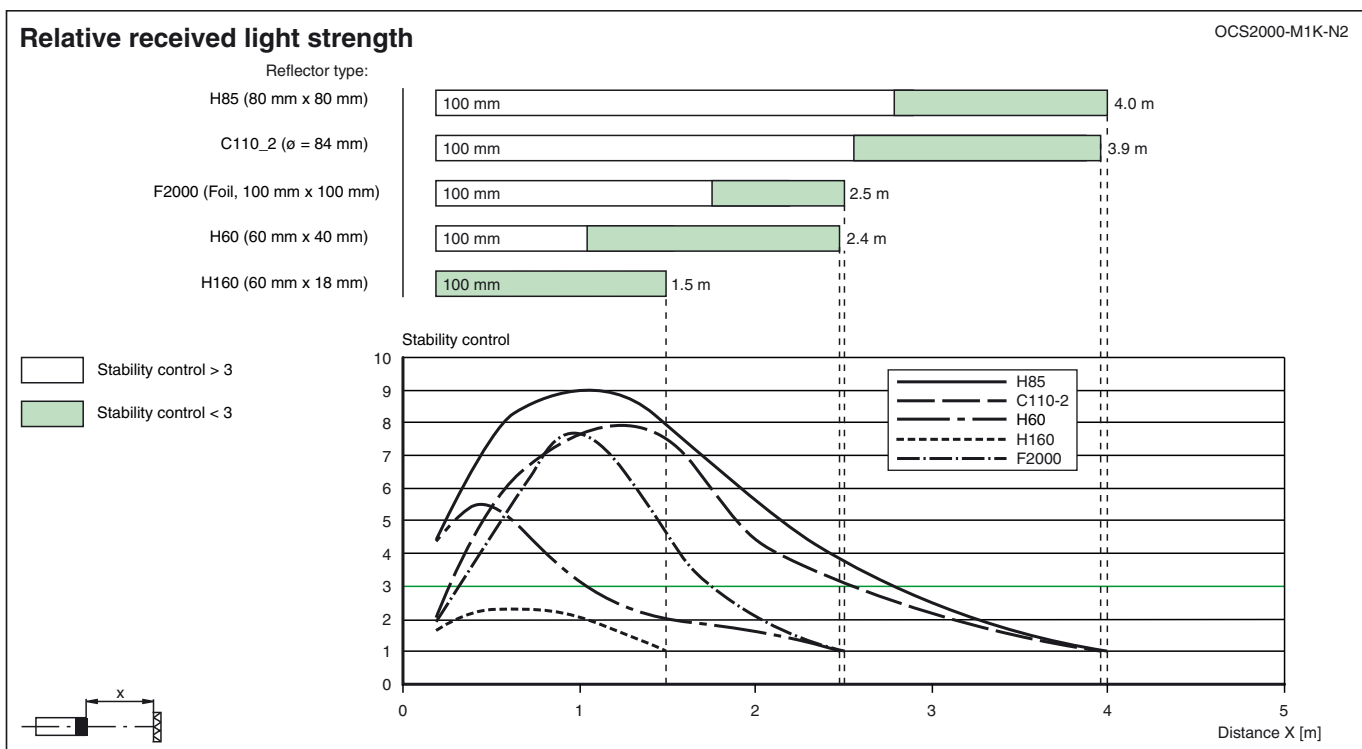
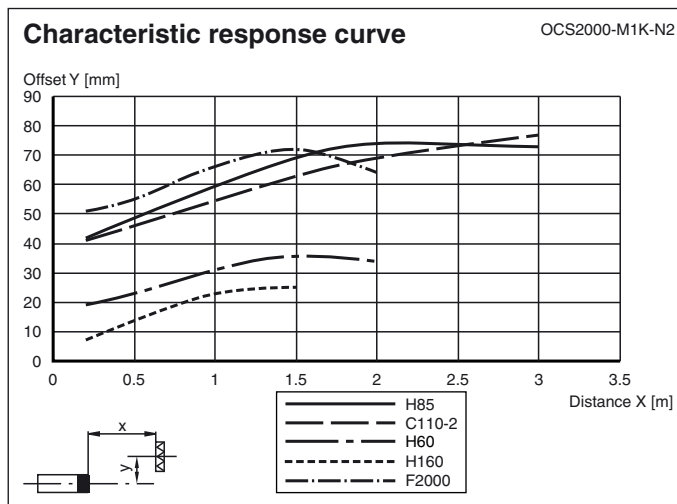
CSA approval

Approved for	Class I, Division 2, Groups A, B, C and D Rated 20V (max), 50mA. These sensors are suitable for installation in (or through the wall of) a suitable enclosure with provision for connection of rigid metal conduit, as acceptable to the local inspection authority having jurisdiction.
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CCC approval

CCC approval / marking not required for products rated ≤36 V	
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Curves / Diagrams



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