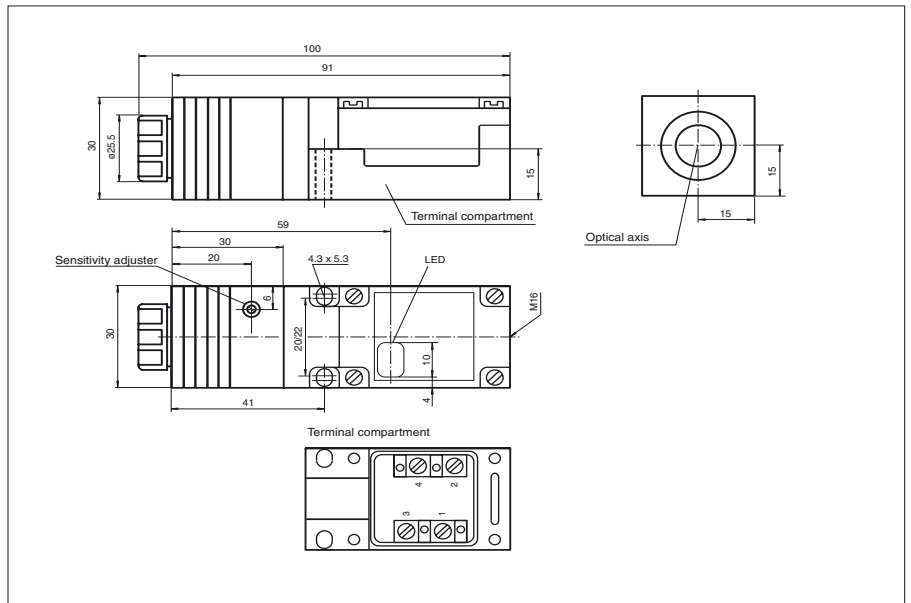




**Dimensions**



**Model Number**

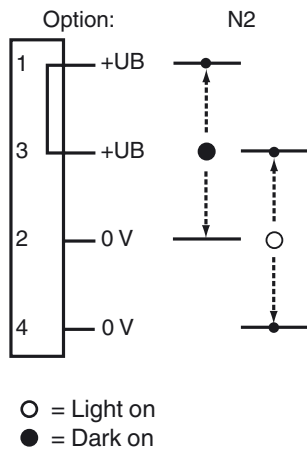
**OCT300-M1K-N2**

Diffuse mode sensor, NAMUR, special design, 300 mm detection range, infrared 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
- Adjustable sensor head
- Scratch resistant mineral glass lens
- Used with glass fiber optics, adapter type 18

**Electrical connection**



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**Technical data****General specifications**

Detection range	0 ... 300 mm
Adjustment range	70 ... 300 mm
Reference target	standard white 200 mm x 200 mm
Light source	IRED , 880 nm
Light type	modulated infrared light
Approvals	CE
Ambient light limit	≤ 40000 Lux sun light ≤ 30000 Lux halogen light
Temperature influence	≤ 0.5 mm/K

**Functional safety related parameters**

MTTF <sub>d</sub>	1319 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

Function display	LED yellow: switching state
Controls	Detection range adjuster

**Electrical specifications**

Operating voltage	U <sub>B</sub>	6 ... 20 V DC (R <sub>i</sub> approx. 0 Ohm)
Ripple		5 %
Time delay before availability	t <sub>v</sub>	20 ms

**Output**

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

**Current consumption**

Reference target detected	connection 1, 2: ≤ 1 mA connection 3, 4: ≥ 2.7 mA
Reference target not detected	connection 1, 2: ≥ 2.7 mA connection 3, 4: ≤ 1 mA
Response time	5 ms
Repeat accuracy	R ≤ 0.5 % of the sensing range

**Ambient conditions**

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

**Mechanical specifications**

Protection degree	IP67
Connection	M16&nbsp;terminal compartment, core cross-section ≤ 2.5 mm <sup>2</sup>
Material	
Housing	PBT
Optical face	Scratch resistant mineral glass lens
Mass	100 g

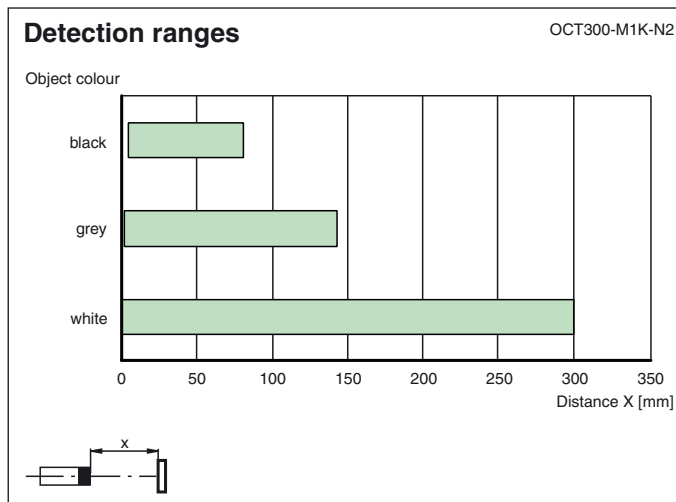
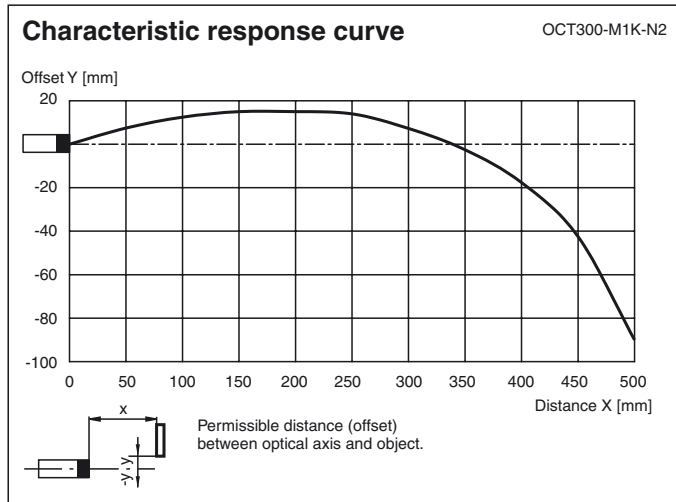
**Compliance with standards and directives**

Standard conformity	
Product standard	EN 60947-5-2
Standards	DIN EN 60947-5-6

**Approvals and certificates**

FM approval	
Approved for	IS / I,II,III / 1 / ABCDEFG / T5 - 116-0110; Entity NI / I / 2 / ABCD / T6 Entity Parameters: VMax = 12.6 V, IMax = 20 mA, Ci = 1.11 µF, Li = 0 mH (Groups A, B, C, D, E, F, G). VMax = 15.5 V, IMax = 52 mA, Ci = 1.11 µF, Li = 0 mH (Groups C, D, E, F, G).
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.
CCC approval	CCC approval / marking not required for products rated ≤36 V

Curves / Diagrams



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