



Model Number

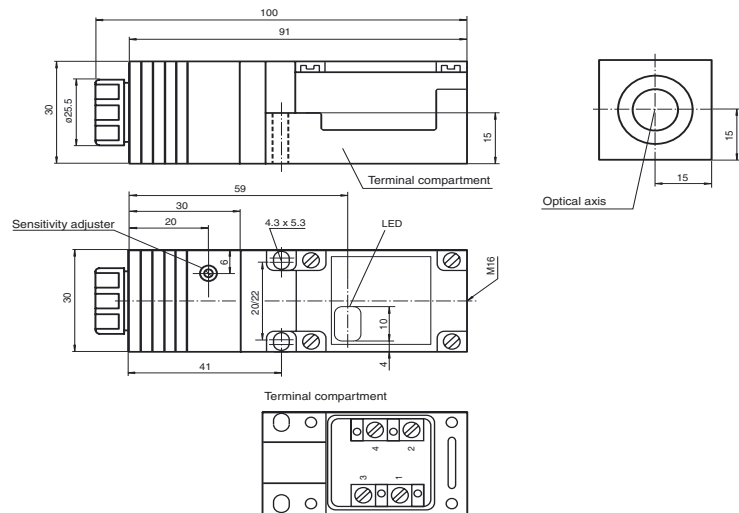
OCT300-M1K-N2

Diffuse mode sensor, NAMUR, special design, 300 mm detection range, infrared light, light/dark ON, DC version, NAMUR output, terminal compartment

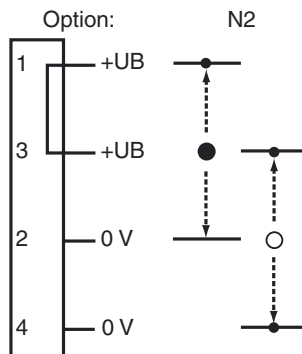
Features

- 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

Dimensions



Electrical connection



○ = Light on
● = Dark on

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

Indicators/operating means

Function display	LED yellow: switching state
Controls	Detection range adjuster

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: ≤ 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 terminal compartment, core cross-section ≤ 2.5 mm ²
Material	
Housing	PBT
Optical face	Scratch resistant mineral glass lens
Mass	100 g

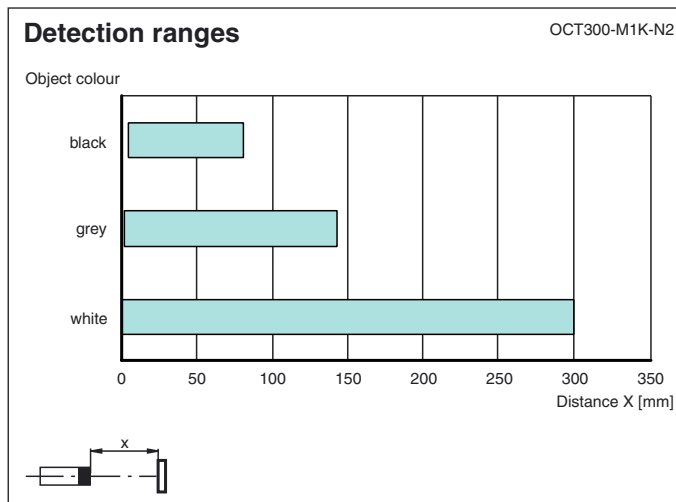
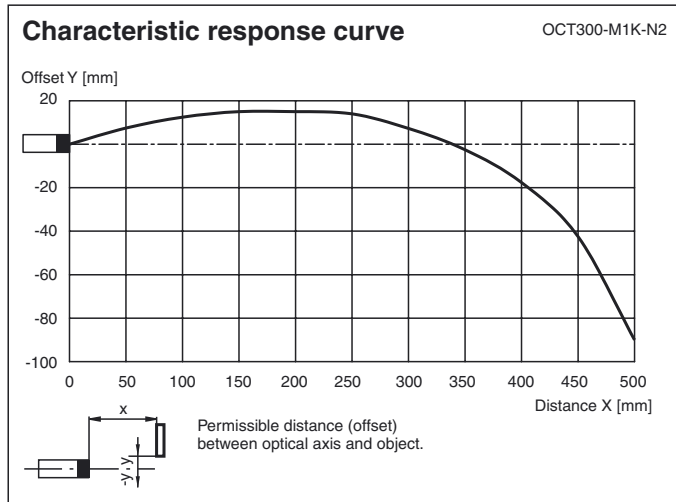
Compliance with standards and directives

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

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



Release date: 2013-02-07 13:02 Date of issue: 2013-02-20 106541_eng.xml