



QM

QMR7/0N-0F

Photo.Min,NPN-NO/NC,M8 plug,Diffuse
MINIATURIZED PHOTOELECTRIC SENSORS WITH HIGH
PERFORMANCE

OVERVIEW

- Cubic miniaturized photoelectric high-performance sensors with long sensing distance
- 2 kHz switching frequency, background suppression with mechanical adjustment
- Wide range of models: diffuse reflection with short, medium and long sensing distance, polarized, reflective for transparent objects, through-beam and background suppression
- Available with cable and M8 plug exit or with M8-M12 pig-tail
- Selectable LO/DO output state
- Completely filled with resin (except background suppression models)
- Complete protection against electrical damages



TECHNICAL FEATURES

Detection properties

Nominal sensing distance	400mm
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Thermal drift of Sr	≤10% Sr
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Repeat Accuracy	5%
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Sensitivity adjustment	Trimmer
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Application

Function Principle	Diffuse reflection (medium distance, $\leq 600\text{mm}$)
Notes	white target Kodak 90% 200 x 200mm
Optic position	Radial 90°

Outputs

Output type	NPN L/D Selectable
Output Function	L/D Selectable
Switching frequency	2kHz
Response time	250 μs

Electrical data

Operating Voltage	10...30VDC
No-Load supply current	$\leq 30\text{mA}$
Load current	$\leq 100\text{mA}$
Leakage current	$\leq 10\mu\text{A}$
Output voltage drop	$\leq 2\text{V}@I_{\text{load}}=100\text{mA}$
Max ripple content	$\leq 10\%$
LED indicators	Yellow (status output), green (stability)
Time delay before availability	$\leq 200\text{ms}$
Short-circuit protection	Yes

Reverse Polarity Protection	Yes
Emission	LED Red (630nm)
Interference to external light	3000lux (incandescent lamp), 10000lux (sunlight)
Impulsive Overvoltage Protection	Yes

Mechanical data

Dimensions	40,6x21x13mm
Housing material	PA66
Weight	10g
Connections	M8 plug 4pin
Active Head Material	PMMA
Tightening torque	1Nm
Operating temperature	- 25°C...+ 70° C (Without freeze)
Storage temperature	- 30°C...+ 80° C (Without freeze)
Diameter/Dimension	Cubic

Test/Approvals

Approvals	CE cULus
EMC compatibility	EN 60947-5-2
Shocks and vibrations	Vibration IEC 60068-2-6 / Shock IEC 60068-2-27

Degree of protection

IP67

Generical Data

Dimensions

40,6x21x13mm

Operating Temperature

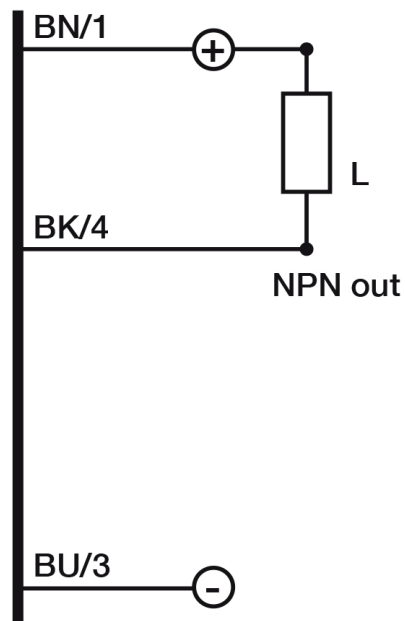
- 25°C...+ 70°C (Without freeze)

Mechanical Protection

IP67

CONNECTIONS

Electrical diagram

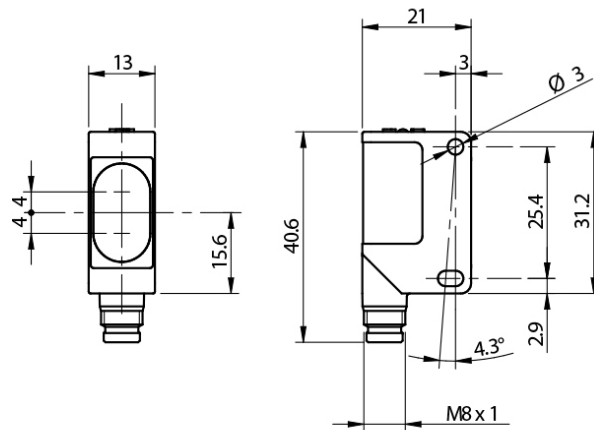


Connector

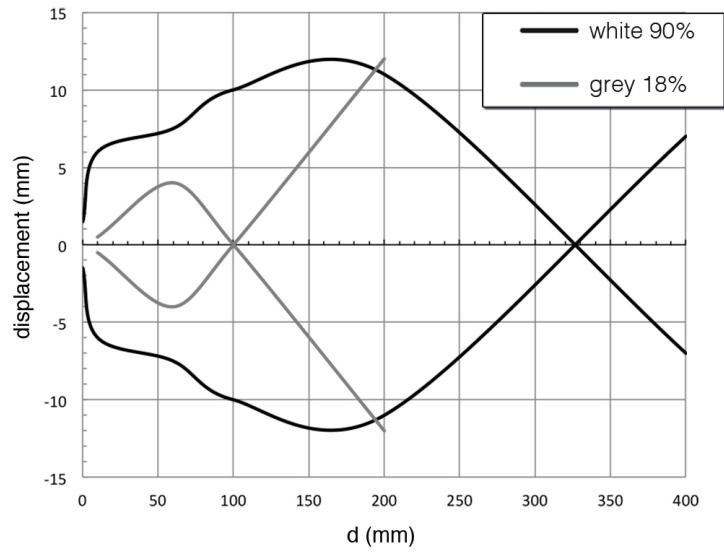


OTHERS

Dimensions



Response curves



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