



QM

QMRB/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	100mm
--------------------------	-------

Thermal drift of Sr	$\leq 10\%$ Sr
---------------------	----------------

Repeat Accuracy	5%
-----------------	----

Sensitivity adjustment	Trimmer
------------------------	---------

Application

Function Principle	Diffuse reflection (short distance, $\leq 200\text{mm}$)
--------------------	---

Notes	white target Kodak 90% 100 x 100mm
-------	------------------------------------

Optic position	Radial 90°
----------------	-------------------

Outputs

Output type	NPN L/D Selectable
-------------	--------------------

Output Function	L/D Selectable
-----------------	----------------

Switching frequency	1Khz
---------------------	------

Response time	500 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

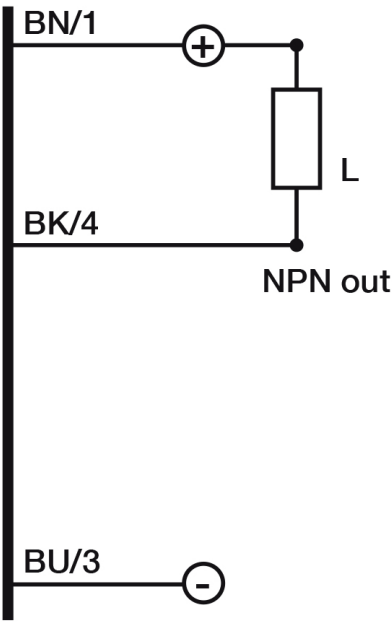
Test/Approvals

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

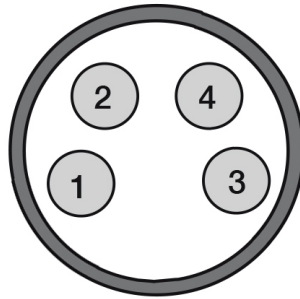
Degree of protection	IP67
Generical Data	
Dimensions	40,6x21x13mm
Operating Temperature	- 25°C...+ 70°C (Without freeze)
Mechanical Protection	IP67

CONNECTIONS

Eletrical diagram

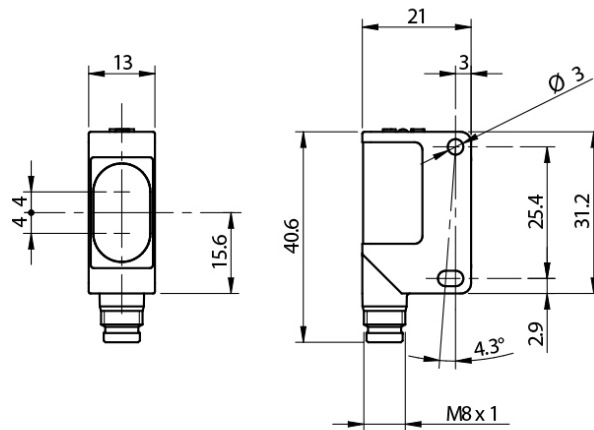


Connector

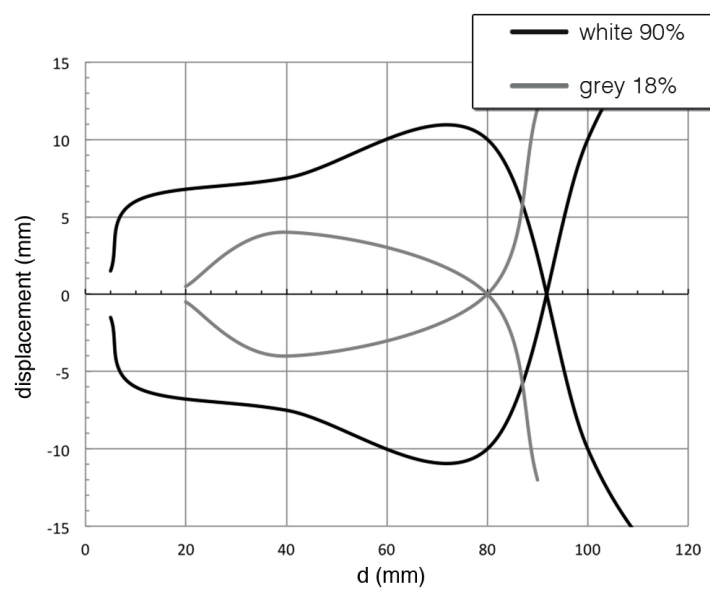


OTHERS

Dimensions



Response curves



Datasensing S.r.l.

Strada S.Caterina, 235
41122 Modena (MO)
Tel. 059 420411
Fax 059 253973
E-mail
info@datasensing.com

**date of
printing**
10/08/2026
02:48:02