



Micro Detectors

Italian Sensors Technology

Cubic photoelectric
miniaturized sensor
QMRG to detect
transparent object



Photoelectric sensors
Data sheet

Cod. CAT3EQM1260001

Datasheet - QMRG - english - Ed.01/2012



GENERAL DESCRIPTION

QMRG

- Completely filled with resin
- 2 kHz switching frequency
- Available with cable and M8 plug exit or M8-M12 pig-tail
- LO/DO selectable output
- IP67 protection degree
- Complete protection against electrical damages



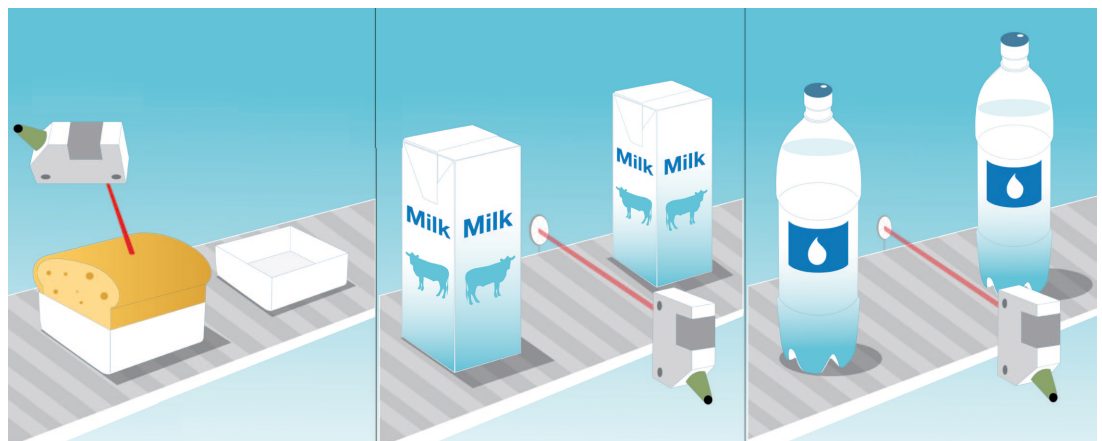
The Cubic Miniaturized Photo Sensor QMRG allows the perfect detection of transparent objects thanks to a distance capability range from 50 mm to 1,5 m, between the photocell and reflector. It can be used for plastic and glass bottles, and also for plastic film in the following application fields:

- Packaging (beverage, food, fruit, cosmetics and Pharmaceutical)
- Glass

It is adjustable by a trimmer for a better sensibility and it has been realized with a 2kHz switching frequency for a more accurate detection.

QMRG is available with NPN and PNP output, NO/NC selectable, and cable, M8, and M8/M12 pigtail connections. The sensor is certified IP67 and it is completely in resin full filled, for this reason, it is perfectly working in high vibration areas. It can be used with armored brackets as ST 103 and ST 104, granting a complete shock protection.

The sensor QMRG completes the transparent objects detection sensors range. (QMRL with distance range 350 mm ÷ 4m, M18 body, and distance range detection 100mm ÷ 1m).



TECHNICAL SPECIFICATIONS (in conformity with 2004/108/EC directives, according to European law IEC 60947-5-2 amendments (Edition 3.0, 2007-10))

DIMENSIONS

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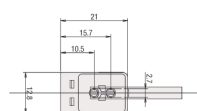
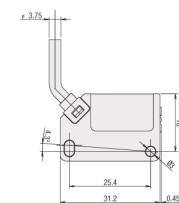
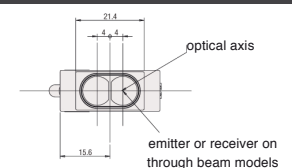
Model	QMRG/0*-0*
Normal sensing distance (Sn)	0,05 - 1,5 m ⁽¹⁾
Emission	Red (630 nm)
Differential travel	≤ 10%
Operating voltage	10...30 Vcc
Ripple	≤ 10%
No load supply current	≤ 30 mA
Load current	≤ 100 mA
Leakage current	≤ 10 μA
Output voltage drop	2 V _{max.} @ I _L = 100mA
Output type	NPN/PNP NO o NC
Switching frequency	2 kHz
Time delay before availability	≤ 100 ms
Supply electrical protection	polarity reversal, impulsive overvoltage
Protection electrical output	short circuit (autoreset) overvoltage
Sensitivity adjustment	Yes
Operative temperature range	-25 ... +70°C without freeze
Storage temperature	-25 ... +80°C
Interference to external light	3.000 lux (incandescence light) 10.000 lux (sun light)
Protection degree	IP67 (EN60529) ⁽²⁾
LED indicators	Yellow (output status LO/DO) Green (excess gain)
Housing material	PBT
Optic material	PMMA
Tightening torque	1 Nm ⁽³⁾
Weight (approx.)	10 gr (out M8) / 52 gr (cable)

⁽¹⁾ With RL 110 reflector EG= 2

⁽²⁾ Protection guaranteed only with plug correctly mounted

⁽³⁾ Screws, nuts and mounting brackets are not included with the sensor (accessories)

Dimensions of cable exit models



Dimensions of M8 plug exit models

