



# QM

## QMRN/0P-0A

**Photo.Min,PNP-NO/NC,Cable,Reflex**  
**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	5m
Thermal drift of Sr	≤10% Sr
Repeat Accuracy	5%
Sensitivity adjustment	Trimmer

## Application

Function Principle	Polarized
Notes	On RL110 reflector
Optic position	Radial 90°

## Outputs

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

## Electrical data

Operating Voltage	10...30VDC
No-Load supply current	≤ 30mA
Load current	≤100mA
Leakage current	≤10µA
Output voltage drop	≤2V@Iload=100mA
Max ripple content	≤10%
LED indicators	Yellow (status output), green (stability)
Time delay before availability	≤200ms
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	31,2x21x13mm
Weight	52g
Housing Material	PA66
Connections	2m PVC cable
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

31,2x21x13mm

Operating Temperature

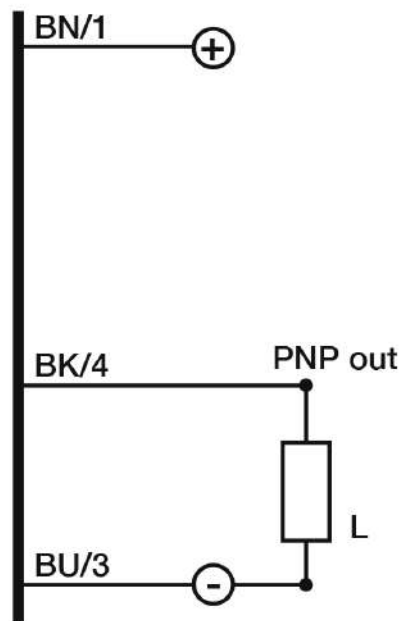
- 25°C...+ 70°C (Without freeze)

Mechanical Protection

IP67

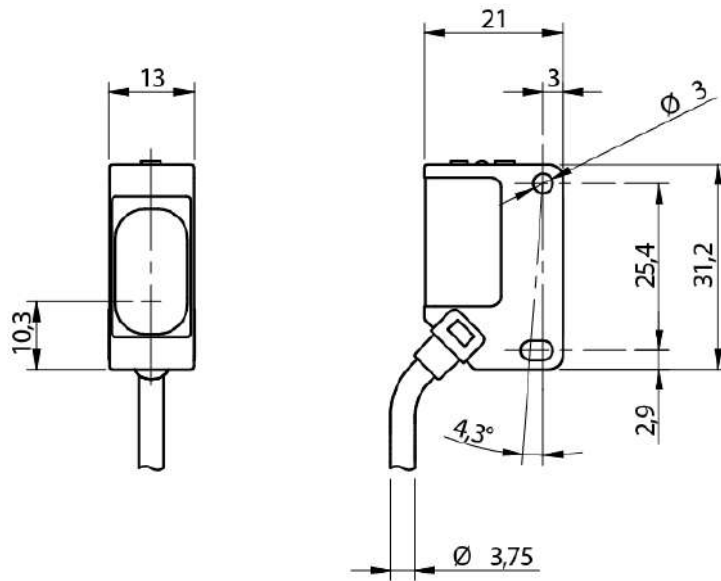
## CONNECTIONS

Electrical diagram

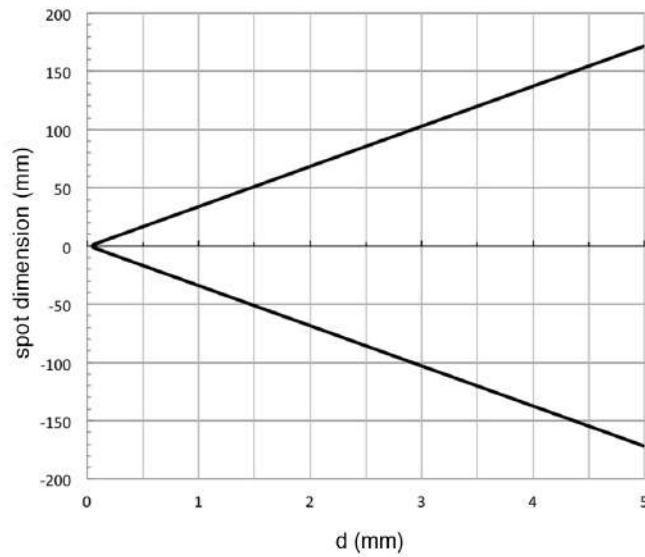


## OTHERS

Dimensions



Response curves



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