



**QF**

**QFR8/BN-1F**

**Photo.Min, NPN-NO+NC, M8 plug, Diffuse METALLIC CUBIC MINIATURIZED PHOTOELECTRIC SENSORS. FOR HARSH ENVIRONMENTS OR FOOD AND BEVERAGE APPLICATIONS.**

## OVERVIEW



## TECHNICAL FEATURES

### Detection properties

Nominal sensing distance	1m
Repeat Accuracy	5%
Sensitivity adjustment	Trimmer

### Application

Function Principle	Diffuse reflection (medium distance, ≤600mm)
Notes	white target Kodak 90% 400 x 400mm
Emitter/Receiver	

Optic position	Radial 90°
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#### Outputs

Output type	NPN NO+NC
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Output Function	NO+NC
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Switching frequency	1Khz
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Response time	500μs
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#### Electrical data

Operating Voltage	10...30VDC
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No-Load supply current	≤ 25mA
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Load current	≤100mA
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Leakage current	≤100μA
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Output voltage drop	≤2V@Iload=100mA
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Max ripple content	≤10%
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LED indicators	Yellow (status output), green (stability, powerON)
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Time delay before availability	≤200ms
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Short-circuit protection	Yes
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Reverse Polarity Protection	Yes
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Emission	LED Red (617nm)
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Interference to external light	≤10000lux
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Impulsive Overvoltage Protection	Yes
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#### Mechanical data

Dimensions	31,4x21x11mm
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Housing material	Stainless steel AISI 316L
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Weight	65g
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Connections	M8 plug 4pin
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Active Head Material	PPSU
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Operating temperature	- 25°C...+ 60° C (Without freeze)
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Storage temperature	-40° ... +70°C
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Diameter/Dimension	Cubic
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#### Test/Approvals

Approvals	CE cULus ECOLAB
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EMC compatibility	EN 60947-5-2
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Shocks and vibrations	Vibration IEC 60068-2-6 / Shock IEC 60068-2-27
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Degree of protection	IP68, IP69K
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#### Accessories

Supplied Accessories	Mouting bracket screwdriver
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#### Generical Data

Dimensions

31,4x21x11mm

Operating Temperature

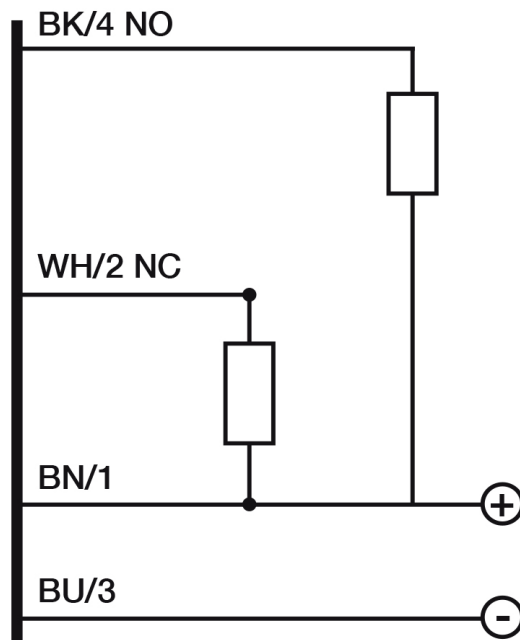
- 15°C...+ 55°C (Without freeze)

Mechanical Protection

IP68, IP69K

## CONNECTIONS

Electrical diagram

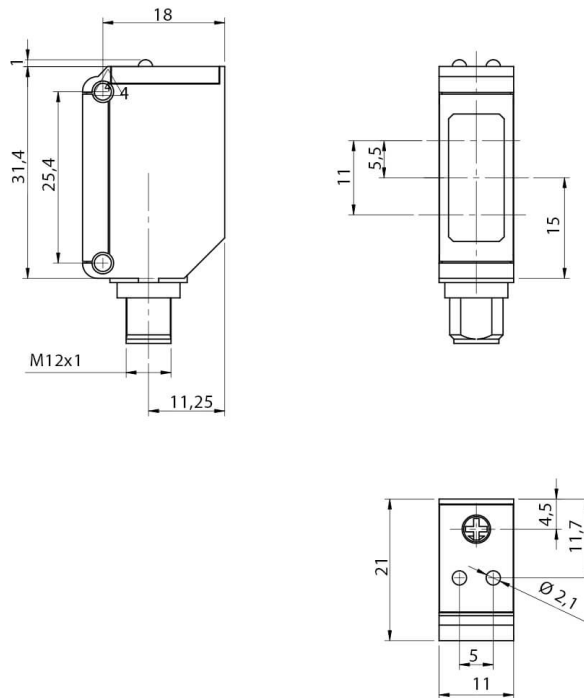


Connector

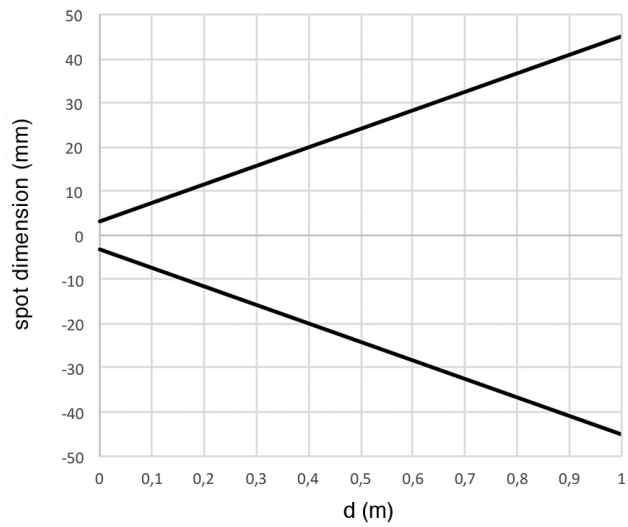


## OTHERS

### Dimensions



### Response curves



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