



**QF**

**QFR8/BN-1A**

**Photo.Min, NPN-NO+NC, Cable, 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°
----------------	------------

#### Outputs

Output type	NPN NO+NC
-------------	-----------

Output Function	NO+NC
-----------------	-------

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

Response time	500μs
---------------	-------

#### Electrical data

Operating Voltage	10...30VDC
-------------------	------------

No-Load supply current	≤ 25mA
------------------------	--------

Load current	≤100mA
--------------	--------

Leakage current	≤100μA
-----------------	--------

Output voltage drop	≤2V@Iload=100mA
---------------------	-----------------

Max ripple content	≤10%
--------------------	------

LED indicators	Yellow (status output), green (stability, powerON)
----------------	--

Time delay before availability	≤200ms
--------------------------------	--------

Short-circuit protection	Yes
--------------------------	-----

Reverse Polarity Protection	Yes
-----------------------------	-----

Emission	LED Red (617nm)
----------	-----------------

Interference to external light	≤10000lux
Impulsive Overvoltage Protection	Yes

#### Mechanical data

Dimensions	31,4x21x11mm
Housing material	Stainless steel AISI 316L
Weight	100g
Connections	2m PVC cable
Active Head Material	PPSU
Operating temperature	- 25°C...+ 60° C (Without freeze)
Storage temperature	-40° ... +70°C
Diameter/Dimension	Cubic

#### Test/Approvals

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

#### Accessories

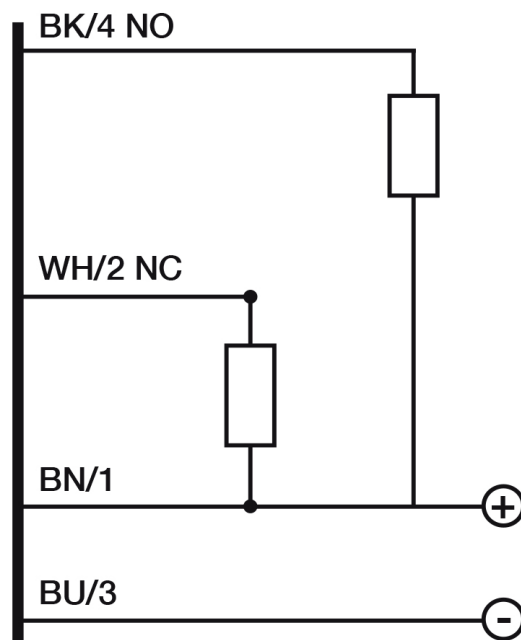
Supplied Accessories	Mouting bracket screwdriver
----------------------	-----------------------------

#### Generical Data

Dimensions	31,4x21x11mm
Operating Temperature	- 15°C...+ 55°C (Without freeze)
Mechanical Protection	IP68, IP69K

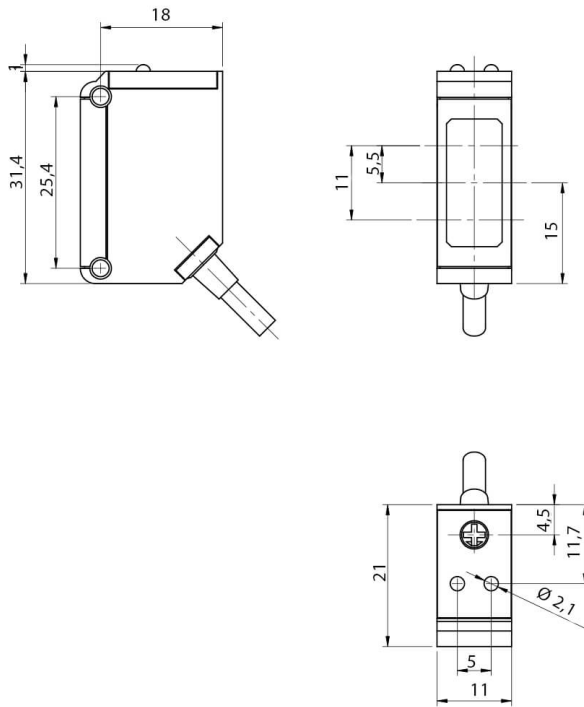
## CONNECTIONS

Electrical diagram

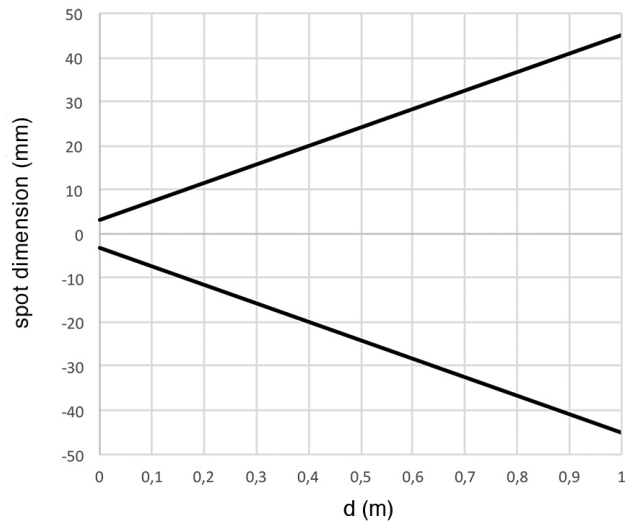


## OTHERS

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**  
28/05/2026  
19:41:02