



# FA

## FAI7/BP-1E

Photo.M18,PNP-NO+NC,M12 plug,Diffuse  
M18 PHOTOELECTRIC SENSORS DC

## OVERVIEW

- Complete range of M18 sensors with 10...30 Vdc power supply
- Axial and radial optic with flat surface
- Retro-reflective models for transparent objects detection, with red emission IP67 protection degree
- Metallic or plastic housing
- Sensitivity adjustment available for all models
- Total protection against any type of electric damages
- Approvals: CE and cULus listed



## TECHNICAL FEATURES

### Detection properties

Nominal sensing distance	400mm
Thermal drift of Sr	$\leq 10\%$ Sr
Repeat Accuracy	5%
Sensitivity adjustment	Trimmer

### Application

Function Principle	Diffuse reflection (medium distance, $\leq 600\text{mm}$ )
Notes	white target Kodak 90% 200 x 200mm
Optic position	Axial

#### Outputs

Output type	PNP NO+NC
Output Function	NO+NC
Switching frequency	250Hz
Response time	2ms

#### 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 (Lon) or output status Lo/Do
Time delay before availability	$\leq 200\text{ms}$
Short-circuit protection	Short circuit (autoreset), Overvoltage

Reverse Polarity Protection	Polarity inversal, Impulsive voltage
Emission	LED Infrared (880nm)
Interference to external light	3000lux (incandescent lamp), 10000lux (sunlight)

#### Mechanical data

Dimensions	M18 x 1 /L =81,6mm
Housing material	Nickel plated brass / PC plug
Weight	100g
Connections	M12 plug
Active Head Material	PC
Tightening torque	25Nm
Operating temperature	- 25°C...+ 70° C (Without freeze)
Diameter/Dimension	M18

#### 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

#### Accessories

--	--

Supplied Accessories

nuts M18 x 1, screwdriver

### Generical Data

Dimensions

M18 x 1 /L =81,6mm

Operating Temperature

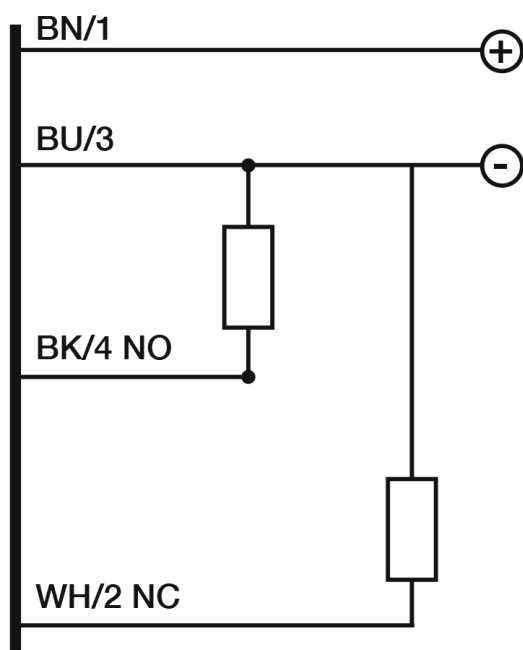
- 25°C...+ 70°C (Without freeze)

Mechanical Protection

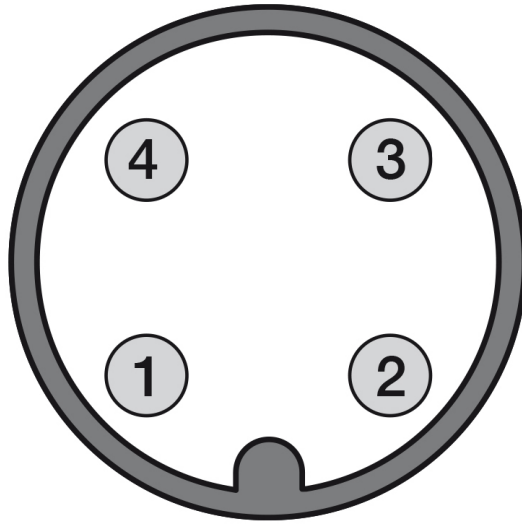
IP67

## CONNECTIONS

Electrical diagram

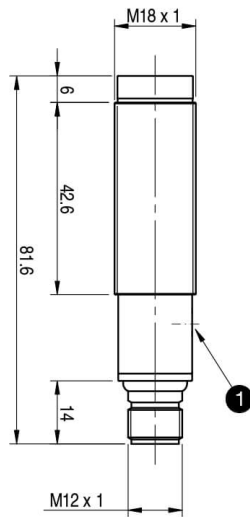
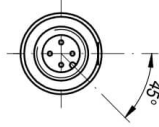


Connector



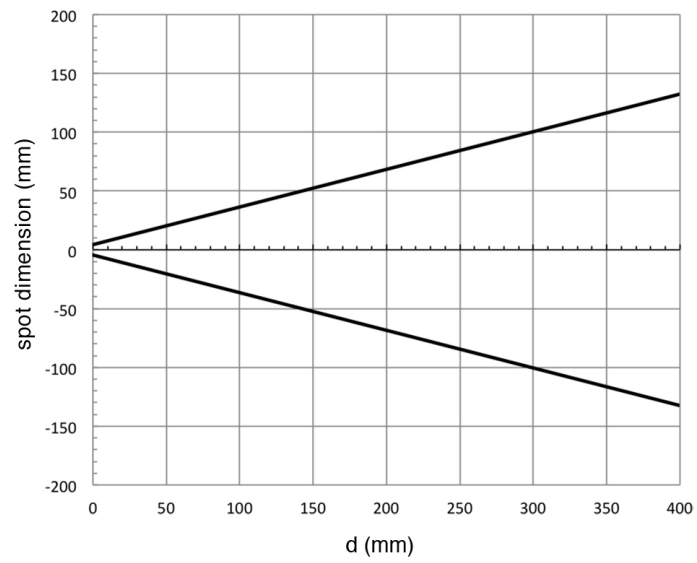
## OTHERS

### Dimensions



1 Trimmer

### 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**  
05/06/2026  
20:31:30