



# FA

## FARP/BP-1E

Photo.M18,PNP-NO+NC,M12 plug,Reflex  
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 | 4m             |
| Thermal drift of Sr      | $\leq 10\%$ Sr |
| Repeat Accuracy          | 5%             |
| Sensitivity adjustment   | No             |

### Application

|                    |                    |
|--------------------|--------------------|
| Function Principle | Polarized          |
| Notes              | On RL110 reflector |
| 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 Red (660nm)                                  |
| Interference to external light | 5000lux (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  | PMMA                              |
| 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

### Generical Data

Dimensions

M18 x 1 /L =81,6mm

Operating Temperature

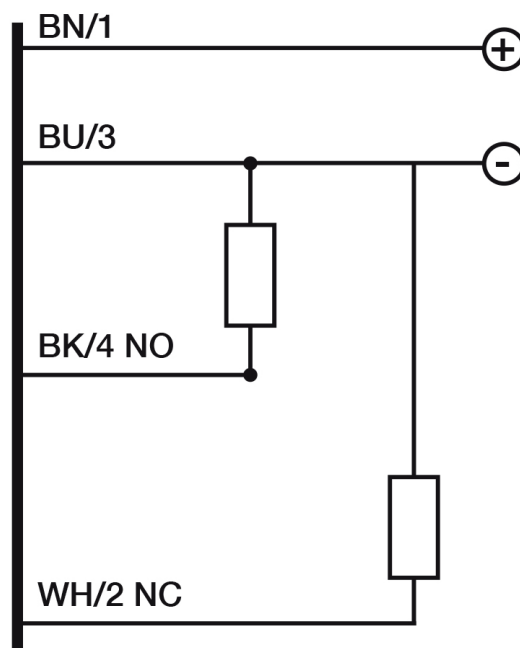
- 25°C...+ 70°C (Without freeze)

Mechanical Protection

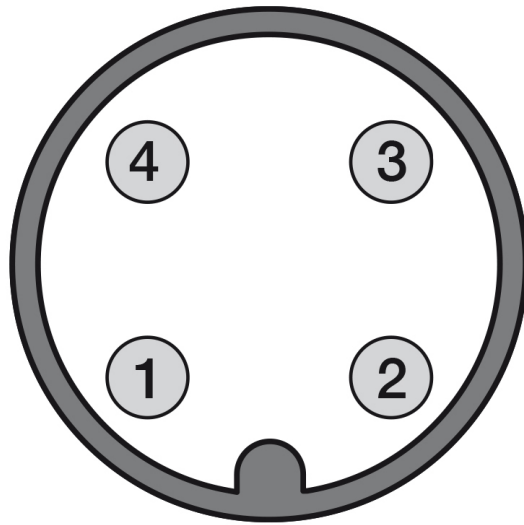
IP67

## CONNECTIONS

Electrical diagram



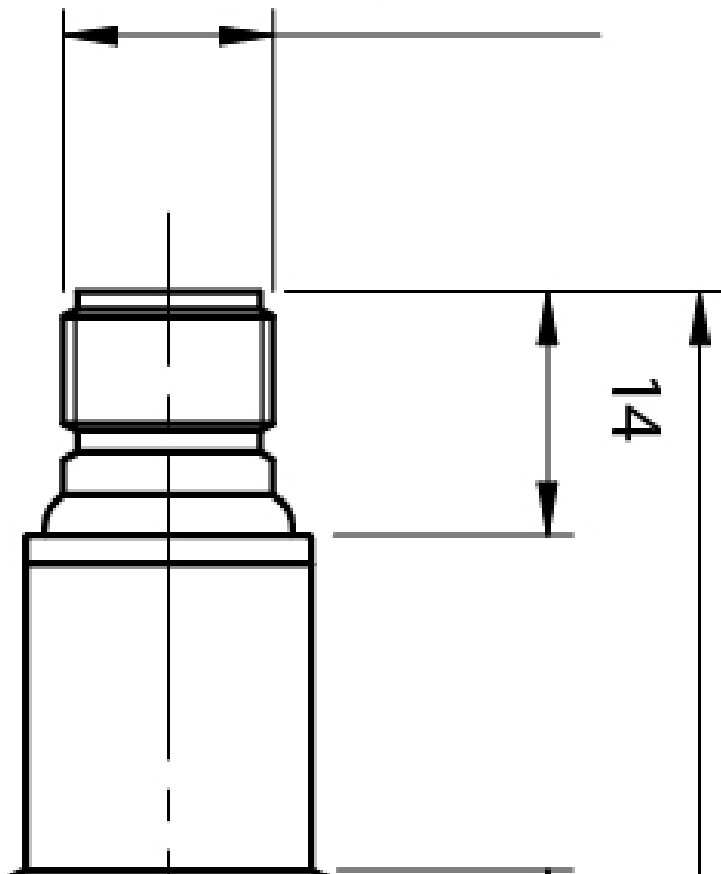
Connector

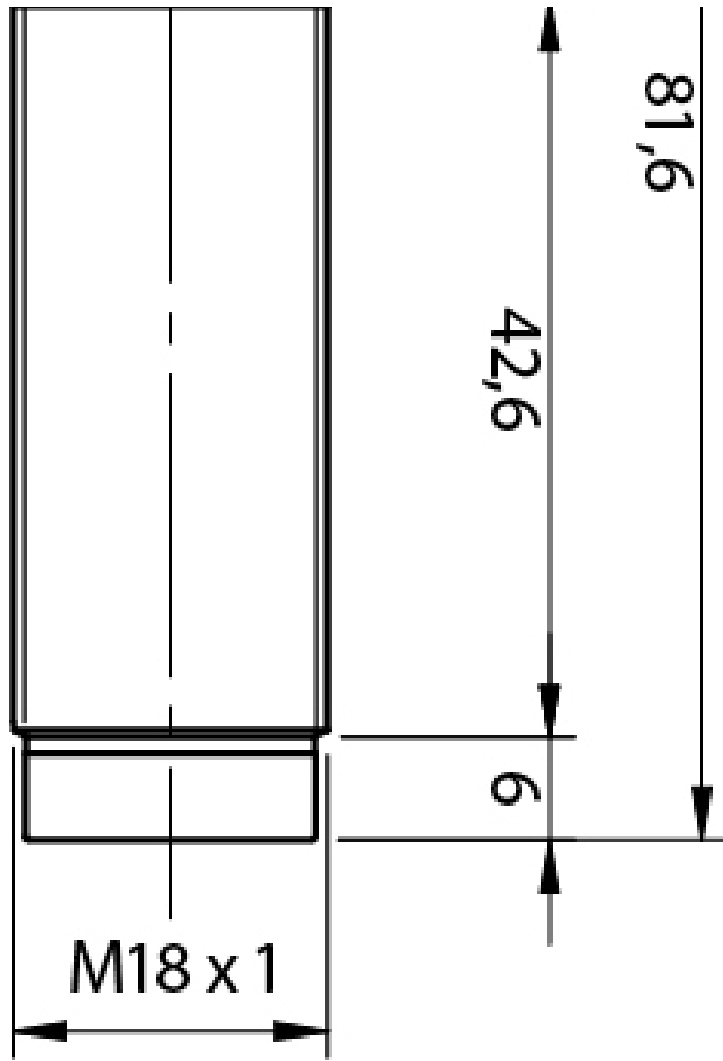


## OTHERS

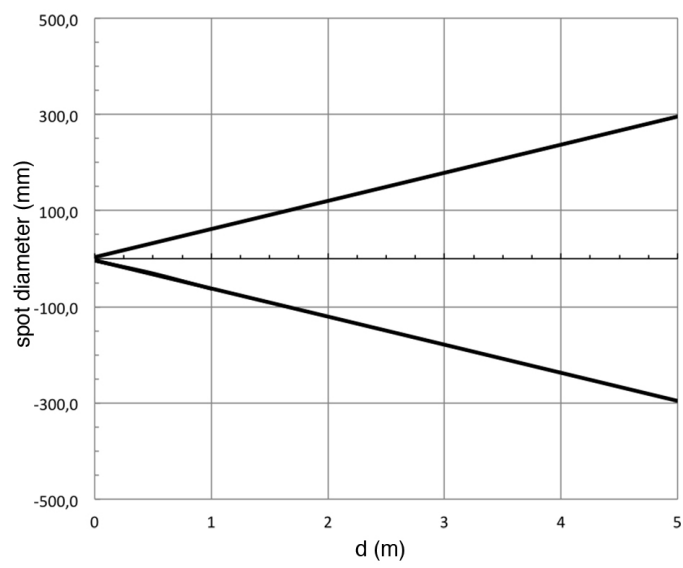
Dimensions

**M12 x 1**





Response curves



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