



# FA

## FARS/BN-1A

Photo.M18,NPN-NO+NC,Cable,BGS  
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         | 130mm          |
| Thermal drift of Sr              | $\leq 10\%$ Sr |
| Repeat Accuracy                  | 5%             |
| Sensitivity adjustment           | Trimmer        |
| Minimum sensing distance (blind) | 30mm           |

zone)

Application

|                    |                                    |
|--------------------|------------------------------------|
| Function Principle | Blackground suppression            |
| Notes              | white target Kodak 90% 100 x 100mm |
| Optic position     | Axial                              |

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                | ≤10μA                               |
| Output voltage drop            | ≤2V@Iload=100mA                     |
| Max ripple content             | ≤10%                                |
| LED indicators                 | Yellow (Lon) or output status Lo/Do |
| Time delay before availability | ≤200ms                              |

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| 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=65,5mm                    |
| Housing material      | Nickel plated brass / PC cable exit |
| Weight                | 130g                                |
| Connections           | 2m PVC cable                        |
| 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, screwdriver

## Generical Data

### Dimensions

M18 x 1/L=65,5mm

### Operating Temperature

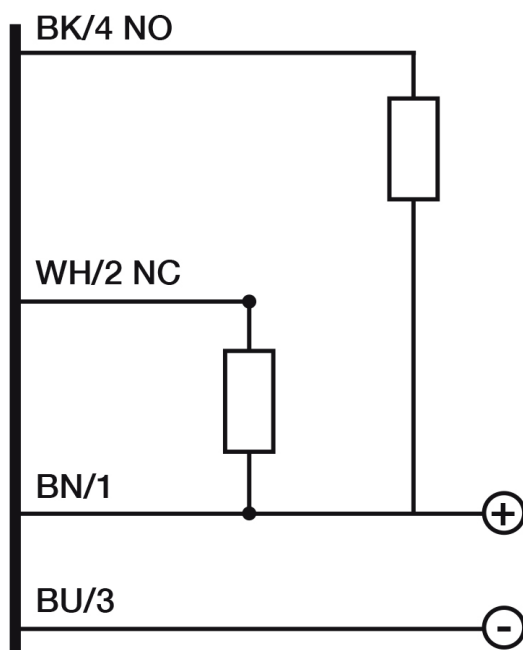
- 25°C...+ 70°C (Without freeze)

### Mechanical Protection

IP67

# CONNECTIONS

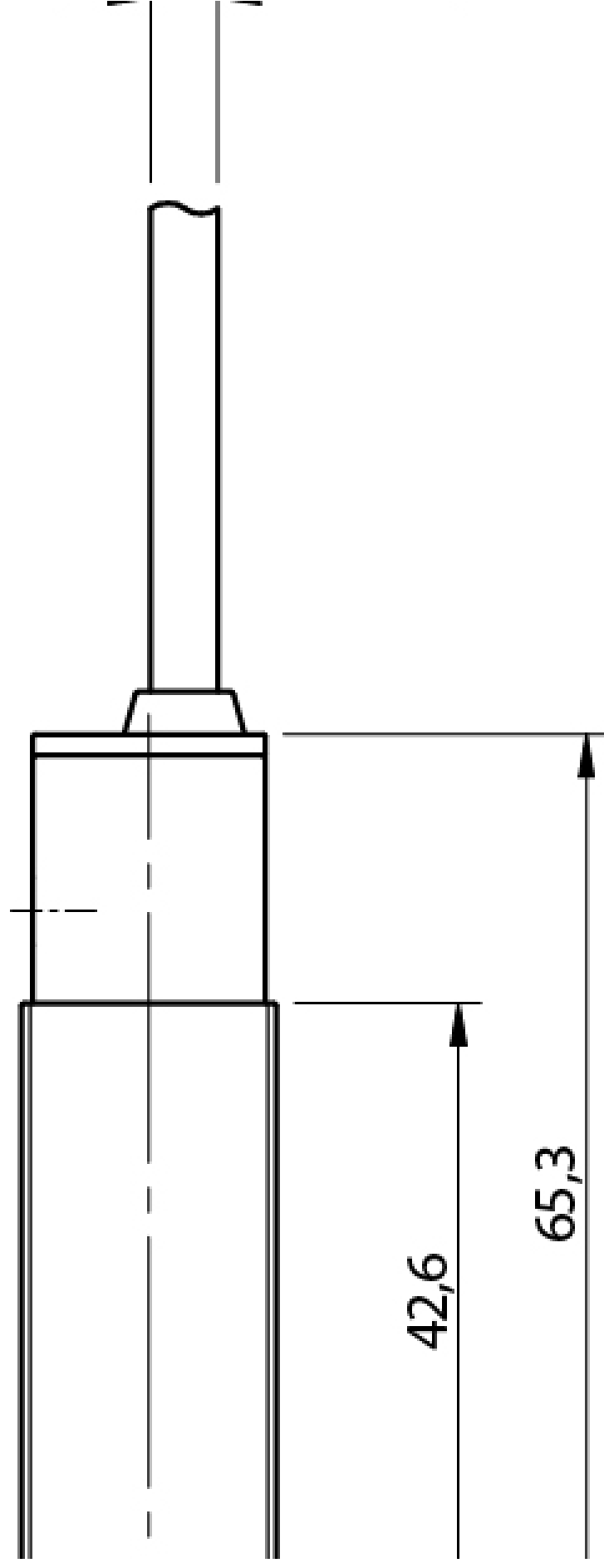
Eletrical diagram

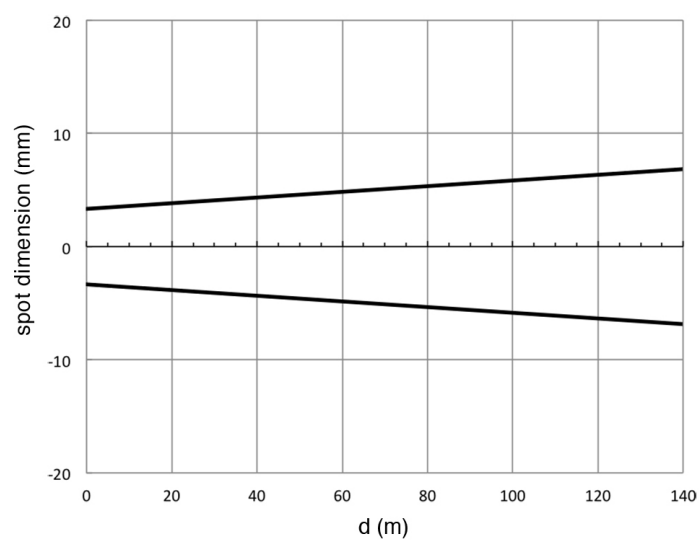
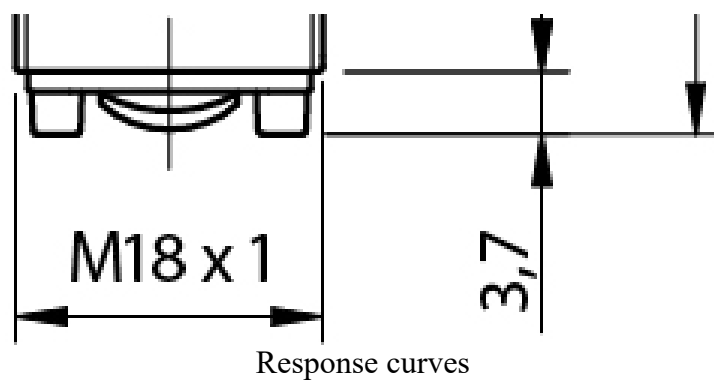


# OTHERS

Dimensions







## Datasensing S.r.l.

Strada S.Caterina, 235  
41122 Modena (MO)  
Tel. 059 420411  
Fax 059 253973  
E-mail  
info@datasensing.com

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