



# FAL

## FALN/BP-3E

**Photo.M18,Laser emiss.,PNP-NO+NC,M12  
plug,Reflex**

M18 PHOTOELECTRIC SENSORS DC LASER EMISSION

## OVERVIEW

- Complete range of M18 sensors with 10...30 Vdc power supply
- Axial and radial optic with flat surface
- Visible red laser emission models
- 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 | 20m      |
| Thermal drift of Sr      | ≤10% Sr  |
| Repeat Accuracy          | 5%       |
| Sensitivity adjustment   | Teach-in |

|                    |                                                  |
|--------------------|--------------------------------------------------|
| Application        |                                                  |
| Function Principle | Polarized                                        |
| Notes              | On RL110 reflector ; 30m on RL201 , 5m on RL100D |
| Optic position     | Radial 90°                                       |

|                     |           |
|---------------------|-----------|
| Outputs             |           |
| Output type         | PNP NO+NC |
| Output Function     | NO+NC     |
| Switching frequency | 800Hz     |
| Response time       | 625μs     |

|                                |                                                                           |
|--------------------------------|---------------------------------------------------------------------------|
| Electrical data                |                                                                           |
| Operating Voltage              | 10...30VDC                                                                |
| No-Load supply current         | ≤ 30mA                                                                    |
| Load current                   | ≤100mA                                                                    |
| Leakage current                | ≤10μA                                                                     |
| Output voltage drop            | ≤2V@Iload=100mA                                                           |
| Max ripple content             | ≤10%                                                                      |
| LED indicators                 | Green power supply/yellow (LightON EG≥2)/yellow flashing (LightON 1<EG<2) |
| Time delay before availability | ≤200ms                                                                    |
| Short-circuit protection       | Short circuit (autoreset), Overvoltage                                    |

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Reverse Polarity Protection    | Polarity inversal, Impulsive voltage             |
| Emission                       | LASER Red (650nm) class1                         |
| Interference to external light | 3000lux (incandescent lamp), 10000lux (sunlight) |

Mechanical data

|                       |                                   |
|-----------------------|-----------------------------------|
| Dimensions            | M18 x 1/L=89,5mm                  |
| Housing material      | Nickel plated brass / PC plug     |
| Weight                | 70g                               |
| Connections           | M12 plug                          |
| Active Head Material  | Glass / PC                        |
| Tightening torque     | 25Nm                              |
| Operating temperature | - 15°C...+ 55° 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

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|                       |                                  |
|-----------------------|----------------------------------|
| Supplied Accessories  | nuts M18 x 1, screwdriver        |
| Generical Data        |                                  |
| Dimensions            | M18 x 1/L=89,5mm                 |
| Operating Temperature | - 15°C...+ 55°C (Without freeze) |
| Mechanical Protection | IP67                             |

# CONNECTIONS

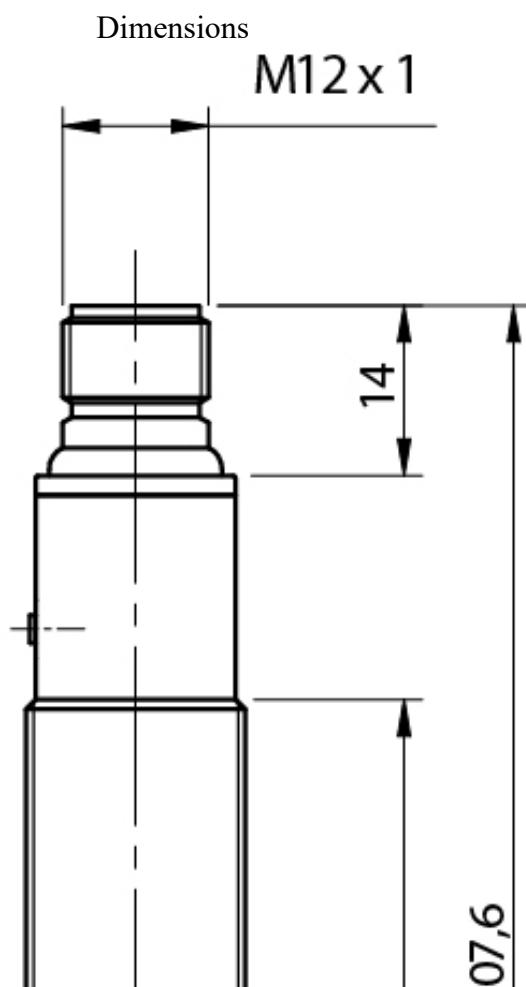
Eletrical diagram

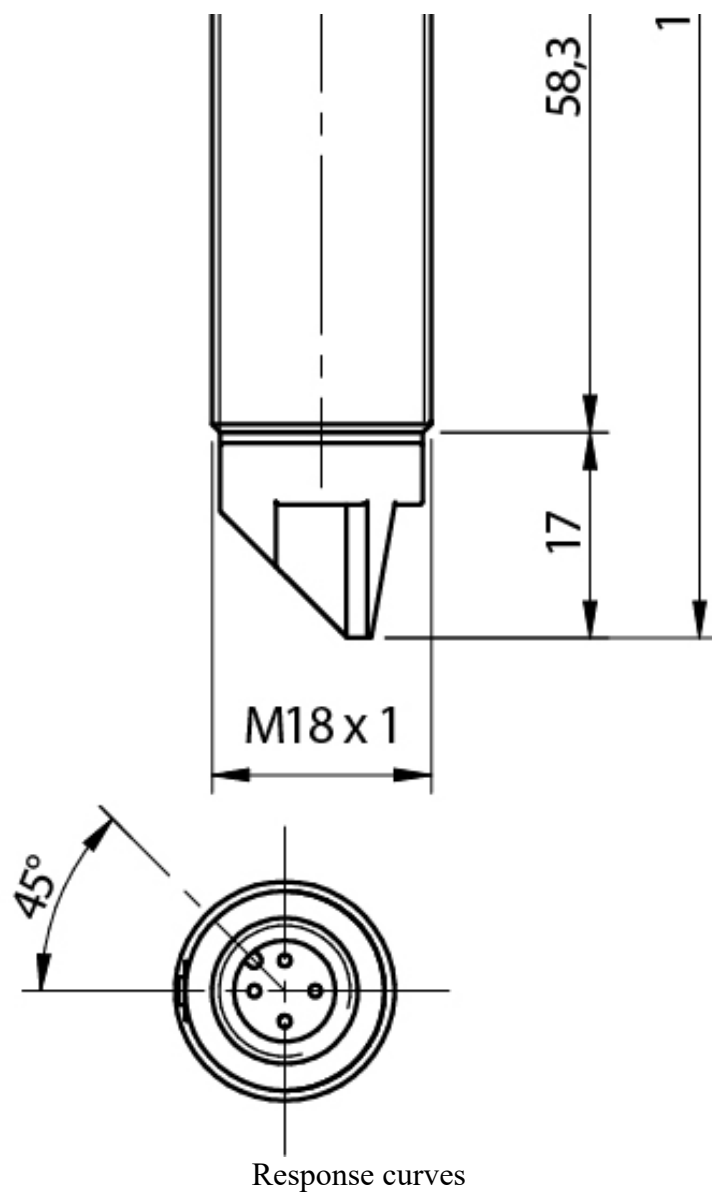


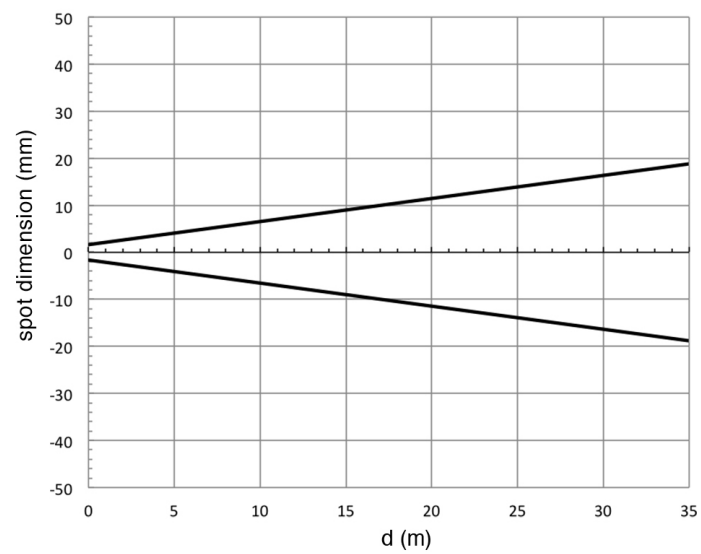
Connector



## OTHERS







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