



FAL

FAL4/BP-1E

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

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	300mm
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Thermal drift of Sr	≤10% Sr
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Repeat Accuracy	5%
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Sensitivity adjustment	Teach-in
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Application

Function Principle	Diffuse reflection (medium distance, $\leq 600\text{mm}$)
Notes	(Focalized 100mm) white target 90% Kodak 200x200mm
Optic position	Axial

Outputs

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

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	Green power supply/yellow (LightON $EG \geq 2$)/yellow flashing (LightON $1 < EG < 2$)
Time delay before availability	$\leq 200\text{ms}$
Short-circuit protection	Short circuit (autoreset), Overvoltage

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

Dimensions	M18 x 1 /L =97,6mm
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Housing material	Nickel plated brass / PC plug
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Weight	100g
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Connections	M12 plug
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Active Head Material	Glass / PC
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Tightening torque	25Nm
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Operating temperature	-15°C...+ 55°C (Without freeze)
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Diameter/Dimension	M18
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Test/Approvals

Approvals	CE cULus
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EMC compatibility	EN 60947-5-2
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Shocks and vibrations	Vibration IEC 60068-2-6 / Shock IEC 60068-2-27
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Degree of protection	IP67
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Accessories

Supplied Accessories

nuts M18 x 1, screwdriver

Generical Data

Dimensions

M18 x 1 /L =97,6mm

Operating Temperature

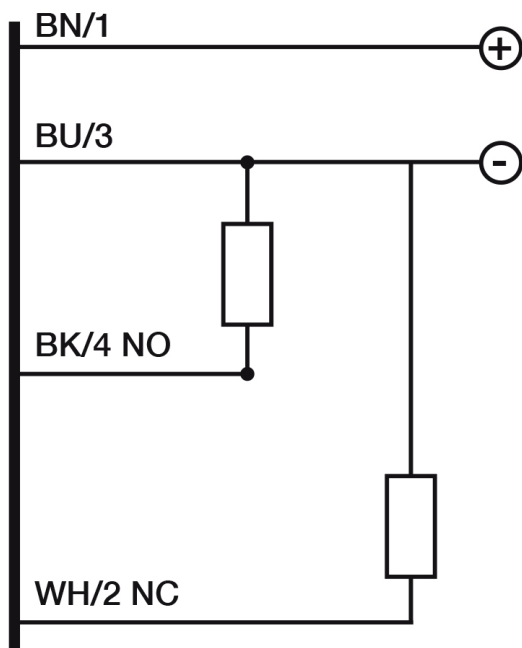
- 15°C...+ 55°C (Without freeze)

Mechanical Protection

IP67

CONNECTIONS

Electrical diagram

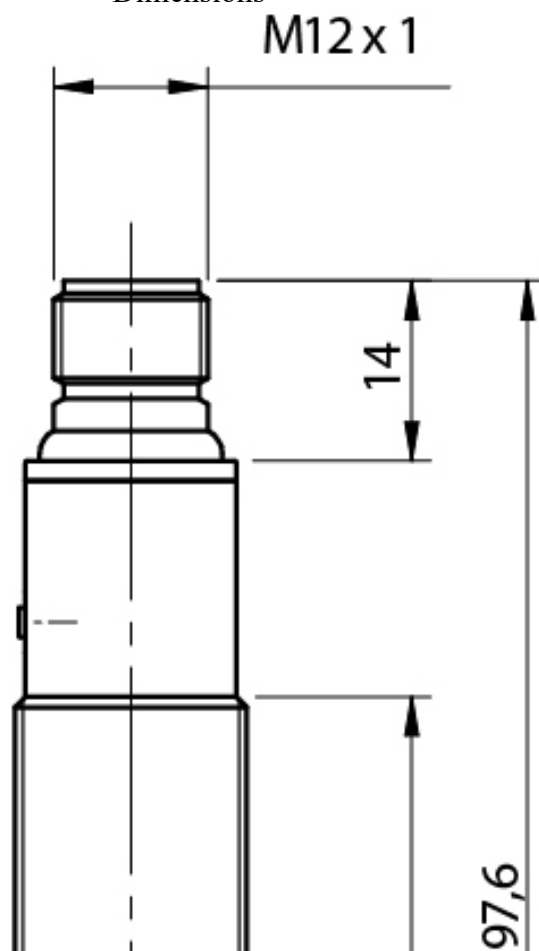


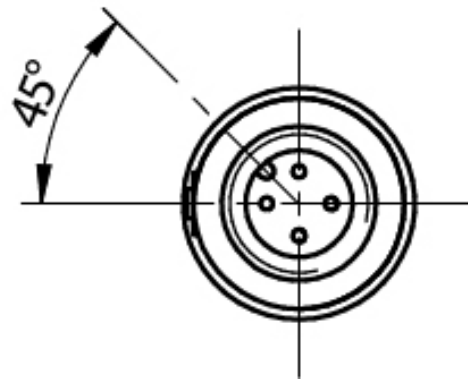
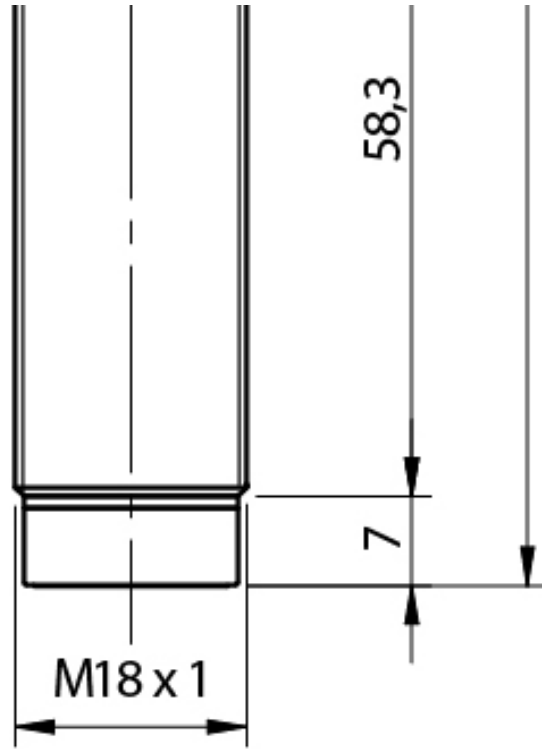
Connector



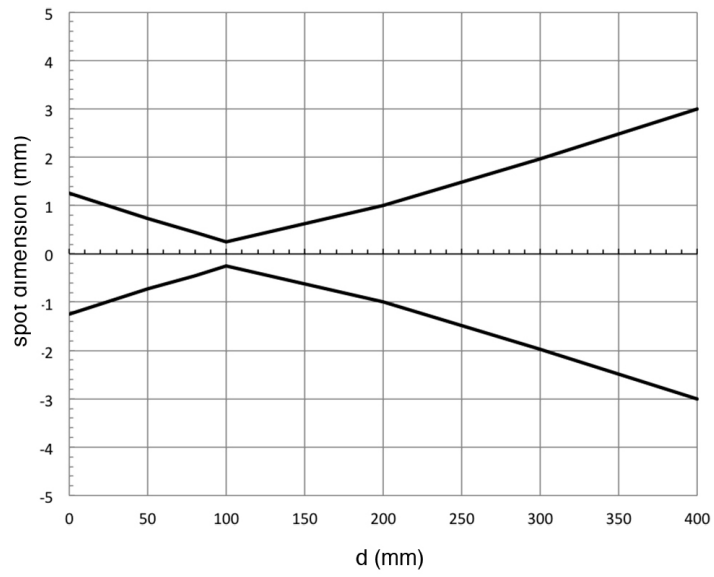
OTHERS

Dimensions





Response curves



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