



FAL

FAL4/BN-2E

**Photo.M18,Laser emiss.,NPN-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	200mm
--------------------------	-------

Thermal drift of Sr	≤10% Sr
---------------------	---------

Repeat Accuracy	5%
-----------------	----

Sensitivity adjustment	Teach-in
------------------------	----------

Application

Function Principle	Diffuse reflection (short distance, $\leq 200\text{mm}$)
--------------------	---

Notes	(focalized 100mm) white target 90% Kodak 200x200mm
-------	--

Optic position	Radial 90°
----------------	------------

Outputs

Output type	NPN 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 $E_G \geq 2$)/yellow flashing (LightON $1 < E_G < 2$)
----------------	--

Time delay before availability	$\leq 200\text{ms}$
--------------------------------	---------------------

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=107,6mm
Housing material	PBT / PC plug
Weight	30g
Connections	M12 plug
Active Head Material	Glass / PC
Tightening torque	1Nm
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

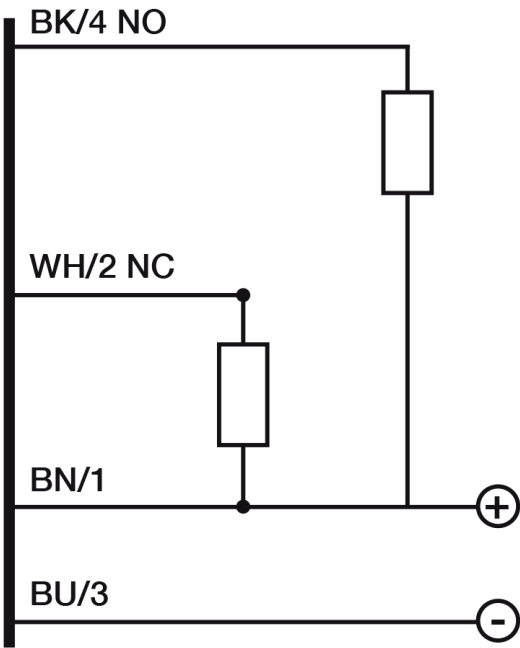
Accessories

||
||
||

Supplied Accessories	nuts M18 x 1, screwdriver
Generical Data	
Dimensions	M18 x 1/L=107,6mm
Operating Temperature	- 15°C...+ 55°C (Without freeze)
Mechanical Protection	IP67

CONNECTIONS

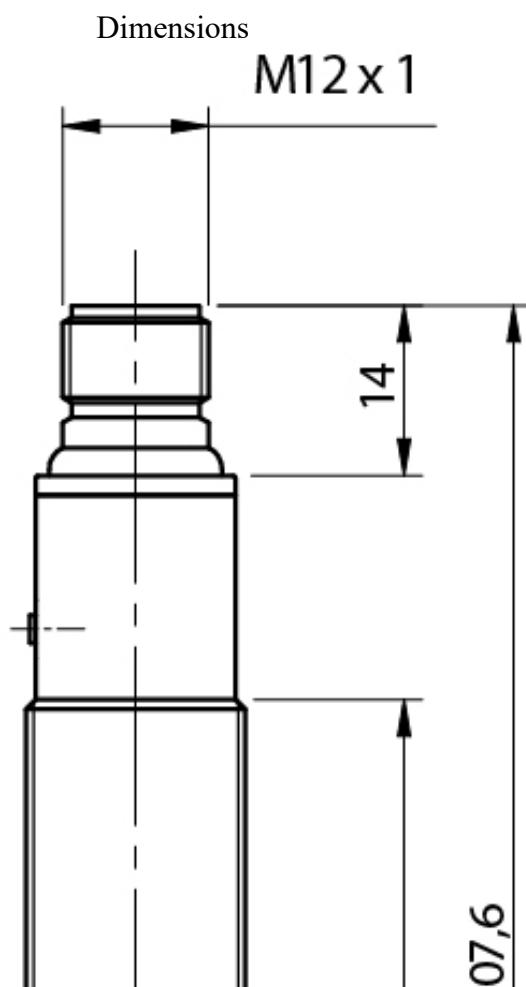
Eletrical diagram

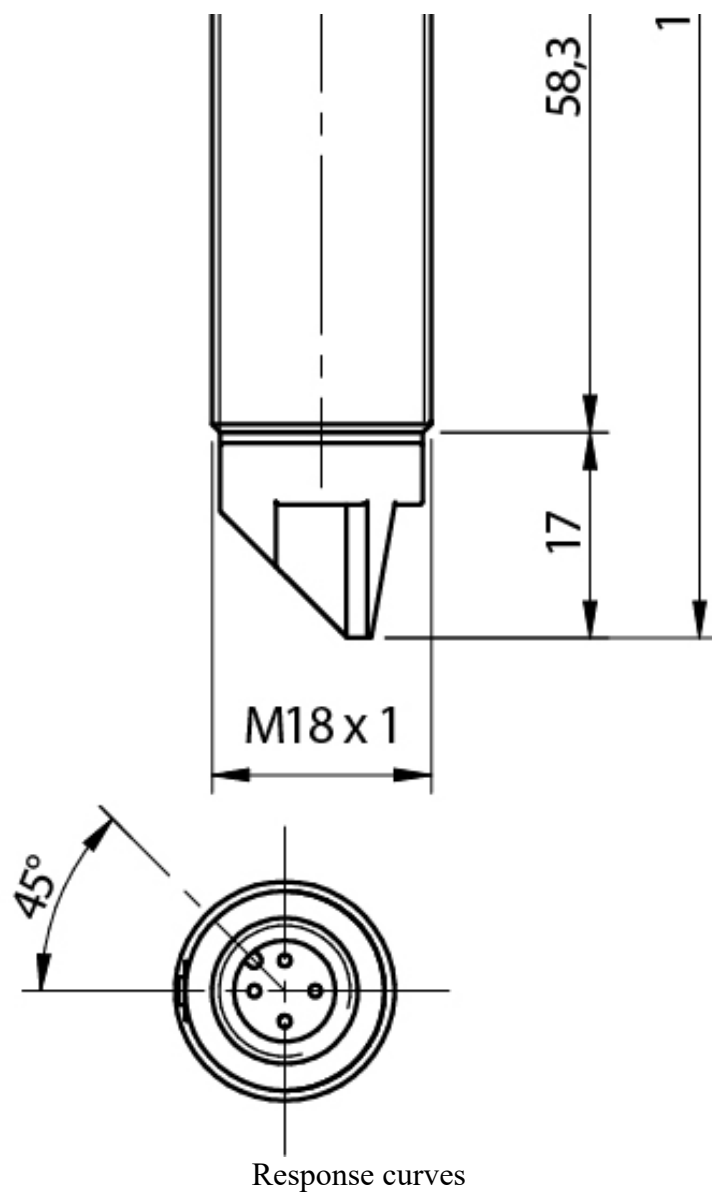


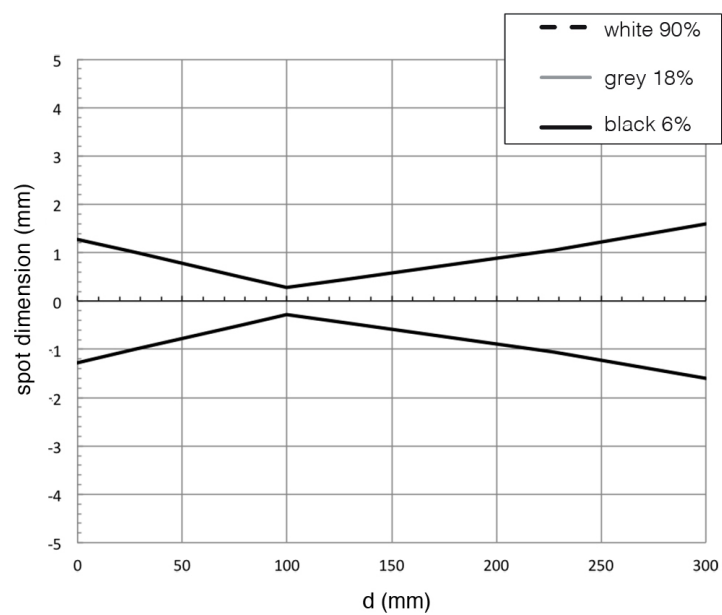
Connector



OTHERS







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**
10/08/2026
07:37:30