



Micro Detectors

Italian Sensors Technology



FAL BGS Cylindrical Photoelectric Sensor



Photoelectric Sensors Catalogue

Cod. CAT3EFA1477901

Catalogue FAL BGS - english - Ed.01/2014





Products

FAL BGS
cylindrical



Series **FAL BGS**

Cylindrical



www.microdetectors.com

Industries and applications

wood industry
packaging industry
automotive industry
pharmaceutic industry
micro mechanical industry



Main Features

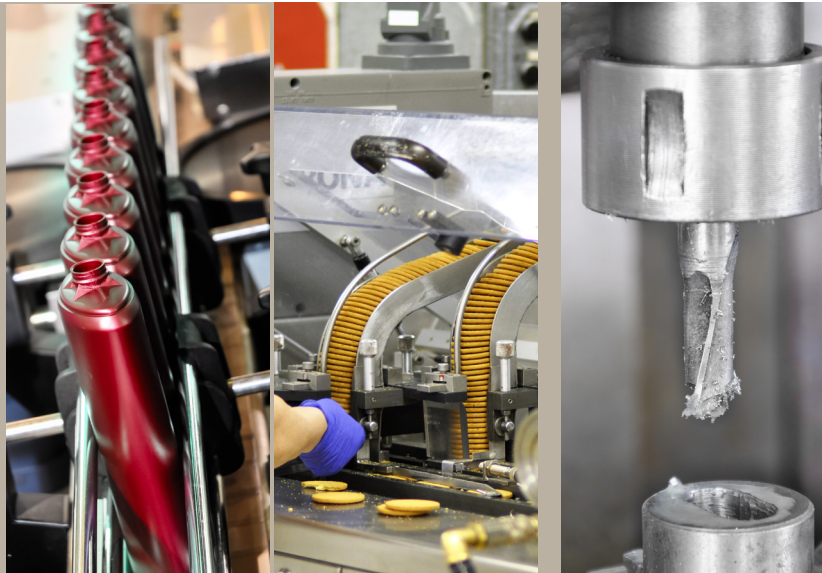
M18 Photoelectric sensor Background Suppression with Laser emission
Models in Class I and Class II Laser emission power
Axial and Right angle optical head
Sensing distance adjustment by trimmer
Collimated Light spot
Complete protection against electrical damages
Nichel brass housing
Laser marked

Certifications



Protection degree

IP67





Products

FAL BGS
cylindrical


FAL BGS Cylindrical Photoelectric Sensor

FAL photoelectric sensor M18 background suppression is available in four different models:

- FALS class 1 laser axial optical head with detecting distance from 30 to 100mm
- FALS class 1 laser right angle with detecting distance from 30 to 80 mm
- FALW class 2 laser axial optical head with detecting distance from 30 to 150mm
- FALW class 2 laser right angle optical head with detecting distance from 30 to 130mm (The ideal solution in case of reduced space application)

and two special models with "Anti reflex alarm".

The FAL bgs spot is more steady into the scanning adjustment range, due to the collimated optic beam. Robust metal housing. Adjustable sensibility by trimmer. Very high immunity at the external light.

Pack Content

Installation manual (English + Italian): CAT8BFG1260501

N° 2 nichel plated brass nuts (metal housing)

Further commercial and technical documents available

High resolution pictures

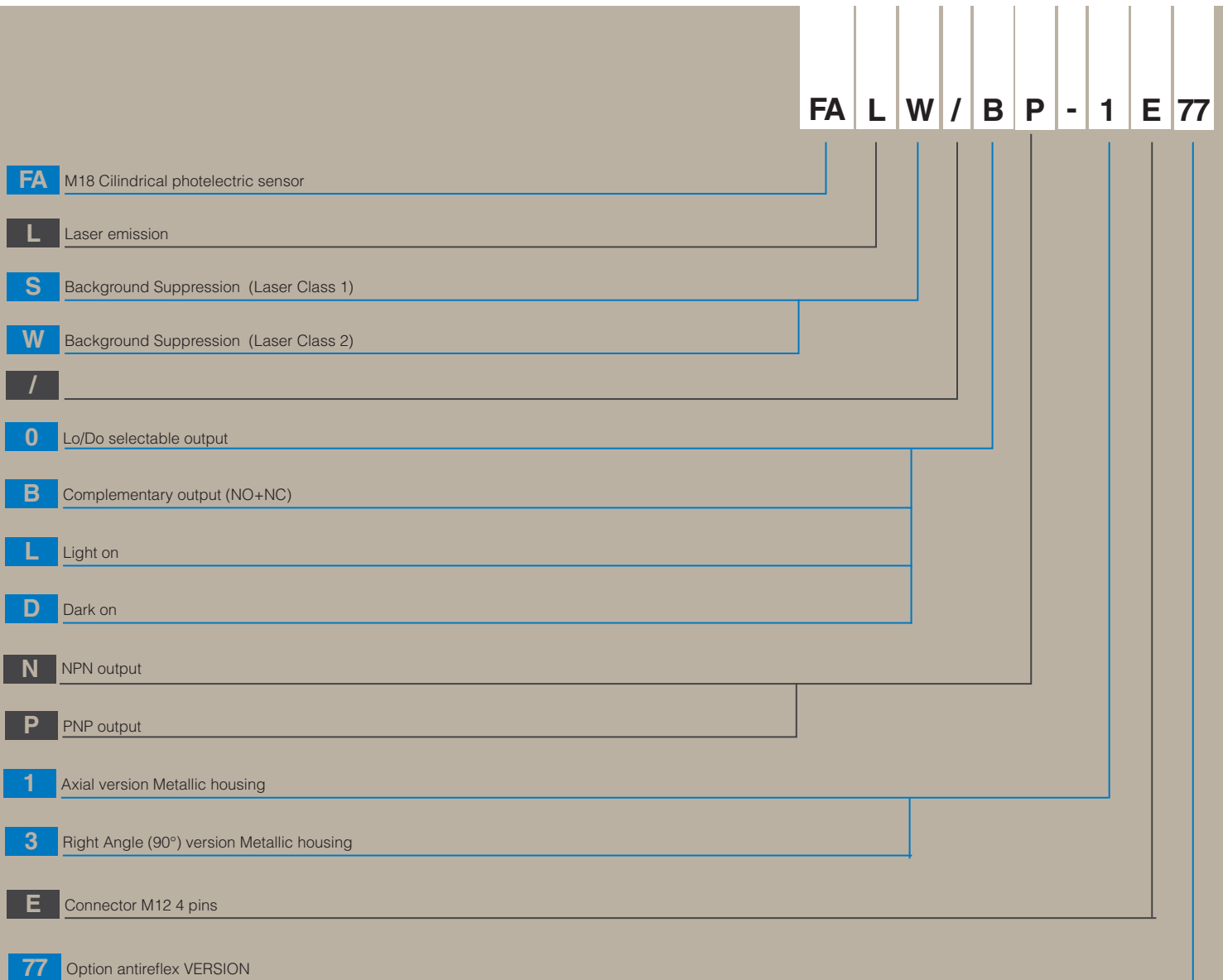
Customization already tested

-

Minimum quantity that can be ordered

1 pcs

Code description



Available models

model	distance	laser class	optical	Output selectable (Lo/Do)		Complementary output (NO+NC)	
				NPN	PNP	NPN	PNP
Background suppression	30...100 mm	1	Axial	FALS/0N-1E	FALS/0P-1E	FALS/BN-1E	FALS/BP-1E
	30...80 mm	1	Right Angle	FALS/0N-3E	FALS/0P-3E	FALS/BN-3E	FALS/BP-3E
	30...150 mm	2	Axial	FALW/0N-1E	FALW/0P-1E	FALW/BN-1E	FALW/BP-1E
	30...130 mm	2	Right Angle	FALW/0N-3E	FALW/0P-3E	FALW/BN-3E	FALW/BP-3E
	30...120 mm	2	Axial	-	-	FALW/BN-1E77	FALW/BP-1E77
	30...100 mm	2	Right Angle	-	-	FALW/BN-3E77	FALW/BP-3E77





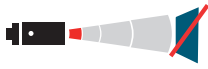
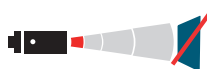
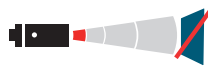
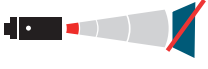


Products

FAL BGS
cylindrical

Specifications

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

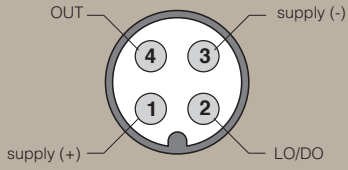
				
models	FALS/**-** Axial	FALS/**-** Right Angle	FALW/**-** Axial	FALW/**-** Right Angle
				
Nominal sensing distance (Sn)	25 ÷ 100 mm	25 ÷ 80 mm	25 ÷ 150 mm	25 ÷ 130 mm
Sensing range (Sd)	30 ÷ 100 mm	30 ÷ 80 mm	30 ÷ 150 mm	30 ÷ 130 mm
Emission	Red laser diode (650nm)			
Laser Protection Class EN60852-1	1	1	2	2
Adjustment	By trimmer (270° Turn)			
Differential travel	10%			
Repeat accuracy	10%			
Operating Voltage	10...30 Vdc			
Ripple	< 10%			
No -Load current	< 40 mA			
Output current	100 mA			
Leakage current	≤ 10 µA (Vdc max)			
Output voltage drop	2 V max. (II=100 mA)			
Output type	NPN or PNP NO+NC or LO/DO selectable			
Switching frequency	1,5 kHz			
Time delay before availability	250 ms			
Supply electrical protections	Polarity reversal, transient			
Output electrical protections	Short circuit (auto reset), over voltage pulses			
Temperature range	-10°...+50° C			
Interference to external light	15000 lux incandescent lamp			
Thermal Drift	10% Sn			
Led indicator	Yellow (output state); Red (77 special version: warning shiny object)			
Max. Capacitive Load	500 nF			
Protection Degree	IP67 (EN60529)			
Housing material	Nichel Plated Brass			
Optical head	PMMA			
Exit plug	Grilamid (PA12)			
Weight	35 g			
Tightening torque	40 Nm (metallic housing)			

BN	brown
BU	blue
BK	black
WH	white

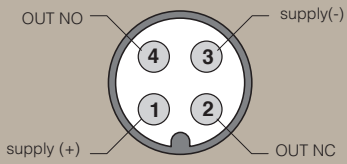
Electric diagrams of the connections

M12

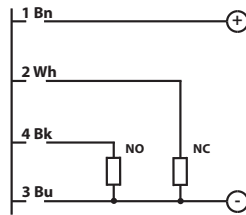
FAL*0*~**



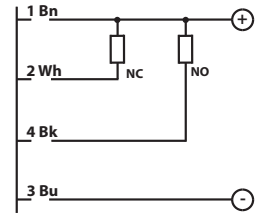
FAL*B*~**



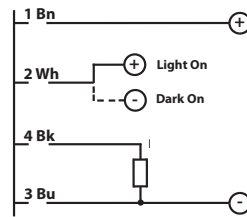
PNP output complementary NO +NC



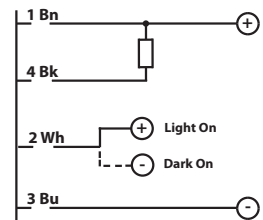
NPN output complementary NO +NC



PNP output selectable Lo /Do



NPN output selectable Lo /Do



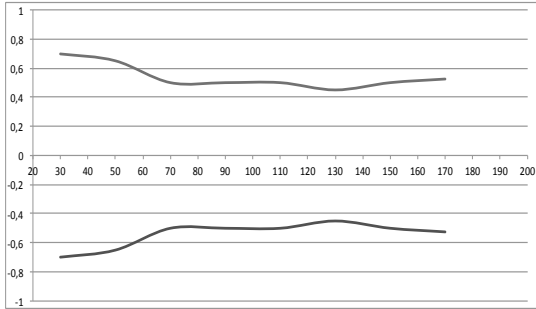


Products

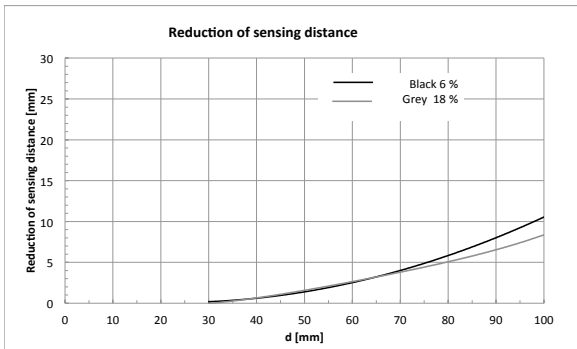
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Response diagram

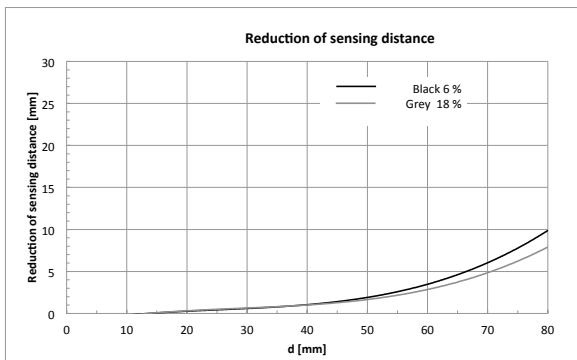
FAL BGS (spot diameter)



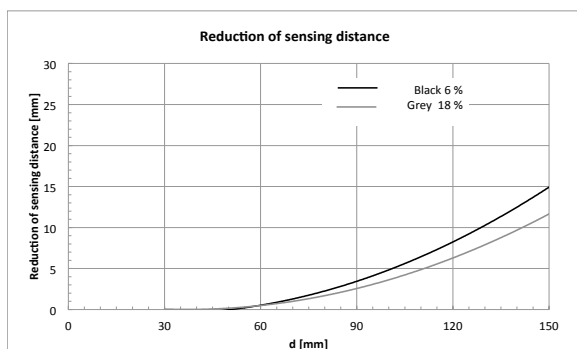
FALS/**-1* (axial optical head, laser class 1)

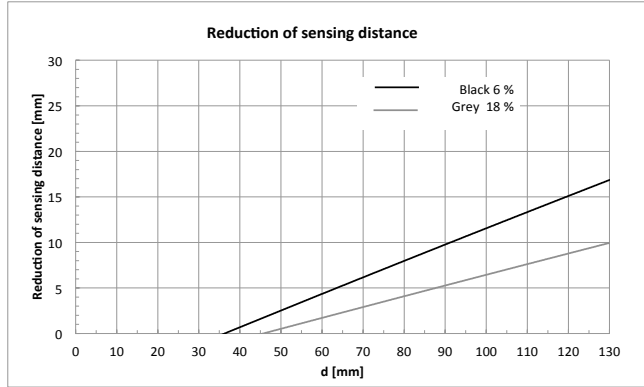


FALS/**-3* (axial optical head, laser class 1)



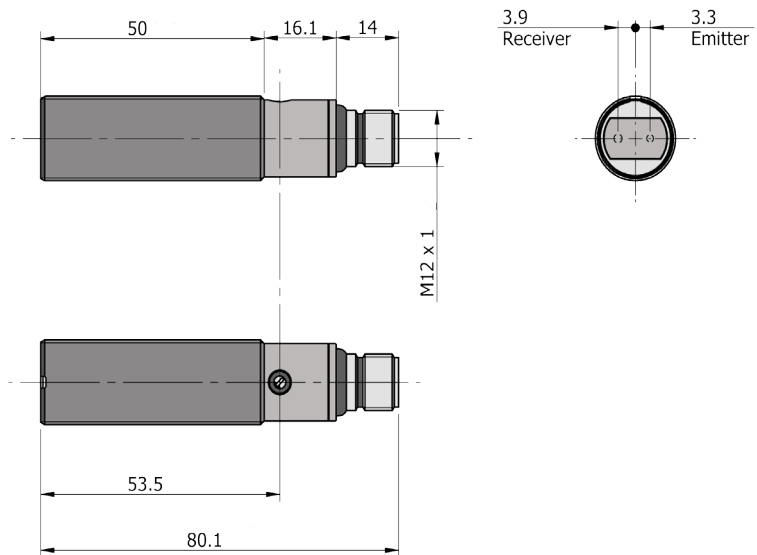
FALW/**-1* (axial optical head, laser class 2)



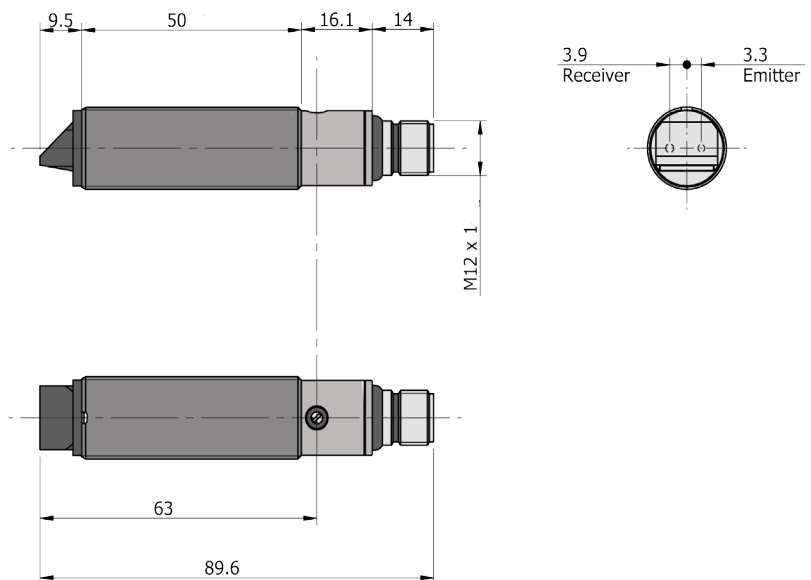


Dimensions

Axial optic



Right angle optic





Catalogue
Photoelectric Sensors



CAT3EFA14779018 CATALOGUE CYLINDRICAL PHOTOELECTRIC SENSOR FAL BGS ENG ED.01/2014

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