



# FARS series

M18 direct diffuse with adjustable background suppression



## features

- 30...130 mm adjustable max reading distance
- Cable or M12 plastic plug versions
- Supply voltage 10...30 Vdc, output current 100 mA
- LED light status indicator
- IP67 protection degree
- Complete protection against electrical damages
- ATEX models, cat.3, available on request
- Approvals: CE and cULus Listed



## web contents



- Application notes
- Photos
- Catalogue / Manuals



M18 direct diffuse

## code description(\*)

FARS / B P - 0 A

series	<b>FARS</b>	M18 photoelectric sensor with adjustable 30...130 mm
NO/NC	<b>B</b>	4 wires output complementary NO and NC
output	<b>P</b>	PNP output
	<b>N</b>	NPN output
housing	<b>0</b>	Plastic housing axial optic
	<b>1</b>	Metal housing axial optic
cable/ plug	<b>A</b>	Axial cable output 2 m
	<b>E</b>	Axial M12 plastic plug output


(\*) ATEX models available, contact our Sales Dept. for further information.

## available models

function	distance	housing	4 wires NO + NC PNP		4 wires NO + NC NPN	
			cable	plug	cable	plug
background suppression	30...130 mm	axial plastic	FARS/BP-0A	FARS/BP-0E	FARS/BN-0A	FARS/BN-0E
		axial metallic metallic	FARS/BP-1A	FARS/BP-1E	FARS/BN-1A	FARS/BN-1E
	60...100		-	FARS/BP-1E7712	-	FARS/BN-1E7712

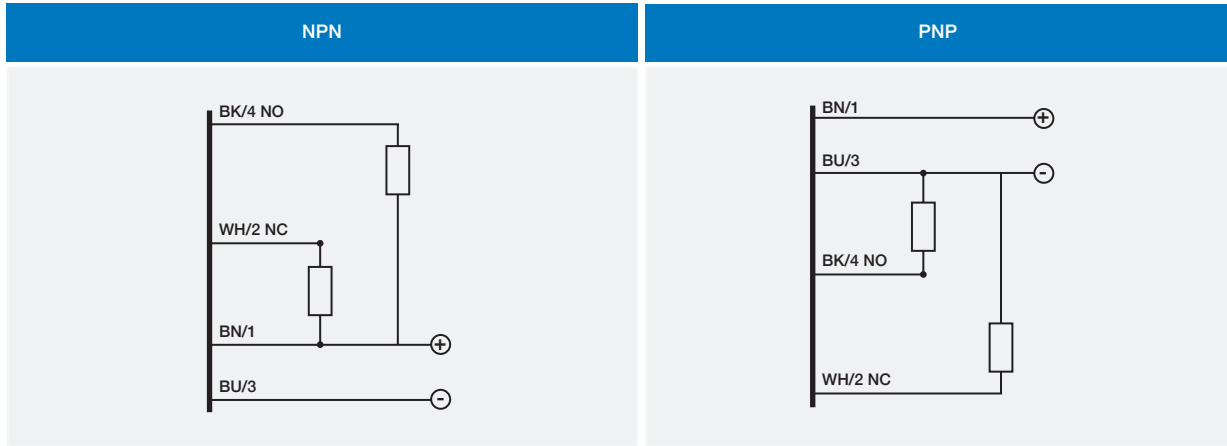
FARS



FARS/**-**	
	
nominal sensing distance	30...130 mm
scanning adjustable range Sd	30...130 mm (white paper)
emission	red light (660 nm)
hysteresis	≤ 10 %
repeatability	10 %
operating voltage	10...30 Vcc
ripple	≤ 10 %
no-load supply current	25 mA
load current	100 mA
leakage current	≤ 10 µA (@ 30 Vcc)
output voltage drop	2 V max. IL = 100 mA
output type	NPN o PNP; NO + NC or LO/DO selectable
switching frequency	1 kHz
power on delay	200 ms
power supply protections	short circuit (auto reset)
operating temperature range	- 25°C...+ 70°C (without freeze)
temperature drift	≤ 10 % Sd (≤ 3 % Sd per Sd 60...110 mm)
distance adjustment	potentiometer
protection degree	IP67 (EN60529) <sup>(1)</sup>
EMC	in conformity with the EMC Directive according to EN 60947-5-2
external light interference	5,000 lux (incandescence lamp), 10,000 lux (sunlight)
LEDs	yellow / light status / short circuit / internal error
cable exit	PVC 4x0, 34 mmq; Ø 4,7 mm; 2m
plug exit	M12 4 pins, male
housing material	PBT (plastic) / nicked plated brass (metallic) / PC (cable exit and plug)
optic material	plastic
tightening torque	25 Nm (metallic)
weight (approximate)	plastic version: 30 g connector / 50 g cable metallic version: 100 g connector / 130 g cable
yellow LED status	sensor status
ON	light status
OFF	dark status
flashing slowly	output short circuit detected
flashing 3 of 10	internal error

<sup>(1)</sup> Protection guaranteed only with plug cable well mounted

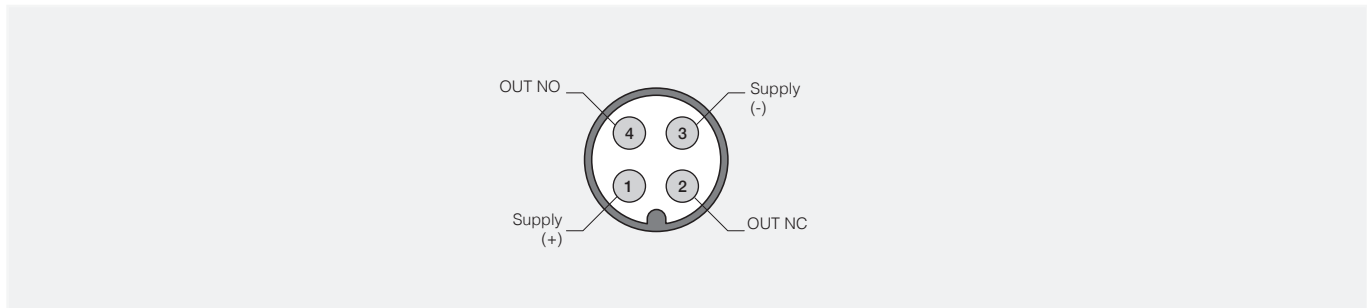
# electrical diagrams of the connections



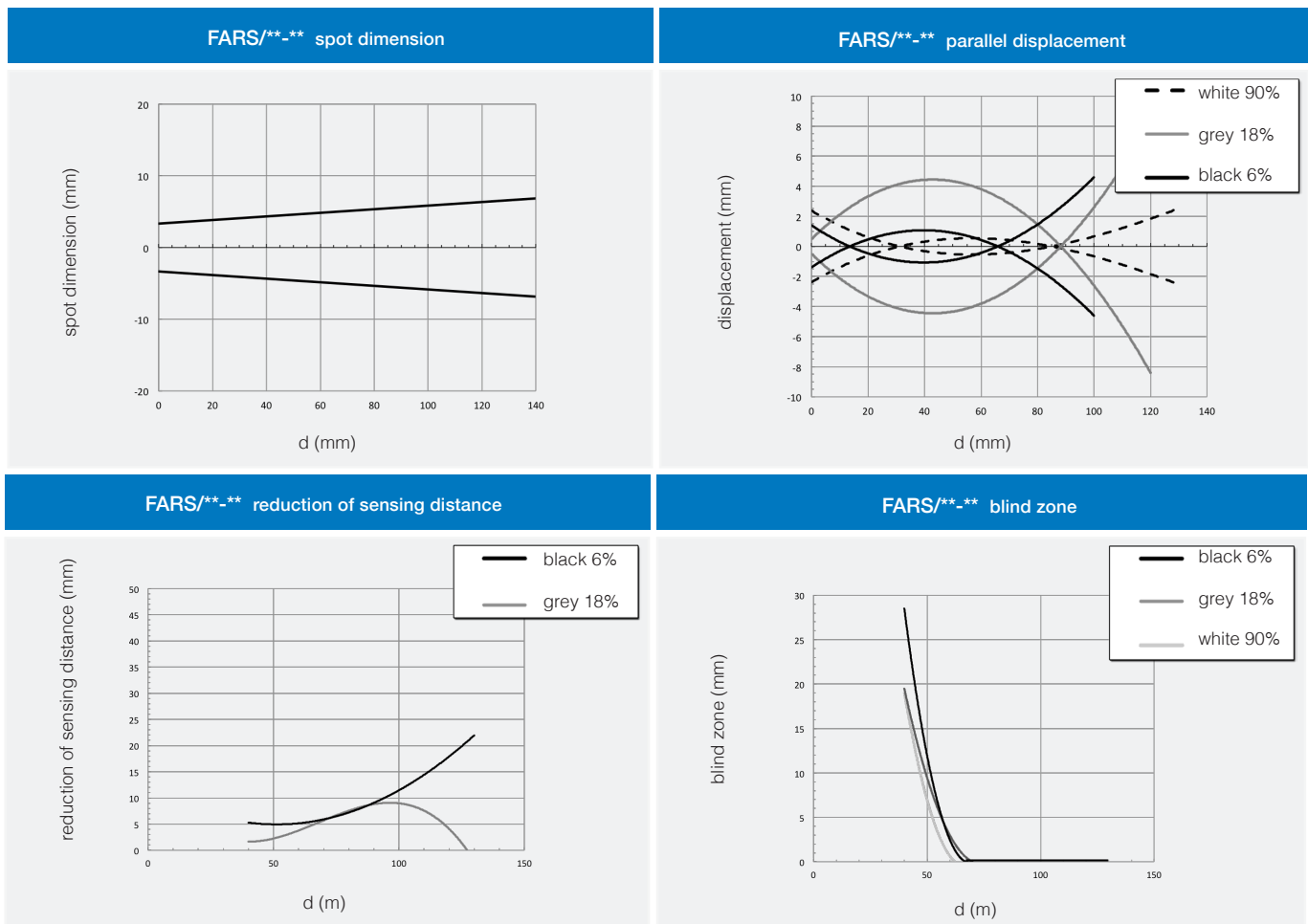
- BN brown
- BU blue
- BK black
- WH white
- PK pink
- GY gray

## plug

### M12 4 wires output complementary NO and NC



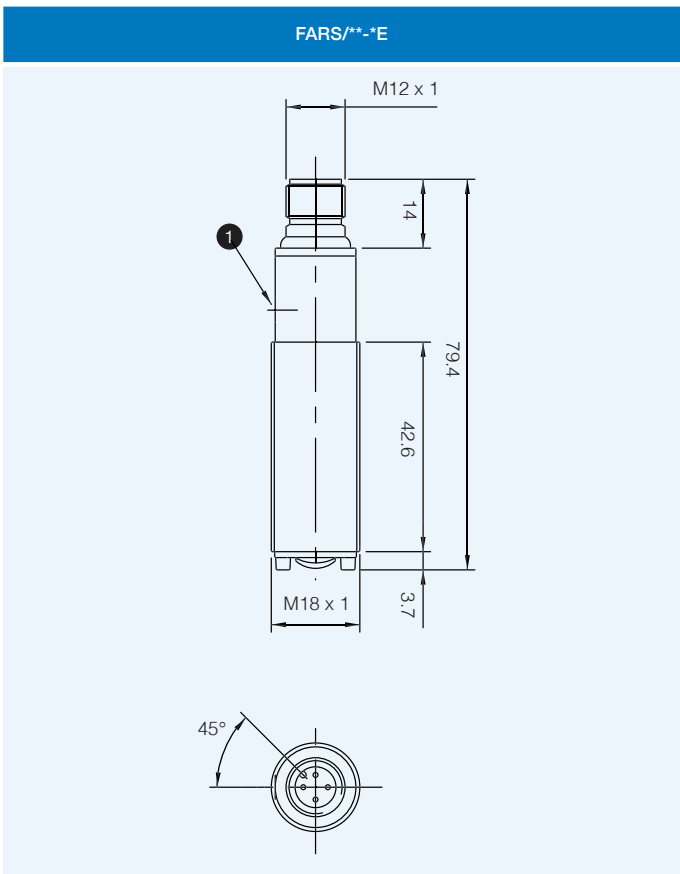
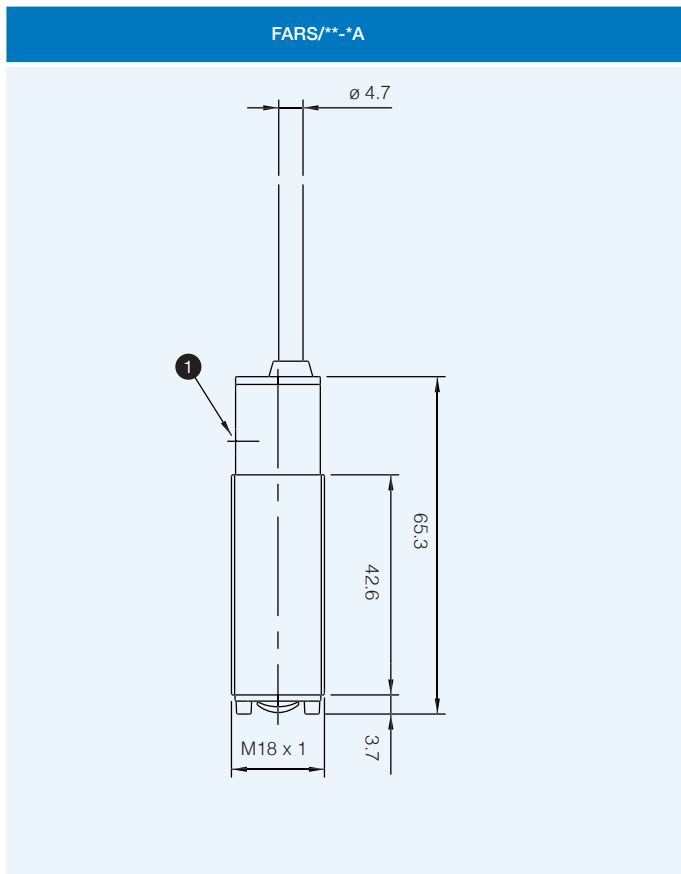
## response diagram





# dimensions (mm)

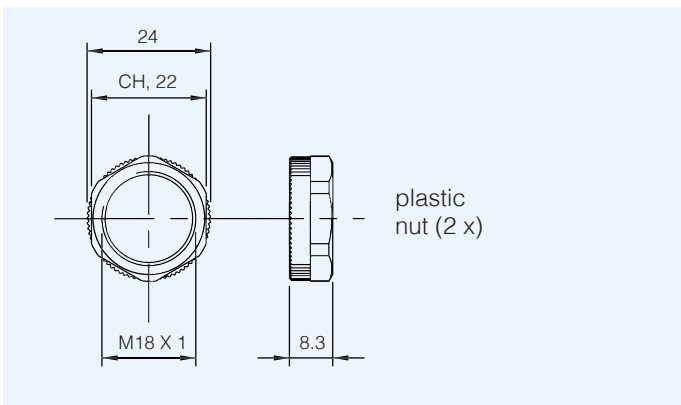
M18 direct diffuse



1 potentiometer for sensitivity adjustment

## dimensions (mm)

accessories included in all plastic models



## dimensions (mm)

accessories included in all metallic models

