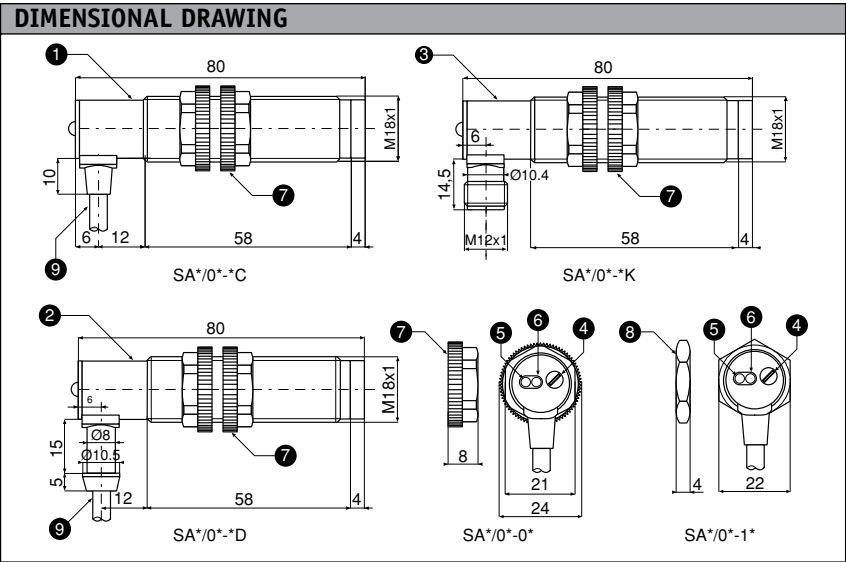


2.1



M18 photoelectric sensors with high performances - DC

- ◆ Wide range of models: diffuse, retro-reflective, polarized and fixed-focus
- ◆ All models are available with sensitivity adjustment trimmer
- ◆ High sensing distance
- ◆ Double LED indicator (ON/OFF - supply)
- ◆ 3 cable exit options to suit any installation
- ◆ M12 right angle plug exit (also available with metal housing)
- ◆ NO/NC selectable output
- ◆ IP65 protection degree
- ◆ Complete protection against electrical damage
- ◆ Wide range of connectors, accessories and reflectors available



Key	
1 Right angle cable exit	7 Tightening nut plastic housing
2 Right angle cable exit with tang ⁽¹⁾	8 Tightening nut metal housing
3 M12 right angle plug cable exit	9 Cable 4x0,34 mm ² , Ø4,7mm, PVC, 2m
4 Sensitivity adjustment trimmer (1 turn)	Connectors CD serie
5 Yellow LED (output state indicator ON/OFF)	Accessories ST serie
6 Green LED (supply)	

(1) Available only on request



Plastic or metal housings

Photoelectric sensors with high performances

The SA serie represents a new concept of sensors, realised with the most popular standard M18 housing it offers extremely sophisticated performances in line with highest quality products.



Double LED

Yellow: output state indicator
Green: supply indicator

Sensitivity trimmer

Available on all models for a precise and accurate detection.

NO/NC selectable output

For stocking costs reduction each model is provided with NO/NC selectable output.

Exclusive fixed-focus models for precise detection (min. objet Ø 50µm)

SAT models allow incredible performances. The exclusive fixed-focus system grant detection of very small objects apart from the colour. Red light with punctiform spot for accurate pointing.



2.1

Models with polarizing filter

The polarizing filter is available for application with retro-reflective models and reflecting objects.

High switching frequency (1Khz)

For detecting objects moving at the highest speed.

The highest sensing distance available on the market

Up to 1m for diffuse reflection models and 6m for retro-reflective models, SA serie offers the highest sensing distance for M18 photoelectric sensors available on the market.

Exclusive right-angle exit

All models of SA serie have this patented exit which reduces the overall dimensions and gives better protection to the cable against accidental tearings. Also available with M12 standard plug-in exit.



ORDERING SYSTEM

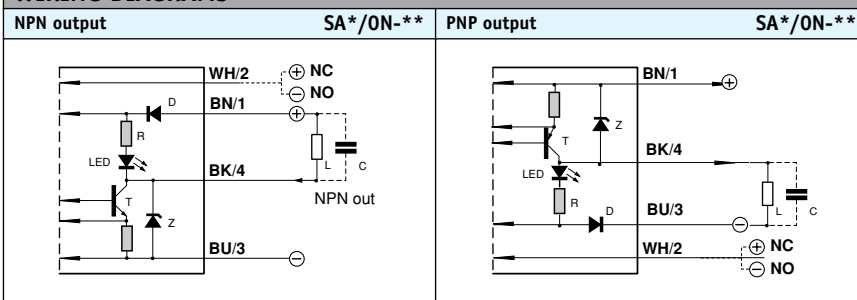
		S A 2 / 0 N - 0 C			diffuse - retro-reflective - fixed-focus		
serie	M18 photoelectric sensor with high performance	SA					cable exit
model	150mm diffuse reflection	2			C		right angle cable exit
	400mm diffuse reflection	6			D		(1) right angle cable exit with tang
	1000mm diffuse reflection	8			K		M12 right angle plug cable exit
	6m retro-reflective	C					housing
	3m polarized retro-reflective	P			0		plastic housing
	diffuse reflection fixed-focus	T			1		metal housing
output state	NO/NC selectable	0			N		output type
					P		PNP output

(1) Available only on request.

SPECIFICATIONS

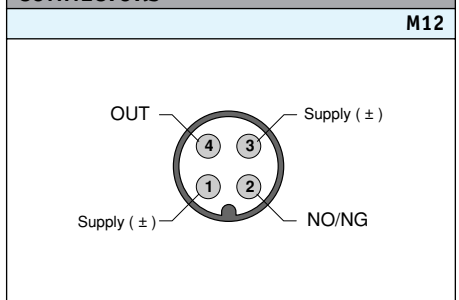
Model	SA2/0*-*	SA6/0*-*	SA8/0*-*	SAC/0*-*	SAP/0*-*	SAT/0*-*		
Type	diffuse reflection			retro-reflective		fixed-focus		
	standard			standard	polarized	with STF-12	with STF-25	with STF-50
Nominal sensing distance (Sn)	150mm (1)	400mm (1)	1000mm (2)	6m (3)	3m (3)	12mm	25mm	50mm
Emission	infrared (880nm)				red (660nm)			
Tolerance	+15/ -5% Sn							
Differential travel	≤10%							
Repeat accuracy	5%							
Operating voltage	10 - 30 Vdc							
Ripple	≤10 %							
No-load supply current	30mA	35mA	30mA	35mA	30mA			
Load current	≤100 mA							
Leakage current	≤ 10μA							
Voltage drop	1,2V max. I _L =100mA							
Output type	NPN or PNP, NO/NC selectable							
Switching frequency	1KHz max.							
Time delay before availability	200 ms							
Supply electrical protections	polarity reversal, transient							
Output electrical protections	short circuit (autoreset)							
Temperature range	-25°....+70°C (without freeze)				-25°....+60°C	-25°....+70°C (without freeze)		
Temperature drift	≤10% Sr							
Interference to external light	3000 lux (incandescent lamp), 10000 lux (sunlight)							
Protection degree (DIN 40 050)	IEC IP65							
LED indicators	yellow (output energized), green (supply)							
Housing material	PBT (plastic housing), nickel-plated brass (metal housing), nylon (cable exit)							
Lenses material	plexiglas 7N					glass (STF-*)		
Tightening torque	40Nm (metal housing)							
Weight (approx.)	80-85g							

(1) with 100x100mm white matt paper; (2) with 100x100mm white matt paper; (3) with standard reflector Ø80mm (RL110 supplied separately).

WIRING DIAGRAMS


In case of combined load, resistive and capacitive, the maximum admissible capacity C is 0,2μF, for maximum load voltage and current.

Indications **NO** and **NC** are referred to the **diffuse reflection** sensors (on target absence). For **retro-reflective** models the indication **NO** to be replaced by **NC** and **NC** becomes **NO**.

CONNECTORS


CHARACTERISTIC CURVES

<p>SA2</p> <p>Excess gain</p>	<p>SA2</p> <p>Parallel displacement</p>	<p>SA2</p> <p>Distance / target size</p>	<p>SA6</p> <p>Excess gain</p>
<p>SA6</p> <p>Parallel displacement</p>	<p>SA6</p> <p>Distance / target size</p>	<p>SA8</p> <p>Excess gain</p>	<p>SA8</p> <p>Parallel displacement</p>
<p>SA8</p> <p>Distance / target size</p>	<p>SAC</p> <p>Excess gain</p>	<p>SAC</p> <p>Parallel displacement</p>	<p>SAP</p> <p>Excess gain</p>
<p>SAP</p> <p>Parallel displacement</p>	<p>SAT+STF-12</p> <p>Excess gain</p>	<p>SAT+STF-12</p> <p>Parallel displacement</p>	<p>SAT+STF-12</p> <p>Detection area</p>
<p>SAT+STF-25</p> <p>Excess gain</p>	<p>SAT+STF-25</p> <p>Parallel displacement</p>	<p>SAT+STF-25</p> <p>Detection area</p>	<p>SAT+STF-50</p> <p>Excess gain</p>
<p>SAT+STF-50</p> <p>Parallel displacement</p>	<p>SAT+STF-50</p> <p>Detection area</p>		

2.1