

Fotocellule M18 ad alte prestazioni DC serie SA

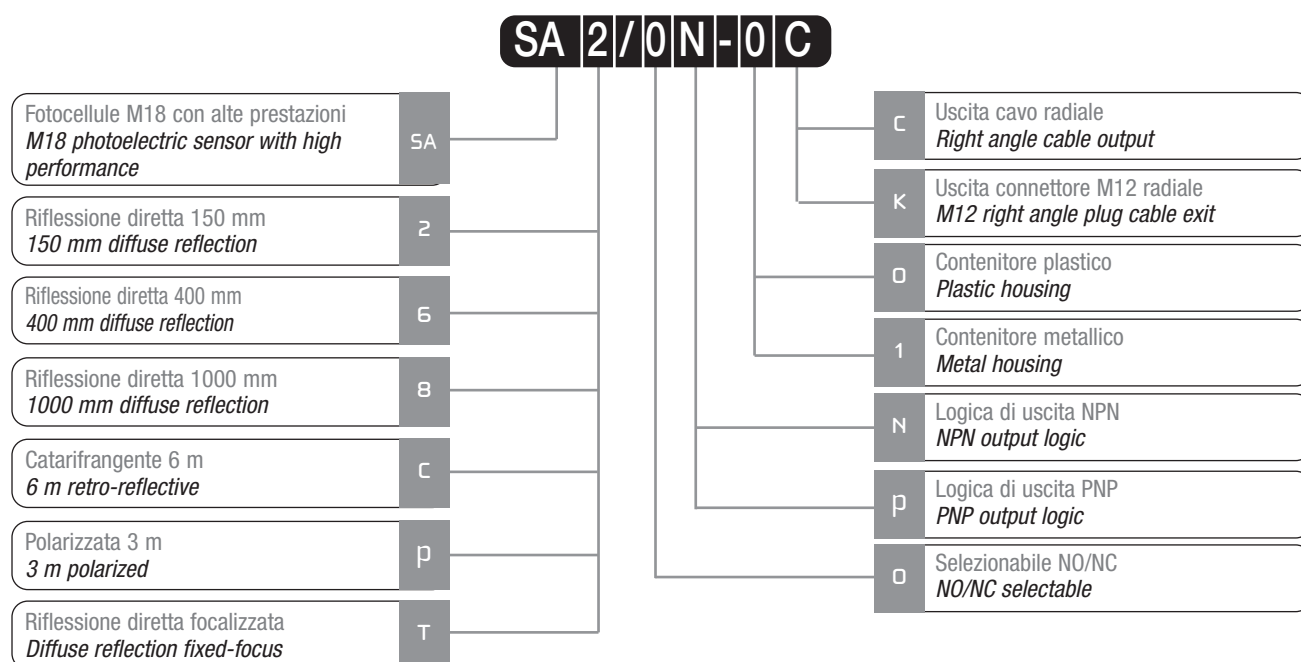
M18 photoelectric sensors with high performances - DC SA series



Caratteristiche principali Main features

- > Vasta gamma di modelli: riflessione diretta, catarifrangente, polarizzata e focalizzata
- > *Wide range of models: diffuse, retro-reflective, polarized and fixed-focus*
- > Tutti i modelli sono disponibili con regolazione della sensibilità
- > *All models are available with sensitivity adjustment trimmer*
- > Doppio LED di indicazione (ON/OFF - aliment.)
- > *Double LED indicator (ON/OFF - supply)*
- > Uscita selezionabile NO/NC
- > *NO/NC selectable output*
- > Grado di protezione IP65
- > *IP65 protection degree*
- > Totalmente protetto contro danneggiamenti di tipo elettrico
- > *Complete protection against electrical damage*
- > Vasta gamma di connettori, accessori e catarifrangenti
- > *Wide range of plugs, accessories and reflectors available*
- > Approvazioni: CE
- > *Approvals: CE*

Descrizione del codice - Code structure



Modelli disponibili - Available models

Uscita Output	Funzione Model	Portata Distance	Modelli plastici Plastic models		Modelli metallici Metal models	
			PNP NO/NC	NPN NO/NC	PNP NO/NC	NPN NO/NC
Cavo radiale Right angle cable	Tasteggio diretto / <i>Diffuse reflection</i>	150 mm	SA2/OP-0C	SA2/ON-0C	SA2/OP-1C	SA2/ON-1C
		400 mm	SA6/OP-0C	SA6/ON-0C	SA6/OP-1C	SA6/ON-1C
		1000 mm	SA8/OP-0C	SA8/ON-0C	SA8/OP-1C	SA8/ON-1C
	Catarifrangente / <i>Retro-reflective</i>	6 m	SAC/OP-0C	SAC/ON-0C	SAC/OP-1C	SAC/ON-1C
	Polarizzata / <i>Polarized</i>	3 m	SAP/OP-0C	SAP/ON-0C	SAP/OP-1C	SAP/ON-1C
	Focalizzata con / <i>Focalized with</i> STF-12	12 mm	SAT/OP-0C	SAT/ON-0C	SAT/OP-1C	SAT/ON-1C
	Focalizzata con / <i>Focalized with</i> STF-25	25 mm				
	Focalizzata con / <i>Focalized with</i> STF-50	50 mm				
Connettore M12 radiale M12 right angle plug	Tasteggio diretto <i>Diffuse reflection</i>	150 mm	SA2/OP-0K	SA2/ON-0K	SA2/OP-1K	SA2/ON-1K
		400 mm	SA6/OP-0K	SA6/ON-0K	SA6/OP-1K	SA6/ON-1K
		1000 mm	SA8/OP-0K	SA8/ON-0K	SA8/OP-1K	SA8/ON-1K
	Catarifrangente / <i>Retro-reflective</i>	6 m	SAC/OP-0K	SAC/ON-0K	SAC/OP-1K	SAC/ON-1K
	Polarizzata / <i>Polarized</i>	3 m	SAP/OP-0K	SAP/ON-0K	SAP/OP-1K	SAP/ON-1K
	Focalizzata con / <i>Focalized with</i> STF-12	12 mm	SAT/OP-0K	SAT/ON-0K	SAT/OP-1K	SAT/ON-1K
	Focalizzata con / <i>Focalized with</i> STF-25	25 mm				
	Focalizzata con / <i>Focalized with</i> STF-50	50 mm				

Specifiche (In accordo con IEC EN 60947-5-2) - Specifications (According to IEC EN 60947-5-2)

Modello / <i>Model</i>	SA2/0*..**	SA6/0*..**	SA8/0*..**	SAC/0*..**	SAP/0*..**	SAT/0*..**		
Tipo Type	Riflessione diretta <i>Diffuse reflection</i>			Catarifrangente <i>Retro-reflective</i>		Focalizzata <i>Fixed-focus</i>		
	Standard			Standard	Polarizzata <i>Polarized</i>	Con STF-12 <i>With STF-12</i>	Con STF-25 <i>With STF-25</i>	Con STF-50 <i>With STF-50</i>
Distanza di rilevazione nominale <i>Nominal sensing distance(Sn)</i>	150 mm ⁽¹⁾	400 mm ⁽¹⁾	1000 mm ⁽²⁾	6 m ⁽³⁾	3 m ⁽³⁾	12 mm	25 mm	50 mm
Emissione / <i>Emission</i>	Infrarosso / <i>Infrared</i> (880nm)				Rosso / <i>Red</i> (660nm)			
Tolleranza / <i>Tolerance</i>	+15/ -5% Sn							
Corsa differenziale <i>Differential travel</i>	≤ 10%							
Ripetibilità / <i>Repeat accuracy</i>	5%							
Tensione di alimentazione <i>Operating voltage</i>	10 - 30 Vdc							
Ondulazione residua / <i>Ripple</i>	≤ 10 %							
Corrente assorbita <i>No-load supply current</i>	30 mA	35 mA	30 mA	35 mA	30 mA			
Corrente di uscita / <i>Load current</i>	≤ 100 mA							
Corrente di perdita <i>Leakage current</i>	≤ 10 µA							
Caduta di tensione in uscita <i>Voltage drop</i>	1,2V max. I _L =100 mA							
Tipo uscita / <i>Output type</i>	NPN o / or PNP, NO/NC selezionabile / <i>selectable</i>							
Frequenza di commutazione <i>Switching frequency</i>	1 kHz max.							
Ritardo alla disponibilità <i>Time delay before availability</i>	200 ms							
Protezioni elettriche alimentazione <i>Supply electrical protections</i>	Inversione di polarità, sovratensioni impulsive <i>Polarity reversal, transient</i>							
Protezioni elettriche uscita <i>Output electrical protections</i>	Al cortocircuito (autoripristinante) <i>Short circuit (autoreset)</i>							
Limiti di temperatura <i>Temperature range</i>	-25°C....+70°C (senza condensa / <i>without freeze</i>)				-25°C....+60°C	-25°C....+70°C (senza condensa / <i>without freeze</i>)		
Deriva termica / <i>Temperature drift</i>	≤ 10% Sr							
Interferenza alla luce esterna <i>Interference to external light</i>	3000 lux (lampada ad incandescenza), 10000 lux (luce solare) <i>3000 lux (incandescent lamp), 10000 lux (sunlight)</i>							
Grado di protezione <i>Protection degree</i>	IP65 (EN60529) ⁽⁴⁾							
Indicatori LED / <i>LED indicators</i>	Giallo (uscita attivata), verde (alimentazione) / <i>Yellow (output energized), green (supply)</i>							
Materiale contenitore <i>Housing material</i>	PBT (plastico), ottone nichelato (metallico), nylon (passacavo) <i>PBT (plastic housing),nickel-plated brass (metal housing), nylon(cable exit)</i>							
Materiale ottica / <i>Lenses material</i>	Plexiglass 7N					Vetro / <i>Glass</i> (STF-**)		
Coppia di serraggio <i>Tightening torque</i>	40 Nm (corpo metallico) (<i>metal housing</i>)							
Peso (appross.) / <i>Weight (approx.)</i>	80-85 g							

⁽¹⁾ Con carta bianca opaca 100x100 mm / With 100x100 mm white matt paper

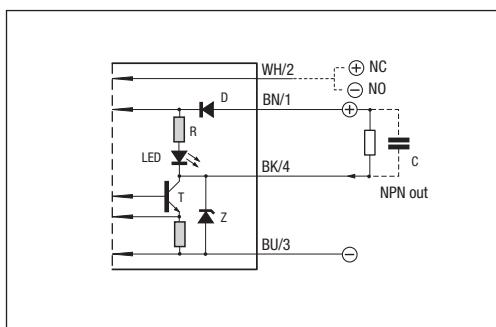
⁽²⁾ Con carta bianca opaca 200x200 mm / With 200x200 mm white matt paper

⁽³⁾ Con catarifrangente standard Ø80 mm (RL110 fornito separatamente) / With standard reflector Ø 80 mm (RL110 supplied seperately)

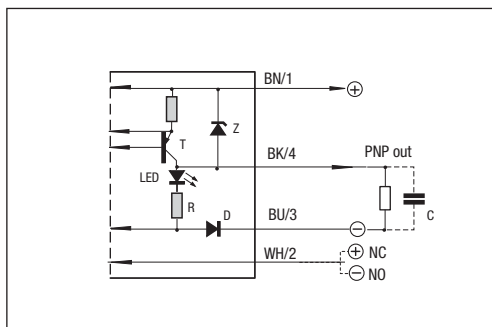
⁽⁴⁾ Protezione garantita solo con il cavo a connettore correttamente montato / Protection guaranteed only with plug cable well mounted

Schemi elettrici delle connessioni - Electrical diagrams of the connections

Uscita NPN / NPN output



Uscita PNP / PNP output



Legenda Key

BN → marrone/brown
BK → nero/black
PK → rosa/pink
BU → blu/blue
WH → bianco/white
GY → grigio/gray

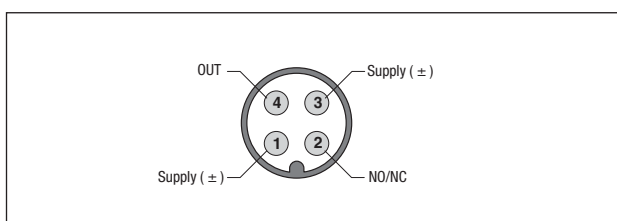
In caso di carico misto, resistivo e capacitivo, la massima capacità ammissibile $C = 0,2\mu F$, per tensioni e correnti di uscite massime.
In case of combined load, resistive and capacitive, the maximum admissible capacity C is $0,2\mu F$, for maximum load voltage and current.

Le indicazioni NO e NC sono riferite all'uso di sensori fotoelettrici a riflessione (in assenza di ostacolo). Per le versioni con catarifrangente l'indicazione NO è da sostituire con NC e la NC diventa NO.

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.

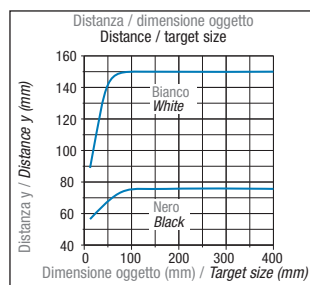
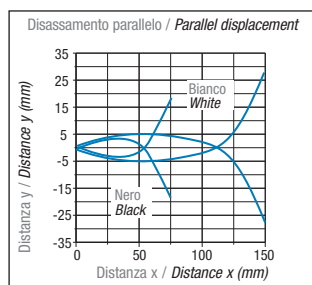
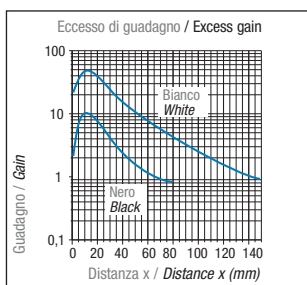
Connettore - Plug

M12

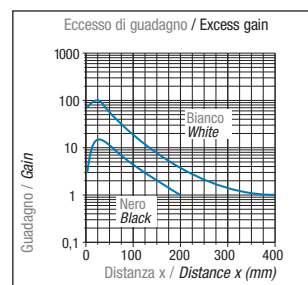


Curva di risposta - Response diagram

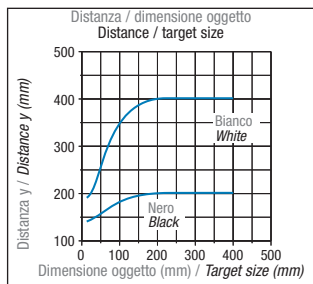
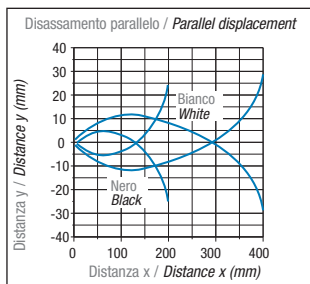
SA2/0* - **



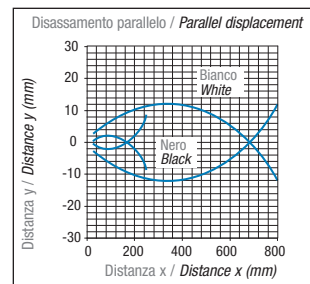
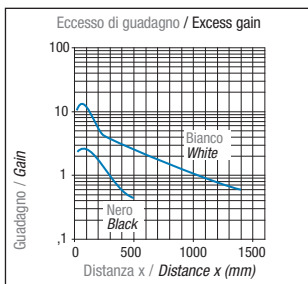
SA6/0* - **



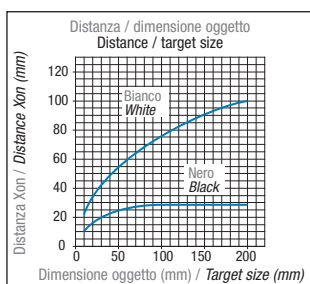
SA6/0* - **



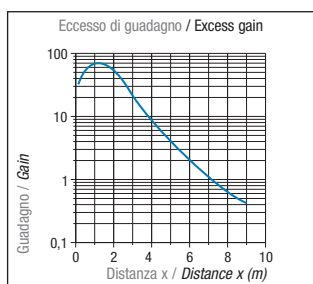
SA8/0* - **



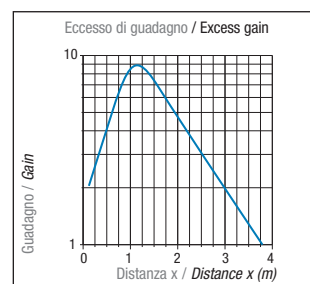
SA8/0* - **



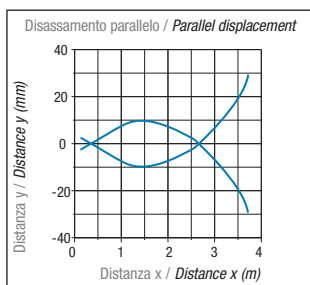
SAC/0* - **



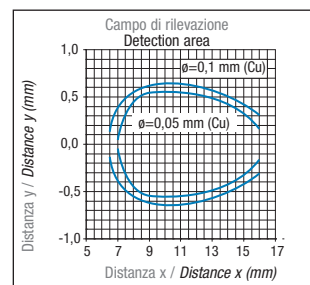
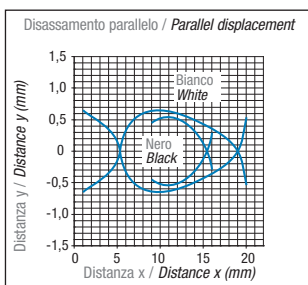
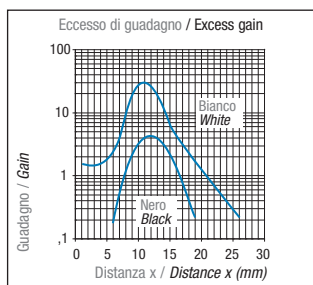
SAP/0* - **



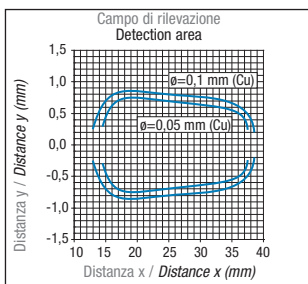
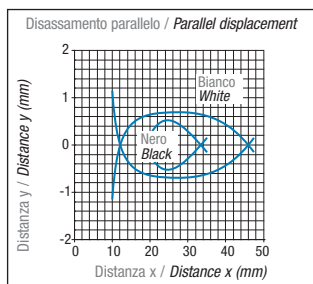
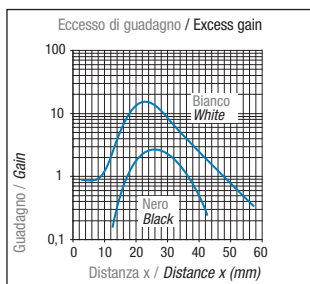
SAP/0* - **



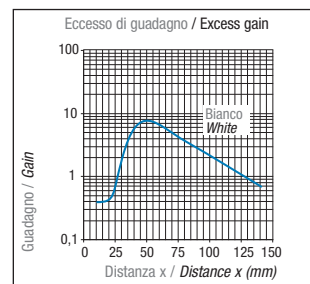
SAT/0* - ** + STF-12



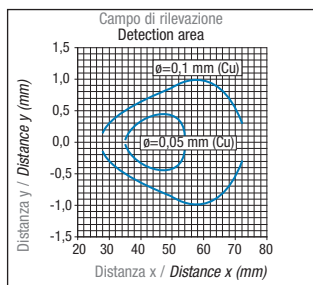
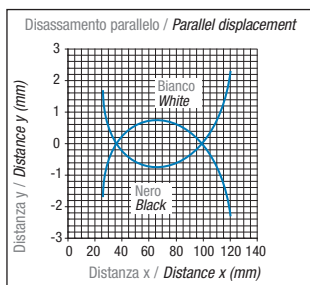
SAT/0* - ** + STF-25



SAT/0* - ** + STF-50

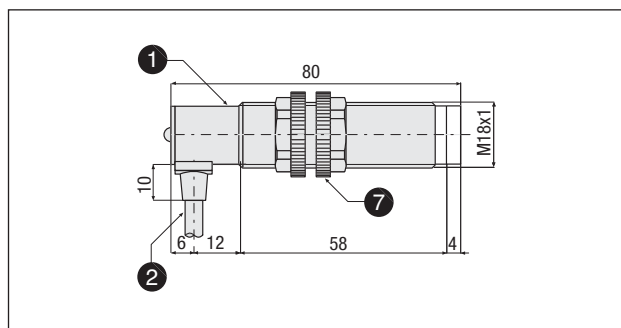


SAT/0* - ** + STF-50

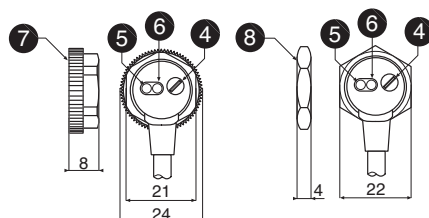
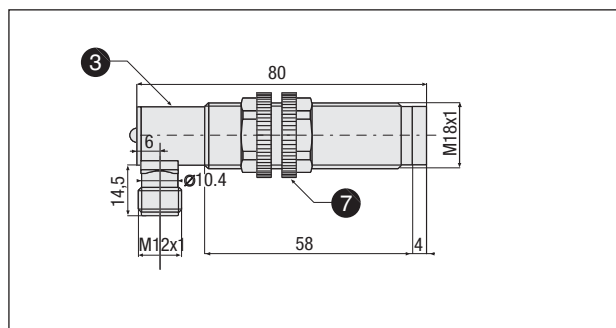


Dimensioni - Dimensions

SA*/0*-*C



SA*/0*-*K



Legenda / Key

- | | |
|--|--|
| ① Uscita a cavo radiale
<i>Right angle cable exit</i> | ⑥ LED verde (alimentazione)
<i>Green LED (supply)</i> |
| ② Cavo 4x0,34 mm ² , Ø4,7 mm, PVC, 2 m
<i>Cable 4x0,34 mm², Ø4,7 mm, PVC, 2 m</i> | ⑦ Ghiera corpo plastico
<i>Tightening nut plastic housing</i> |
| ③ Uscita connettore M12 a 90°
<i>M12 right angle plug cable exit</i> | ⑧ Ghiera corpo metallico
<i>Tightening nut metal housing</i> |
| ④ Trimmer regolazione sensibilità (1 giro)
<i>Sensitivity adjustment trimmer (1 turn)</i> | |
| ⑤ LED giallo (stato uscita ON/OFF)
<i>Yellow LED (output state indicator ON/OFF)</i> | |

Connettori serie CD - Accessori serie ST / *Plugs CD series - Accessories ST series*