

High-speed Fiber Optic: SA1C-F



Key features:

- Ideal for remote sensing applications
- Featuring quick-connect cable and easy-insert fiber optic units for simple installation
- Through-beam and reflected-light sensing available
- Sensing range up to 7.09" (180mm) for through-beam sensors
- Dual outputs: Select NPN and PNP transistor outputs or NPN transistor output combined with a self-diagnostic output
- Outputs selectable for light on or dark on
- High-speed, 50 μ s response time
- Featuring variable off-delay (0 to 100msec) and fine-tune sensitivity adjustment
- Stable LED makes alignment easy
- Red or green LEDs available for detecting color marks
- Mount on a 35mm DIN rail



The perfect fiber optic sensor for applications where you have difficulty mounting regular or miniature sensors or where accessibility is a problem.

Available in through-beam and retro-reflective models, the built-in variable off-delay (0 - 10ms) can help you bring your complete system in tune.

The 50 μ s response time ensures detection of fast moving targets in a high-speed manufacturing environment where speed counts.

Part Numbers

Function	Amplifier	Output	Light Source	Response	Through-Beam Units		Diffuse-Reflected Units	
					Part Number	Range	Part Number	Range
OI Touchscreens	SA1C-FN3E (Cable) SA1C-FN3EC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) Self-diagnostic: 50mA (maximum)	Red LED	Standard speed: 0.5 ms	SA9F-TS: \varnothing 0.16" (M4) Straight	180mm (7.09")	SA9F-DS: \varnothing 0.24" (M6) Straight	60mm (2.36")
		SA9F-TC: \varnothing 0.16" (M4) Coiled			150mm (5.91")	SA9F-DC: \varnothing 0.24" (M6) Coiled	25mm (0.98")	
PLCs	SA1C-FD3F (Cable) SA1C-FD3FC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) PNP transistor: 200mA (maximum)	Red LED	Standard speed: 0.5 ms	SA9F-TT: \varnothing 0.12" (M3) Straight	50mm (1.97")	SA9F-DD: \varnothing 0.24" (M6) Coaxial	60mm (2.36")
		SA9F-TM: \varnothing 0.16" (M4) Multicore			150mm (5.91")	SA9F-DT: \varnothing 0.12" (M3) Straight	20mm (0.79")	
Automation Software	SA1C-FN3EG (Cable) SA1C-FN3EGC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) Self-diagnostic: 50mA (maximum)	Green LED	Standard speed: 0.5 ms	SA9F-TS: \varnothing 0.16" (M4) Straight	16mm (0.63")	SA9F-DS: \varnothing 0.24" (M6) Straight	7mm (0.28")
		SA9F-TC: \varnothing 0.16" (M4) Coiled			14mm (0.55")	SA9F-DC: \varnothing 0.24" Incompatible with green LED	N/A	
Power Supplies	SA1C-FD3FG (Cable) SA1C-FD3FGC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) PNP transistor: 200mA (maximum)	Green LED	Standard speed: 0.5 ms	SA9F-TT: \varnothing 0.12" (M3) Straight	5mm (0.20")	SA9F-DD: \varnothing 0.24" (M6) Coaxial	7mm (0.28")
		SA9F-TM: \varnothing 0.16" (M4) Multicore			14mm (0.55")	SA9F-DT: \varnothing 0.12" Incompatible with green LED	N/A	
Sensors	SA1C-F1N3E (Cable) SA1C-F1N3EC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) Self-diagnostic: 50mA (maximum)	Red LED	High- speed: 50 μ s	SA9F-TT: \varnothing 0.12" (M3) Straight	15mm (0.59")	SA9F-DM: \varnothing 0.01" (0.26mm) Multicore	4mm (0.16")
		SA9F-TM: \varnothing 0.16" (M4) Multicore			40mm (1.57")	SA9F-DH: \varnothing 0.12" (M3) Straight	6mm (0.24")	
	SA1C-F1D3F (Cable) SA1C-F1D3FC (Quick-Connect)	30V DC NPN transistor: 100mA (maximum) PNP transistor: 200mA (maximum)	Red LED	High- speed: 50 μ s	SA9F-TT: \varnothing 0.12" (M3) Straight	15mm (0.59")	SA9F-DD: \varnothing 0.24" (M6) Coaxial	20mm (0.79")
		SA9F-TM: \varnothing 0.16" (M4) Multicore			40mm (1.57")	SA9F-DT: \varnothing 0.12" (M3) Straight	6mm (0.24")	
					SA9F-TH: Heat-resistant glass fiber	30mm (1.18")	SA9F-DH: Heat-resistant glass fiber	7mm (0.28")
					SA9F-TL: Side view	13mm (0.51")	SA9F-DL: Heat-resistant glass fiber Side view	3mm (0.12")



Function is determined by the fiber optic unit used.

For information on accessories, see page 203.