

Easy installation and excellent environmental resistance

- M18 cylindrical housing with IP67 rating against dust and water
- Heat resistance up to 70°C, 158 °F
- SUS housing and silicone lens for superb resistance against noise to perform accurate and stable measurement
- High-speed response time of 100ms/90%
- Wide field of view of φ80mm at 500mm
- IO-Link network supported (SA-80T-4IO)

Various data, such as listed below, can be exchanged with control systems, via IO-Link and field networks.

Cyclic data exchange:

Alarm output, Measured temperature

Process data of Peak hold value, Valley hold value or Internal temperature

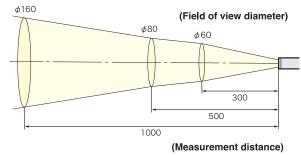
Acyclic data exchange:

Emissivity, Alarm limits, Timer settings, Maintenance data and Events

■ Lineup

Model No.	Measurement Range	Emissivity	Output / Communication	Connection
SA-80T-2A	0 to 200°C (32 to 392°F)	0.95	Analog, 4 to 20 mA	2m cable
SA-80T-4A	0 to 400°C (32 to 752°F)	0.95	Analog, 4 to 20 mA	2m cable
SA-80T-4IO	0 to 400°C (32 to 752°F)	0.1 to 1.2	IO-Link	M12 4-pin 300mm pigtail cable

Field of view



The fields of view stated above are measurement diameters with an optical response of 90%.

[•] The size of the measurement target must be sufficiently larger than the measurement diameters shown in the above diagram.

SA-80 Series



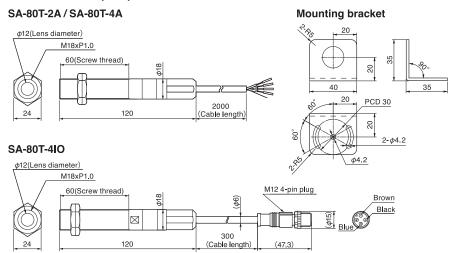
■ Specifications

	Model	SA-80T-2A	SA-80T-4A	SA-80T-4IO		
Measurement range		0 to +200°C (32 to 392°F)	0 to +400°C (32 to 752°F)	0 to +400°C (32 to 752°F)		
Field of view		ø80/500 mm				
Optics		Silicon lens				
Sensing element/spectral response		Thermopile/8 to 14 μm				
Response time		100 ms/90% response				
Accuracy*		0 to 200°C (32 to 392°F): ±2°C (±3.6°F), 201 to 400°C (393.8 to 752°F): ±1% of reading value				
		* Measurement conditions: $\varepsilon = 1.0$, ambient temperature of $23 \pm 5^{\circ}$ C ($73.4 \pm 9^{\circ}$ F),				
		measurement distance of 250 mm, measurement target: ø100 mm				
Repeatability		±1°C (±1.8°F)				
Emissivity adjustment		0.95 (fixed)		0.1 to 1.2		
Supply voltage		12 to 24 VDC ± 10%		18 to 30 VDC ± 10%		
Current consumption		Max. 70 mA		Max. 50 mA		
Communication interface		Not supported		IO-Link		
IO-Link	Minimum cycle time			3 ms		
specifications	Communication speed			COM2 (38.4 kbps)		
	IO-Link version			1.1		
	Communication function			IO-Link power supply		
	operation power supply	-	-	(supplied from IO-Link Master)		
	Process input data byte count			4 bytes		
	Process output data byte count			0 byte		
Output		Analog output, 4 to 20 mA		Via IO-Link		
Total cable extension		-		20 m		
Connection		2 m cable		M12 4-pin 300 mm pigtail cable		
Environmental	Degree of protection					
resistance	Ambient temperature					
	Ambient humidity	0 to +70°C (32 to 158°F) 35 to 85%RH (no condensation)				
	Storage temperature					
	Vibration resistance	10 to 55 Hz, 1.5	XYZ directions			
Applicable	EMC	EMC Directive (2014/30/EU)				
regulations	Environment	RoHS Directive (2011/65/EU), China RoHS (MIIT Order No.32)				
Applicable standard		EN 61326-1:2013				
Materials		SUS/AL				
Weight		Approx. 180 g				
Standard included accessories		Mounting nut × 2		Mounting nut × 2, Mounting bracket		

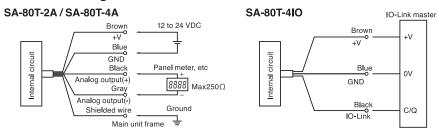
^{*} With an environmental temperature of 23 ± 5°C (73.4 ± 9°F) and an environmental temperature fluctuation of ±1°C (±1.8°F)/hour and under Optex FA calibration conditions.



■ Dimensions (mm)



■ I/O circuit diagram



■ Options / Accessories

Туре	Model	Description
M10.4 min	YF2A14-020VB3XLEAX	Straight, 2 m
M12 4-pin Connector cables	YF2A14-050VB3XLEAX	Straight, 5 m
Connector capies	YF2A14-100VB3XLEAX	Straight, 10 m
Mounting bracket	SA-FB18	1 piece
Black tape for glossy objects	HB-250	60mm×2000mm

[•] Note that specifications are subject to change without prior notice for product improvement purposes.