



● 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 $\phi 80\text{mm}$ 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

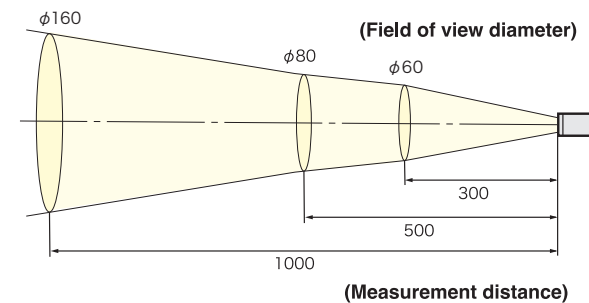
Acyclic data exchange:

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.



Specifications

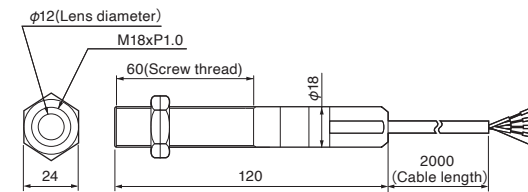
Model		SA-80T-2A	SA-80T-4A	SA-80T-4IO
Measurement range		0 to +200°C (32 to 392°F)	0 to +400°C (32 to 752°F)	0 to +400°C (32 to 752°F)
Field of view		ø80/500 mm		
Optics		Silicon lens		
Sensing element/spectral response		Thermopile/8 to 14 µm		
Response time		100 ms/90% response		
Accuracy*		0 to 200°C (32 to 392°F): ±2°C (±3.6°F), 201 to 400°C (393.8 to 752°F): ±1% of reading value * Measurement conditions: ε = 1.0, ambient temperature of 23 ± 5°C (73.4 ± 9°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 specifications	Minimum cycle time	-	-	3 ms
	Communication speed			COM2 (38.4 kbps)
	IO-Link version			1.1
	Communication function operation power supply			IO-Link 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 resistance	Degree of protection	IP67		
	Ambient temperature	0 to +70°C (32 to 158°F)		
	Ambient humidity	35 to 85%RH (no condensation)		
	Storage temperature	-20 to +70°C (-4 to +158°F)		
	Vibration resistance	10 to 55 Hz, 1.5 mm amplitude, 2 hours each for XYZ directions		
Applicable regulations	EMC	EMC Directive (2014/30/EU)		
	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.

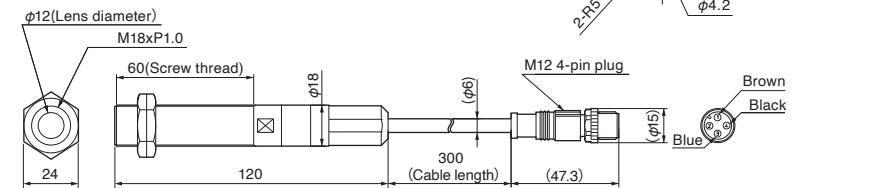
• Note that specifications are subject to change without prior notice for product improvement purposes.

Dimensions (mm)

SA-80T-2A / SA-80T-4A



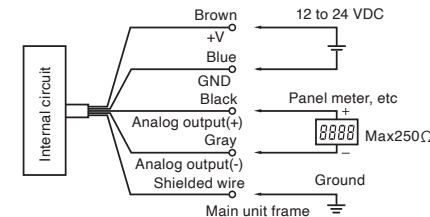
SA-80T-4IO



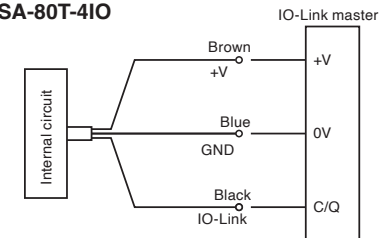
Mounting bracket

I/O circuit diagram

SA-80T-2A / SA-80T-4A



SA-80T-4IO



Options / Accessories

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



OPTEX FA CO., LTD. www.optex-fa.com