



SI-F1000

Controller



SPECIFICATIONS

Model		SI-F1000	
Designation		Main Controller Separate type ⁴	
No. of connectable spectrum units		2	
Display	Minimum display unit	0.001 μ m 0.00004 mil	
	Display range	$\pm 999.999 \mu$ m to ± 9999.99 mm, ± 999.999 mil to ± 9999.99 mil (7 settings selectable)	
	Display cycle	10 times/sec	
Terminal block ¹	Laser remote interlock input	Non-voltage or voltage input ⁵ .	
	TIMING1 input		
	RESET1 input		
	Auto-zero1 input		
	Laser control input		
	Analog voltage output	± 10 V x 2 outputs, Output impedance: 100 Ω	
	Analog current output	4 to 20 mA x 2 outputs, Maximum load resistance: 350 Ω	
	Alarm output	NPN open-collector output (N.C.)	
Expansion connector ¹	General comparator output	NPN open-collector output ⁶	
	TIMING2 input	Non-voltage or voltage input ⁵ .	
	RESET input		
	Auto-zero input		
	Program switch input	Non-voltage or voltage input ⁵ x 3 inputs	
	Alarm output	NPN open-collector output (N.C.)	
	Comparator/ binary output	Binary output	Measured value data output (21 bits) OUT selectable NPN open-collector output
		Strobe output	NPN open-collector output ⁶
Binary selection output			
Binary selection input		Non-voltage or voltage input ⁵ .	
RS-232C interface		Measured data output and control input/output (Maximum baud rate: 115200 bps, selectable)	
USB interface		In conformity with USB Revision 2.0 HI-SPEED (USB 1.1 Full-SPEED compatible)	
Ethernet interface		100BASE-TX/10BASE-T	
Major functions		12 Out simultaneous measurement calculation, average, filter, scaling measurement, measured value alarm, tolerance setting, auto-zero, data storage, light monitor, 8-program memory, interferometer mode, mask, connection of setting support software, etc.	
Power supply	Power supply voltage	24 VDC $\pm 10\%$ Ripple 10% (P-P) max.	
	Maximum current consumption	One head connected: 0.6 A or less. Six heads connected: 1.5 A or less.	
Environment resistance	Ambient temperature ²	0 to +50°C (32 to 122°F)	
	Relative humidity	35 to 85%, No condensation	
	Vibration ³	10 to 55 Hz, 0.5 mm 0.02" double amplitude in X, Y, and Z directions, 2 hours respectively	
Weight		Approx. 600 g	

¹ • NPN open-collector output rating: 50 mA max. (40 V max.), Residual voltage: 0.5 V max.

• Non-voltage input rating: ON voltage: 1 V max., OFF current: 0.6 mA max.

• Part of the input/output circuit of the SI Series is internally common. Be careful that no potential difference is generated between the internally common terminals due to the potential difference between the cables/external devices. For details, refer to "Precautions on wiring".

² When two or more expansion controllers are connected, the ambient temperature is 0 to 40°C 32°F to 104°F.

³ When two or more expansion controllers are connected, the vibration resistance is "10 to 55 Hz, 0.3 mm 0.01" double amplitude in X, Y, and Z directions, 2 hours respectively".

⁴ The SI-F1001 can be used independently. The measured value display and setting change can be done with the display panel (SI-FD500) and setup support software (SI-H1).

⁵ (NPN model) The rating of non-voltage input: 1 V or less ON voltage, 0.6 mA or less OFF current. (PNP model) The rating of voltage input: 10.2 V or more ON voltage (26.4 V max.) 0.6 mA or less OFF current.

⁶ The rating of the NPN open-collector: 50 mA max. (40 V max.), residual voltage of 0.5 V max. The rating of the PNP open collector: 50 mA max. (30 V max.), residual voltage of 0.5 V max.

Dimensions

SI-F1000

