

SRF101/102/103

Smart Recorders, 1/2/3-Pen Recording Models



The SRF101/102/103 are high-performance pen-recording chart recorders that use a chart 100mm wide. DC voltage, thermocouple and resistance temperature detector (RTD) can be applied as input signals.

Options include event outputs, external contact inputs and communications.

Specifications

General	Power	100 to 240Vac, 50/60Hz
	Power consumption	Approx. 40VA
	Ambient temperature	0 to 50°C
	Ambient humidity	30 to 90% RH (no condensation allowed)
	Mass	1 pen: 3.9kg, 2 pen: 4.1kg, 3 pen: 4.3kg (with options)
Input	Type	Thermocouple: R, S, B, K, E, J, T, Ni-NiMo, WRe0-26, WRe5-26, PLII, Nicrosil-Nisil DC voltage: mV, V, RTD: Pt100, JPt100
	No. of channels	1, 2 or 3
	Input measuring period	Approx. 125ms
	PV bias	-9999 and +19999 units
	Display	7-digit, 7-segment LEDs (red and green)
Display	Display system	7-digit, 7-segment LEDs (red and green)
	Display period	4s (channel updating): 0.5s (data updating)
	Display contents	Measuring value, channel number, alarm display, date, time, chart feeding speed, other configuration data
	Chart form	Fan fold type (folding system)
	Trend recording period	Continuous recording with cartridge pen (disposable type)
Recorder	Digital printing	Dot recording with cartridge pen (disposable type)
	Effective recording width	-0.5 to +100.5mm with respect to calibration position (0%)
	Chart feeding speed	1 to 599mm/h or 10 to 200mm/m, selectable
	Recording accuracy	±0.5% FS
	Trend recording	PV value (analog)
Recording format	Trend + tabular recording	PV value (analog)
	Trend + schedule demand recording	PV value (analog)
	Output relay points	6
	Output operation	Up to 2 events set per channel can be combined freely, and OR output is available.
	Output form	Transfer contact (NC and NO contacts)
Event output (option)	Contact ratings	100Vac/0.2A or 30Vdc/0.3A
	Input points	4
	Function	RSW1: Recording start; RSW2: Demand (DMD) printing; RSW3: Chart feeding; RSW4: #1 to #4 message printing
	Switching system	Alternate (toggle)
	External contact input	

Accessories (sold separately)

Model No.	Description	
SLP-F10J20	Smart Loader Package	
		Application Range (example)
81409977-004	Folding chart, 40-section (10 units per box) (recycled paper)	0 to 160, 0 to 200, 0 to 400, 0 to 800
81406088-001	Folding chart, 50-section (10 units per box) (standard paper)	0 to 100%
81409977-002	Folding chart, 60-section (10 units per box) (recycled paper)	0 to 30, 0 to 120, 0 to 300, 0 to 600
81409977-003	Folding chart, 70-section (10 units per box) (recycled paper)	0 to 14, 0 to 700, 0 to 1400, -20 to +50
81409977-005	Folding chart, 75-section (10 units per box) (recycled paper)	0 to 150, 100 to 250, 0 to 750
81409977-001	Folding chart (recycled paper), 50-section (10 units per box)	0 to 100%
81407115-001	Clean paper chart, 50-section (10 units per box)	For clean room, 0 to 100%
81446293-001	Spare 1st pens (3 units)	
81446294-001	Spare 2nd pens (3 units)	
81446295-001	Spare 3rd pens (3 units)	
81446296-001	Spare plotter pens (3 units)	
81401325	250Ω resistor (accuracy ±0.02%) (1 unit)	
81446642-001	250Ω resistor (accuracy ±0.05%) (2 units)	
81446643-001	Carrying handle kit	

Selection Guide

I II III IV V VI VII Example: SRF102AA01000

Segment	Model No. selection		Description			
I	Basic No.	SRF101	100mm 1-pen printing recorder			
		SRF102	100mm 2-pen printing recorder			
		SRF103	100mm 3-pen printing recorder			
II	Power	A	100 to 240Vac			
III	Input	Model No.	1 st Pen	2 nd Pen	3 rd Pen	
			SRF101	T/C and voltage	—	—
			SRF102	T/C and voltage	T/C and voltage	—
			SRF103	T/C and voltage	T/C and voltage	T/C and voltage
		A	SRF101	RTD and voltage	—	—
			SRF102	RTD and voltage	RTD and voltage	—
			SRF103	RTD and voltage	RTD and voltage	RTD and voltage
		B	SRF101	RTD and voltage	RTD and voltage	—
			SRF102	RTD and voltage	RTD and voltage	—
			SRF103	RTD and voltage	RTD and voltage	RTD and voltage
		C	SRF101	T/C and voltage	RTD and voltage	RTD and voltage
			SRF102	RTD and voltage	T/C and voltage	—
			SRF103	RTD and voltage	T/C and voltage	T/C and voltage
IV	Option 1	0	None			
		1	6 event outputs			
		2	6 event outputs + 4 remote switch inputs			
		0	None			
		1	RS-485			
		2	RS-232C			
VI	Option 2	0	None			
VII	Option 3	00	None			
		D0	With inspection data			
		T0	Tropicalization			
		B0	Tropicalization + inspection data			
		Y0	With traceability certification			

Input Types and Ranges

Range code	Input type	Range (°C)	Range code	Input type	Range (°C)
100	mV	±14.00mV*	270	N	0.0 to 1300.0
101		±25.00mV*	271		0.0 to 700.0
102		±70.00mV*	272		0.0 to 350.0
105	V	±5.000V*	280	WRe0-26	0.0 to 2320.0
200	R	0.0 to 1760.0	290	WRe5-26	0.0 to 2320.0
210	S		310	PL II	-100.0 to +1390.0
220	B		311		-100.0 to +600.0
230	K	-200.0 to +1370.0	312		-100.0 to +300.0
231		-200.0 to +600.0	320	Ni-Ni-Mo	0.0 to 1310.0
232		-200.0 to +300.0	401	Pt100Ω	-200.0 to +300.0
240	E	-200.0 to +900.0	402		-140.0 to +150.0
241		-200.0 to +350.0	403		-100.0 to +100.0
250	J	-200.0 to +1100.0	411	JPt100Ω	-200.0 to +300.0
251		-200.0 to +450.0	412		-140.0 to +150.0
260		-200.0 to +400.0	413		-100.0 to +100.0
261	T	-200.0 to +250.0			

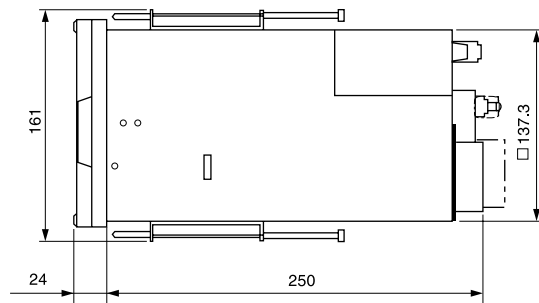
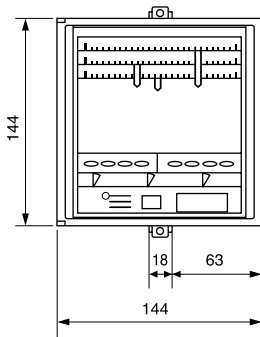
* Indication range: -19999 to +29999.

°F display is selectable.

Dimensions

(Unit: mm)

• SRF101/102/103



• Panel cutout

