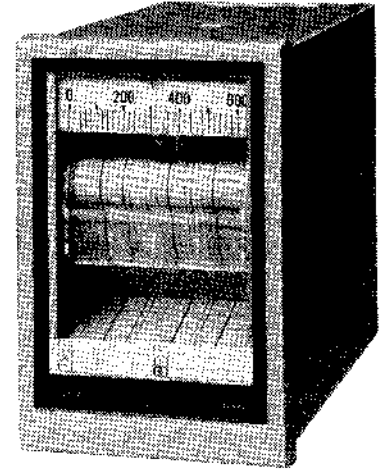


# ELECTRONIC MINI-RECORDER

**CHINO** **PS**  
PERFORMANCE SPECIFICATION

## MODEL ES6□□

The ES600 is a compact industrial analog recorder using 60-mm wide chart paper. Even with its compact size of 96 × 144 mm, it has functions comparable with a large-size recorder including a highly reliable automatic parallel system, easy-to-install fanfold recording chart paper, etc. There are two recording systems, pen type recorders have one-point continuous recording and dot printing type recorders are available which record a maximum of six points. Thermocouples, DC voltages/currents, resistance thermometers and thermistors measuring inputs are available which enable the recording of temperatures, various industrial units, signal voltages and currents.



MODEL ES600

### ■ GENERAL SPECIFICATIONS

<b>Input signal</b>	: mV: More than 10 mV DC span, less than 50 V span Thermocouple: K, T More than 250°C span E, J More than 200°C span R More than 1000°C span Resistance thermometer: (Pt100, JPT100) More than 50°C span Thermistor: More than 50°C span (at room temperature)
<b>Scale width</b>	: 60 mm
<b>Indicating accuracy</b>	: ±1.0% of input span
<b>Dead band</b>	: 0.4% of input span
<b>Balancing speed</b>	: Approx. 2.0 sec (50 Hz), 1.6 sec (60 Hz) for full-scale movement
<b>Chart paper</b>	: Fanfold type, effective width 60 mm, total width 73 mm, total length 10 m
<b>Recording points</b>	: Pen type; 1 pen Dot printing type; 4 types with 1, 2, 3 and 6 points
<b>Recording system</b>	: Pen type: Cartridge pen continuous recording (color: red) Dot printing type: Ink pad dot printing with each point in a different color Dot printing color: 1 point: red 2 point: 1 red, 2 blue 3 points: 1 red, 2 blue, 3 green 6 points: 1 red, 2 blue, 3 green, 4 violet, 5 purple, 6 brown
<b>Chart speed</b>	: 10, 20 mm/h and fast feed
<b>Dot printing interval</b>	: Approx. 10 sec
<b>Pen lift</b>	: Manual
<b>(Pen-writing type)</b>	
<b>Power supply</b>	: 100, 110, 120, 130, 200, 220 230, or 240 V AC, 50/60 Hz
<b>Allowable voltage fluctuations</b>	: +10% to -10% of rated value
<b>Ambient temperature</b>	: -10°C to 50°C
<b>Ambient humidity</b>	: 30 to 90% RH
<b>Allowable signal source resistance</b>	: mV input, thermocouple input: 1 KΩ or less Resistance thermometer input: less than 10 Ω per wire
<b>Input resistance</b>	: Approx. 8 MΩ
<b>Max. common mode voltage</b>	: 200 V AC
<b>Common mode rejection ratio</b>	: 100 dB or more

<b>Series mode rejection ratio</b>	: 50 dB or more
<b>Insulation resistance</b>	: Between measuring terminals and ground terminal: 500 V DC, 20 MΩ or more Between power terminals and ground terminal: 500 V DC, 20 MΩ or more Between measuring terminals and power terminals: 500 V DC, 20 MΩ or more
<b>Withstand voltage</b>	: Between measuring terminals and ground terminal: 500 V AC for 1 minute Between power terminals and ground terminal: 1000 V AC for 1 minute Between measuring terminals and power terminals: 1000 V AC for 1 minute
<b>Power consumption</b>	: Approx. 7 VA
<b>Casing</b>	: Front door: ABS plastic Flange and rear case: ABS plastic
<b>Color</b>	: Gray
<b>Mounting</b>	: Panel mounting
<b>Weight</b>	: Approx. 1.7 kg

### ■ MODELS

ES6□□-□□

<b>Input</b>	1 : Thermocouple 2 : Resistance thermometer 3 : Thermistor 8 : Current or voltage
<b>Alarm</b>	0 : None 1 : High/Low limit* 2 : High limit* 3 : Low limit*
<b>Number of points</b>	01 : 1 pen 1D : 1 dot 02 : 2 dots 03 : 3 dots 06 : 6 dots

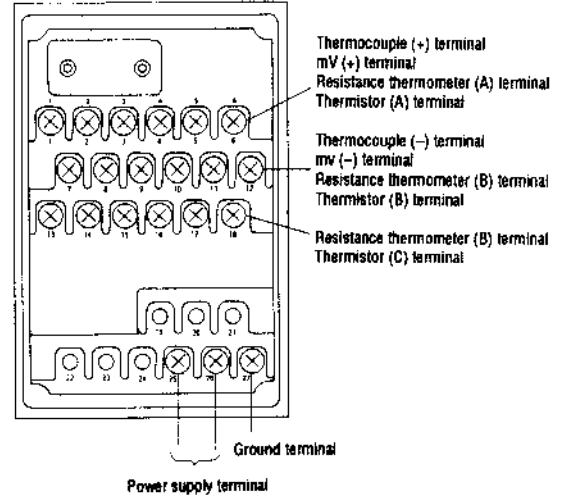
Functions marked \* are optional.

### STANDARD SCALE

Input	Standard scale			
Thermocouple	R	0 to 1400 (50)	0 to 1600 (50)	
	K	0 to 250 (5)	0 to 300 (10)	0 to 600 (20)
		0 to 800 (20)	0 to 1200 (20)	
	E	0 to 200 (5)	0 to 300 (10)	
	J	0 to 300 (10)	0 to 400 (10)	
T	0 to 250 (5)	0 to 300 (10)		
mV	0 to 10 (0.2)	0 to 20 (0.5)	0 to 100 (2)	
	-5 to 5 (0.2)	-10 to 10 (0.5)	-50 to 50 (2)	
	0 to 1V (0.02V)	-1 to 1 V (0.05V)		
mA	4 to 20mA (0.5mA)			
Resistance thermometer	0 to 50 (1)	0 to 100 (2)	0 to 150 (5)	
	0 to 200 (5)	0 to 300 (10)	-20 to 30 (1)	
	Pt100	-20 to 80 (2)	-30 to 70 (2)	-50 to 50 (2)
	JPt100	-50 to 100 (5)	-100 to 50 (2)	
Thermistor	0 to 100 (5) 0 to 200 (5)			

Unit is °C. mV is used only for mV inputs. ( ) shows 1 graduation.

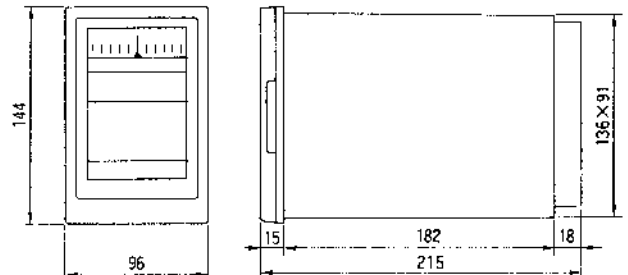
### TERMINAL BOARD



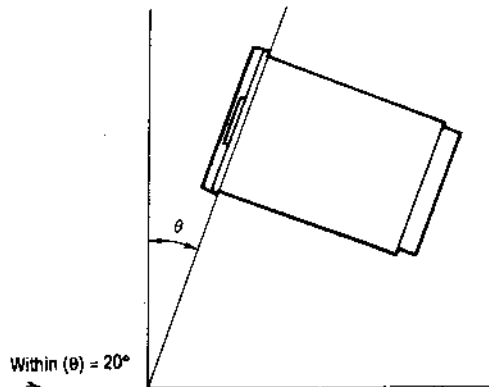
### OPTIONS

Option name	Contents
Chart speed	Variable between 5 mm/h to 400 mm/h
Dot Interval	Approx. 5 sec.
Alarms	Alarm system: High limit (Low limit) type or High/Low limit type Setting accuracy: ±1% of input span Deadband: 0.6% of input span Contact capacity: Resistance load 100V 0.5 A, 200 V 0.2 A Alarm signal: On-off make-contact signal
Double scale	① Manual switching to double scale ② Double scale classified by positions
Burnout	In case input is interrupted, indicated value will be beyond high limit (or low limit)
Portable type	With handle and feet

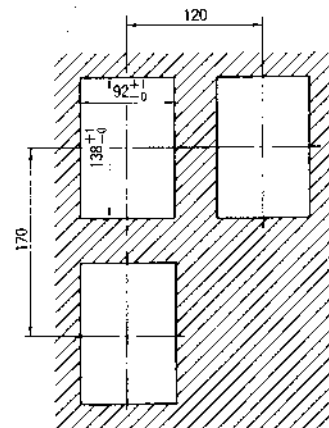
### EXTERNAL DIMENSIONS



### INCLINED MOUNTING



### Panel cutout and mounting interval



Unit: mm

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