

ELECTRONIC MINI-RECORDER



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

Input signal : 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)

Scale width : 60mm

Indicating accuracy: ±1.0% of input span

Dead band : 0.4% of input span

Balancing speed : Approx. 2.0 sec (50 Hz), 1.6 sec (60 Hz)
for full-scale movement

Chart paper : Fanfold type, effective width 60mm,
total width 73 mm, total length 10 m

Recording points : Pen type; 1 pen
Dot printing type; 4 types with 1, 2, 3 and
6 points

Recording system : 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 points: 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

Chart speed : 10, 20 mm/b and fast feed

Dot printing interval: Approx. 10 sec

Pen lift : Manual

(Pen-writing type)

Power supply : 100, 110, 120, 130, 200, 220, 230,
or 240 V AC, 50/60 Hz

Allowable voltage fluctuations : +10% to -10% of rated value

Ambient temperature: -10°C to 50°C

Ambient humidity : 30 to 90% RH

Allowable signal source resistance : mV input, thermocouple input: 1KΩ or less
Resistance thermometer input: less than
10 Ω per wire

input resistance : Approx. 8 MΩ

Max. common mode voltage : 200 V AC

Common mode rejection radio : 100 db or more

Series mode rejection ratio : 50 dB or more

Insulation resistance : Between measuring terminals and ground
terminal: 500 VDC, 20 MΩ or more
Between power terminals and ground
terminal: 500 VDC, 20 MΩ or more
Between measuring terminals and power
terminals: 500 VDC, 20 MΩ or more

Withstand voltage : Between measuring terminals and ground
terminal: 500 VAC for 1 minute
Between power terminals and ground
terminal: 1000 VAC for 1 minute
Between measuring terminals and power
terminals: 1000 VAC for 1 minute

Power consumption : Approx. 7 VA

Casing : Front door: ABS plastic
Flange and rear case: ABS plastic

Color : Gray

Mounting : Panel mounting

Weight : Approx. 1.7kg

MODELS

ES6 □ □ - □ □

Input 1 : Thermocouple
2 : Resistance thermometer
3 : Thermistor
8 : Current or voltage

Alarm 0 : None
1 : High/Low limit*
2 : High limit*
3 : Low limit*

Number of points 01: 1 pen
1D: 1dot
02: 2dots
03: 3dots
06: 6dots

Functions marked* are optional.

STANDARD SCALE

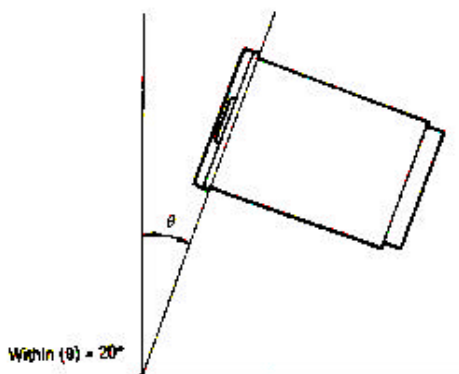
Input	Standard scale		
Thermocouple	R	0 to 1400(50) 0 to 1600(50)	
	K	0 to 250(5)	0 to 300(10) 0 to 600(20)
		0 to 800(20)	0 to 1200(20)
	E	0 to 200(5)	0 to 300(W)
J	0 to 300(10)	0 to 400(10)	
	10 to 250(5)	0 to 300(10)	
MV	0 to 10 (0.2)	0 to 20(0.5)	0 to 100(2)
mA	-5 to 5 (0.2)	-10 to 10 (0.5)	50 to 50 (2)
	0 to 1V (0.02V)	-1 to 1 V (0.05V)	
	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)
Thermistor	JPt100	-50 to 100(5)	-100 to 50(2)
		0 to 100(5)	0 to 200(5)

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

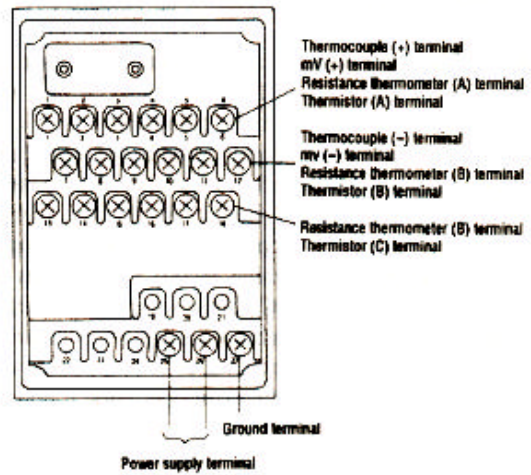
OPTIONS

Option name	Contents
Chart speed	Variable between 5 mtMi to 400 mm,ft
Dot interval	Approx. 5 sec.
Alarm	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 0.5A, 200V 0.2A 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

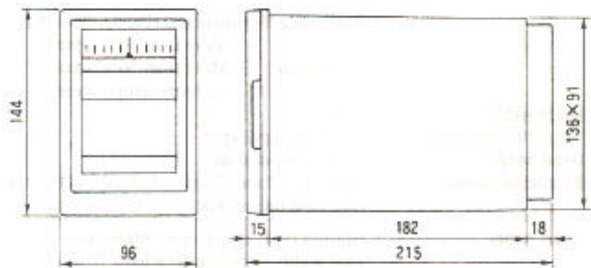
INCLINED MOUNTING



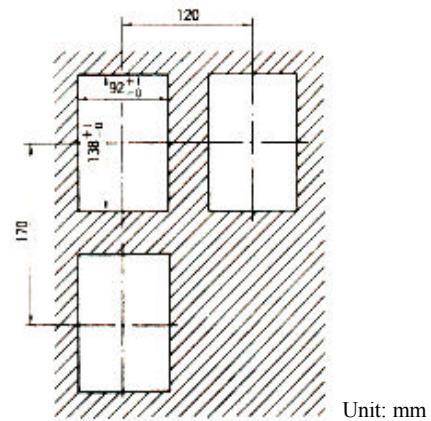
TERMINAL BOARD



EXTERNAL DIMENSIONS



Panel cutout and mounting interval



Specifications subject to change without notice. Original 2000.12

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