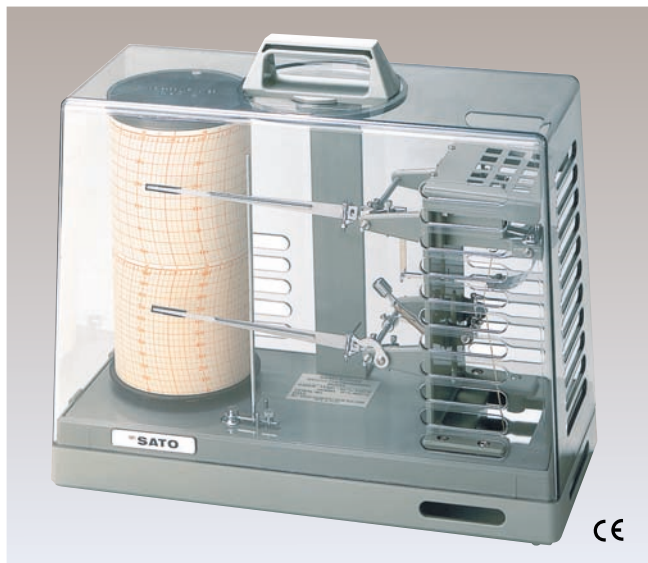


SIGMA II THERMOHYGROGRAPH

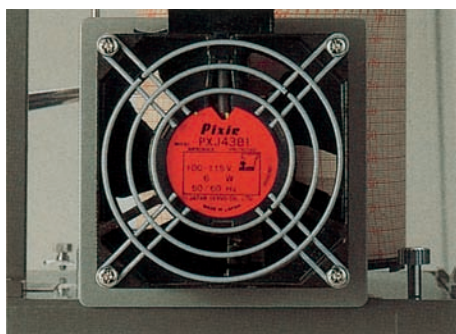


SPECIFICATIONS

Cat. No.: No. 7210-00 (Quartz type),
 No. 7215-00 (Spring-wound type)
 Model: NSII-Q (Quartz type), NSII-S (Spring-wound type)
 Clock: Quartz type:
 1 day, 7 day and 32 day by change-over switch
 Battery: 2 pcs, of "C" cell (1.5 V)
 Life of battery: 1 year for continuous use
 Spring-wound: 1 day and 7 day changed by gear
 Sensors: Aged bimetalic strip for temperature
 Human hair bundle for relative humidity
 Measuring range: -15 to +40°C for temperature
 0 to 100% for relative humidity
 Accuracy: ±1°C for temperature ±3% for relative humidity
 Chart graduation: 1°C for temperature 1% for relative humidity
 Recording pens: Cartridge pens (violet)
 Dimensions: 336 (W) x 148 (D) x 295 (H) mm
 Weight: Approx. 3.1 kg (Quartz type)
 Approx. 3.5 kg (Spring-wound type)
 Accessories: 7 day chart for 1 year use (55 sheets/pad)
 Instruction manual, "C" size battery x 2
 (applicable to quartz type only)

- No. 7210-60: 1 day chart (400 sheets/pad)
- No. 7210-62: 7 day chart (55 sheets/pad): Dustproof type
- No. 7210-64: 32 day chart (55 sheets/pad): Dustproof type
- No. 7210-90: Spare cartridge pen (violet)
- No. 7210-92: Spare cartridge pen (red)
- No. 7210-20: Axial AC fan

Cat. No.: No. 7211-00 (Quartz type)
 Range: -10 to 50°C for temperature
 0 to 100% for relative humidity
 Other specifications:same as above.

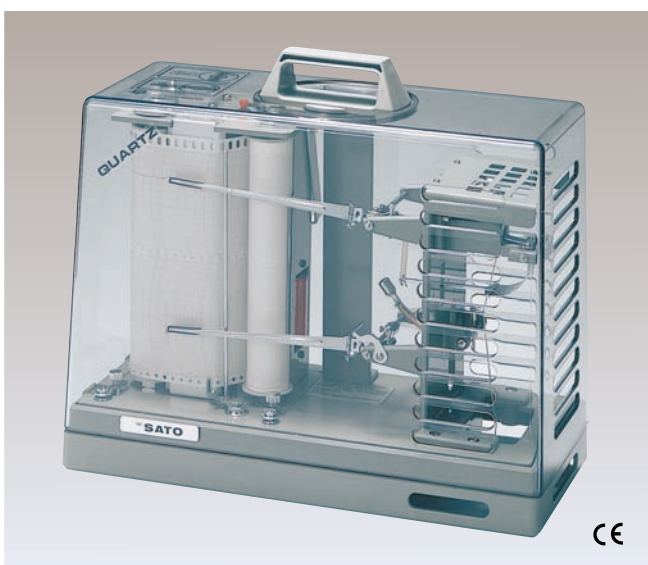


Use an external fan for faster response and more accurate measurement. It is in combination with this fan that the maximum capability of measurement for temperature and humidity can be achieved.

The fan inhales fresh air into the instrument and makes the response of sensor faster, resulting in the detection of accurate data. It is effective, particularly in warehouses which are excluded from the open air, laboratories where ventilation is poor or air tight small space.

Cat. No.	7210-20
Model	Axial AC Fan
Power requirements	100 to 120 VAC 50/60 Hz
Power consumption	70/55 mA
Revolution of fan	2700/3300 rpm
Max. airflow	0.73/0.94 m ³ min
Max. static pressure	3.4/5 mmAq

AURORA90 III LONG TERM THERMOHYGROGRAPH

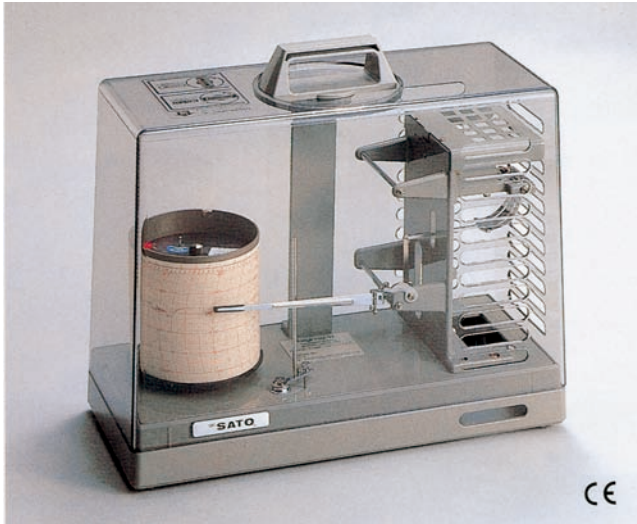


SPECIFICATIONS

Cat. No.: No. 7012-00 (Quartz type),
 Model: AURORA-90-III
 Clock: Quartz type: Battery: "C" size battery x 2
 Recording cycle: 1 month and 3 month
 Sensors: Aged bimetalic strip for temperature
 Human hair bundle for relative humidity
 Measuring range: -20 to +50°C for temperature
 0 to 100% for relative humidity
 Accuracy: ±1°C for temperature ±3% for relative humidity
 Chart graduation: 1°C for temperature 1% for relative humidity
 Chart speeds: 3.2 mm/hour Min. graduation: 2 hours
 Chart width: 174 mm (effective width: 156 mm)
 Recording pens: Cartridge pens (violet)
 Dimensions: 336 (W) x 148 (D) x 195 (H) mm
 Weight: Approx. 3.8 kg
 Accessories: 3 rolls of 3 month chart
 Instruction manual, Spare cartridge pen (violet) x 2,
 "C" size battery x 2

- No. 7012-60: 3 month chart (1 roll)
- No. 7012-70: 1 month chart (1 roll)
- No. 7012-90: Spare cartridge pen (violet)
- No. 7012-92: Spare cartridge pen (red)

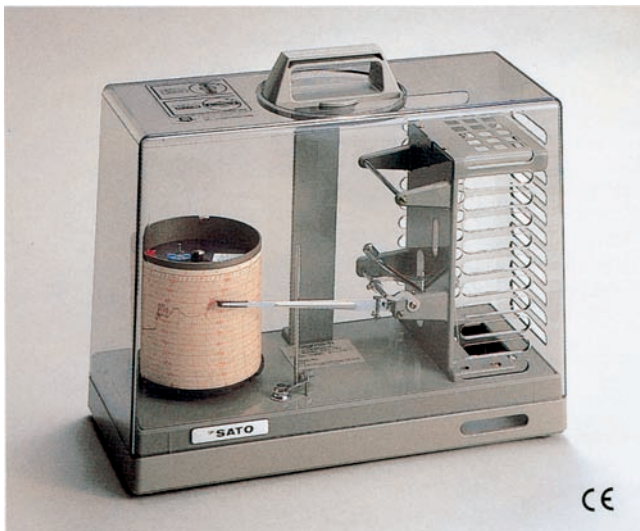
SIGMA II THERMOGRAPH



SPECIFICATIONS

Cat. No.:	No. 7230-00
Model:	NSII-TQ
Clock:	Quartz type 1 day, 7 day and 32 day by change-over switch
Battery:	2 pcs, of "C" cell (1.5 V)
Life of battery:	1 year for continuous use
Sensor:	Aged bimetallic strip
Measuring range:	-15 to +40°C (option: -10 to 50°C)
Accuracy:	±1°C
Chart graduation:	1°C
Recording pens:	Cartridge pen (violet)
Dimensions:	336 (W) x 148 (D) x 295 (H) mm
Weight:	Approx. 2.9 kg
Accessories:	7 day chart for 1 year use (55 sheets/pad) Instruction manual, "C" size battery x 2

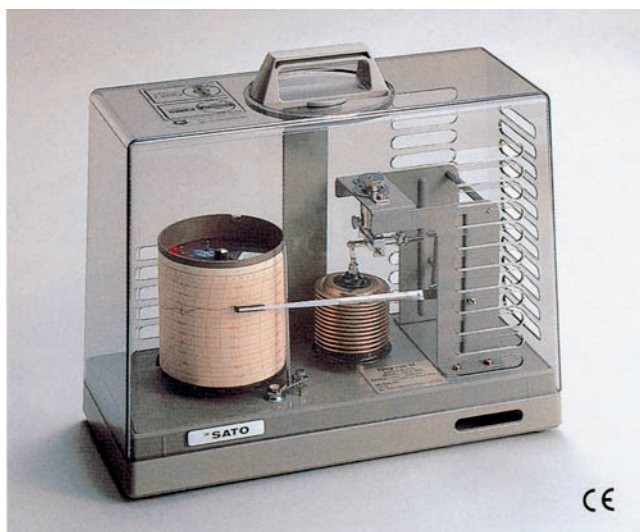
SIGMA II HYGROGRAPH



SPECIFICATIONS

Cat. No.:	No. 7234-00
Model:	NSII-HQ
Clock:	Quartz type 1 day, 7 day and 32 day by change-over switch
Battery:	2 pcs, of "C" cell (1.5V)
Life of battery:	1 year for continuous use
Sensor:	Human Hair Bundle
Measuring range:	0 to 100% R.H.
Accuracy:	±3% R.H.
Chart graduation:	1% R.H.
Recording pens:	Cartridge pen (violet)
Dimensions:	336 (W) x 148 (D) x 295 (H) mm
Weight:	Approx. 2.9 kg
Accessories:	7 day chart for 1 year use (55 sheets/pad) Instruction manual, "C" size battery x 2

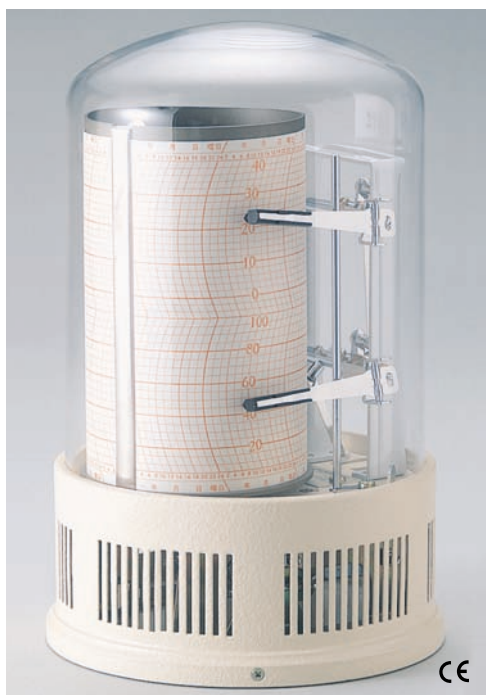
SIGMA II BAROGRAPH



SPECIFICATIONS

Cat. No.:	No. 7237-00
Model:	NSII-BQ
Clock:	Quartz type 1 day, 7 day and 32 day by change-over switch
Battery:	2 pcs, of "C" cell (1.5 V)
Life of battery:	1 year for continuous use
Sensor:	Bellows
Temperature compensation:	Bimetal
Measuring range:	940 to 1,045 hPa
Accuracy:	±1 hPa
Chart graduation:	1.0 hPa
Recording pens:	Cartridge pen (violet)
Dimensions:	336 (W) x 148 (D) x 295 (H) mm
Weight:	Approx. 3.1kg (Quartz type)
Accessories:	7 day chart for 1 year use (55 sheets/pad), instruction manual, "C" size battery x 2

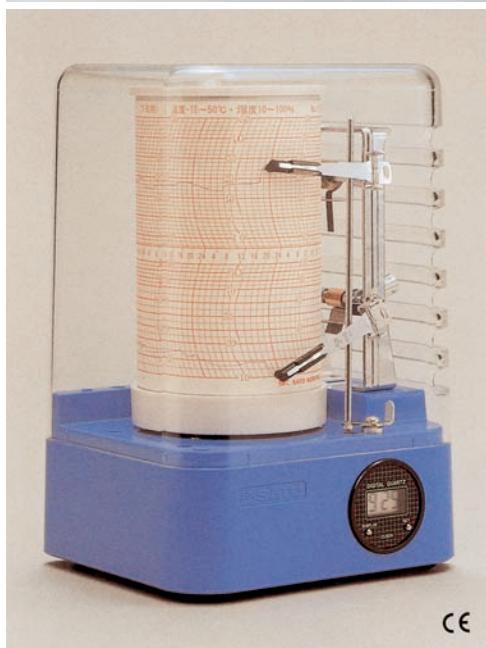
* Spring-wound type is available for ordering.

**No. 7005-00 MODEL "MINI-STAR" THERMOHYGROGRAPH (QUARTZ)****SPECIFICATIONS**

Sensors:	Aged bimetallic strip for temperature Human hair bundle for relative humidity
Measuring range:	-6 to +40°C 5 to 100% R.H.
Accuracy:	±2°C for temperature ±5% for R.H.
Chart graduation:	2°C for temperature 5% for R.H.
Clock:	Quartz type
Drum rotation:	7 day
Power:	"AA" size battery x 1
Recording pens:	Cartridge-pens (violet)
Dimensions:	192 mm(H) x 125 mm (W) x 125 mm(D)
Weight:	Approx. 1.5 kg
Accessories:	7 day chart for one year use (55 sheets/pad) "AA" size battery x 1

Consumable

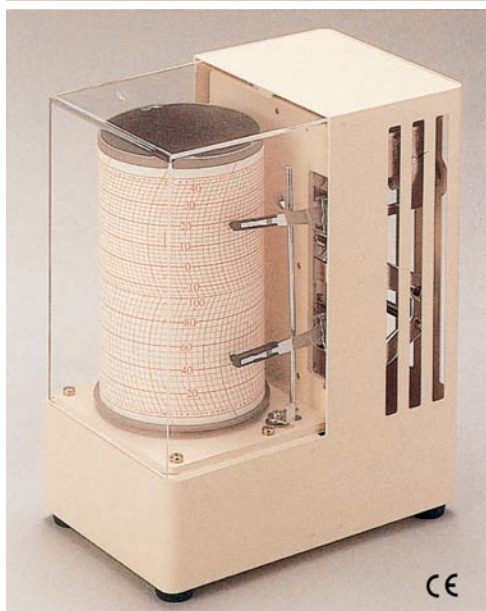
7005-62	Spare 7 day chart (55 sheets/pad)
7005-90	Spare cartridge-pen (violet)
7005-92	Spare cartridge-pen (red)

**No. 7006-00 MODEL MINI-α (Alpha) THERMOHYGROGRAPH (QUARTZ)****SPECIFICATIONS**

Sensors:	Aged bimetal strip for temperature Humidity sensing coil for humidity
Measuring range:	-15°C to 50°C for temperature 10 to 100% for humidity
Accuracy:	±2°C (10 to 30°C) for temperature ±5% (at 18 to 28°C, 20 to 90%) for humidity
Chart graduation:	2°C for temperature 5% for humidity
Clock:	Quartz type
Drum rotation:	7 day
Recording pens:	Cartridge-pens (violet)
Power:	"AA" size battery x 1
Dimensions:	185 mm (H) x 125 mm (W) x 110 mm (D)
Weight:	Approx. 0.8 kgs
Accessories:	7 day chart for one year use (55 sheets/pad) "AA" size battery x 1

Consumable

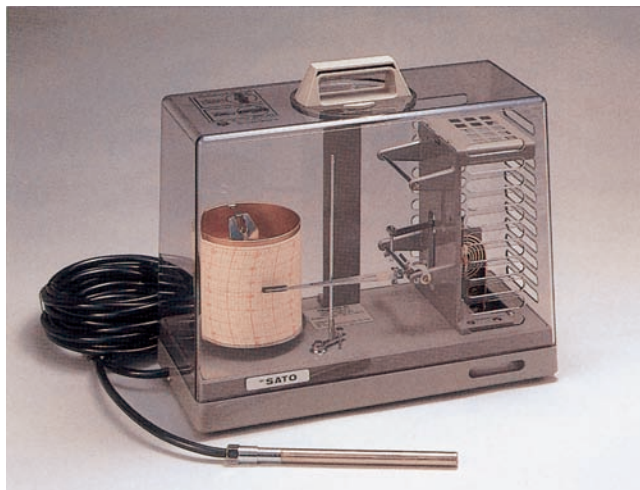
7006-62	Spare 7 day chart (55 sheets/pad)
7006-90	Spare cartridge-pen (violet)
7006-92	Spare cartridge-pen (red)

**No. 7008-00 MODEL "MINI-CUBE" THERMOHYGROGRAPH (QUARTZ)****SPECIFICATIONS**

Sensors:	Aged bimetallic strip for temperature Human hair bundle for relative humidity
Measuring range:	-15 to +40°C for temperature 5 to 100% for R.H.
Accuracy:	±2°C for temperature ±5% for R.H.
Chart graduation:	2°C for temperature 5% for R.H.
Clock:	Quartz type
Drum rotation:	7 day
Power:	"AA" size battery x 1
Recording pens:	Cartridge-pens (violet)
Dimensions:	190 mm(H) x 148 mm (W) x 97 mm(D)
Weight:	Approx. 1.6 kg
Accessories:	7 day chart for one year use (55 sheets/pad) "AA" size battery x 1

Consumable

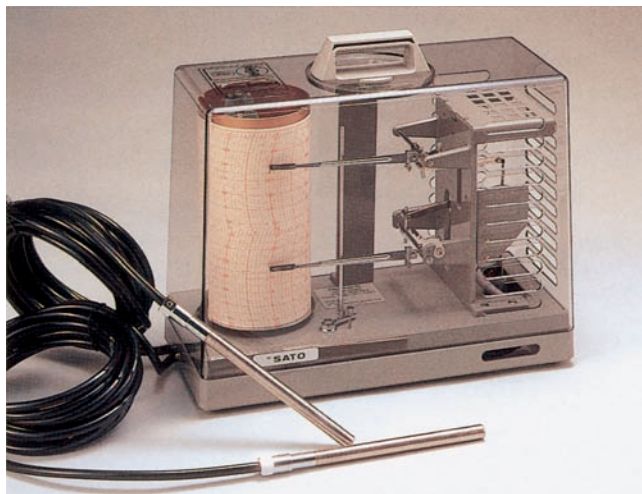
7008-62	Spare 7 day chart (55 sheets/pad)
7008-90	Spare cartridge-pen (violet)
7008-92	Spare cartridge-pen (red)

No. 7200-00 SIGMA II REMOTE ONE POINT THERMOGRAPH**SPECIFICATIONS**

Measuring range: -15 to $+50^{\circ}\text{C}$
 Model: NSII-ES1 (one point type)
 Clock: Quartz type
 Drum rotation: 7 day and 32 day
 Sensor: Mercury in stainless steel capillary
 Lead length: 5 m (vinyl coated)
 Accuracy: $\pm 1^{\circ}\text{C}$
 Chart graduation: 1°C
 Recording pen: Cartridge pen (violet)
 Dimensions: 336 (W) x 148 (D) x 295 (H) mm
 Weight: Approx. 3.6 kg
 Accessories: 7 day chart for 1 year use (55 sheets/pad)
 Instruction manual, "C" size battery x 2

Consumable

No. 7200-62: 7 day chart (55 sheets/pad)
 No. 7200-64: 32 day chart (55 sheets/pad)
 No. 7200-90: Spare cartridge pen (violet)
 No. 7200-92: Spare cartridge pen (red)

No. 7202-00 SIGMA II REMOTE TWO POINT THERMOGRAPH**SPECIFICATIONS**

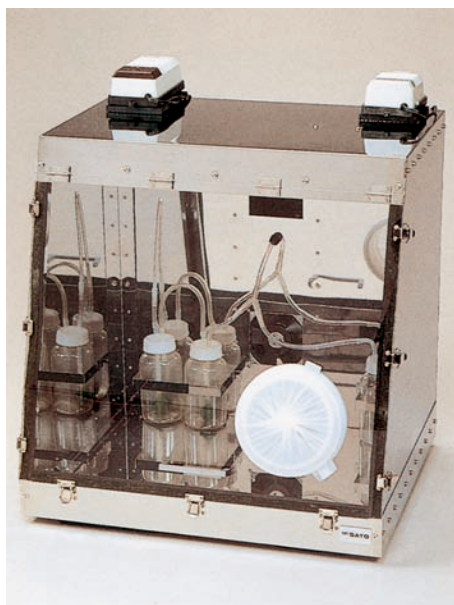
Measuring range: -15 to $+50^{\circ}\text{C}$
 Model: NSII-ES2 (two point type)
 Clock: Quartz type
 Drum rotation: 7 day
 Sensors: Mercury in stainless steel capillary
 Lead length: 5 m (vinyl coated)
 Accuracy: $\pm 1^{\circ}\text{C}$
 Chart graduation: 1°C
 Recording pens: Cartridge pen (violet)
 Dimensions: 336 (W) x 148 (D) x 295 (H) mm
 Weight: Approx. 4.2 kg
 Accessories: 7 day chart for 1 year use (55 sheets/pad)
 Instruction manual, "C" size battery x 2

Consumable

No. 7202-62: 7 day chart (55 sheets/pad)
 No. 7202-90: Spare cartridge pen (violet)
 No. 7202-92: Spare cartridge pen (red)

No. 6000-00 HUMIDITY CONSTANT CHAMBER MODEL SK-120CHB

The SK-120CHB is a simplified Humidity Constant Chamber that provides a constant and stable humidity atmosphere (around 55%) according to the diffuence method. It can be used for regular inspection of the NS-II series Thermohygrograph/Hygrograph and other purposes.

SPECIFICATIONS

Model	HUMIDITY CONSTANT CHAMBER
Type	SK-120CHB
Cat. No.	6000-00
Operation ambient	Temperature : $15 \sim 30^{\circ}\text{C}$ (temperature fluctuation must be within $\pm 1^{\circ}\text{C}$ per hour) Humidity : $30 \sim 80\%$ (no condensing)
Humidity generated in chamber	Around 55% (It will be stable around 45 to 65% depending on desiccant and ambient)
Stability of humidity in chamber	Within $\pm 1\%$ (temperature fluctuation: within $\pm 0.5^{\circ}\text{C}/\text{hour}$) Within $\pm 1.5\%$ (temperature fluctuation: within $\pm 1^{\circ}\text{C}/\text{hour}$)
Range of humidity in chamber	Within $\pm 0.5\%$ at the position for installing
Power requirements	100 VAC $\pm 10\%$ 50/60 Hz
Fuse	$\phi 6.4 \times 30$ mm 125 VAC 0.3A
Dimensions	600 (W) x 600 (H) x 581 (D) mm
Materials	Stainless steel
Weight	16 Kg
Accessories	Desiccant (500 g) 1 ea. Spare fuse 1 ea.

Exclusive Charts

Recorder	Recording cycle	Cat. No.	Quantity	Remarks
No. 7210-00/7215-00 Thermohygrograph (*1)	1 day 7 day 32 day	7210-60 7210-62 7210-64	400 sheets 55 sheets 55 sheets	C 241540 C 1681540 C 321540
No. 7012-00 Thermohygrograph	3 month 1 month	7012-60 7012-70	1 roll 1 roll	3L 1002050-III 1L 1002050-III
No. 7230-00 Thermograph (*2)	1 day 7 day 32 day	7230-60 7230-62 7230-64	400 sheets 55 sheets 55 sheets	AT 241540 AT 1681540 AT 321540
No. 7234-00 Hygrograph	1 day 7 day 32 day	7234-60 7234-62 7234-64	400 sheets 55 sheets 55 sheets	NH 240100 AH 1680100 AH 320100
No. 7237-00 Barograph (hPa scale) (*3)	1 day 7 day 32 day	7237-60 7237-62 7237-64	400 sheets 55 sheets 55 sheets	NB 244045 AB 1684045 AB 324045-3049
No. 7200-00 Remote one point Thermograph	7 day 32 day	7200-62 7200-64	55 sheets 55 sheets	AR 140-1 AR 320
No. 7202-00 Remote two point Thermograph	7 day	7202-62	55 sheets	AR 140-2
No. 7005-00 MINI-STAR Thermohygrograph	7 day	7005-62	55 sheets	S168-5100X640
No. 7006-00 MINI-ALPHA Thermohygrograph	7 day	7006-62	55 sheets	S168-1550
No. 7008-00 MINI-CUBE Thermohygrograph	7 day	7008-62	55 sheets	S168-5100X1540
No. 7014-00 RATONA Thermohygrograph Model R-704	1 day 7 day 31/62 day	7014-60 7014-62 7014-64	400 sheets 55 sheets 55 sheets	R241550 R1681550 R31621550
No. 7018-00 Thermograph No. 7038-00 Hygrograph No. 7058-00 Barograph	7 day 7 day 7 day	7018-62 7038-62 7058-62	55 sheets 55 sheets 55 sheets	RT1681550 RH1680100 RB1684045

(The charts for "SIGMA II" series can be interchangeably used with "SIGMA" series products except 32-day chart.)

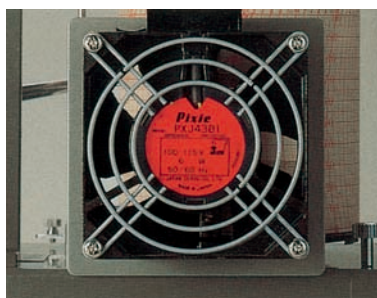
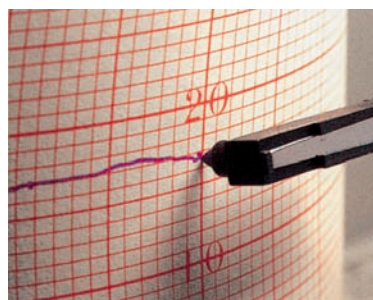
(*1) The charts with the range of -10 to 50°C and 0 to 100% are provided for 7211-00.

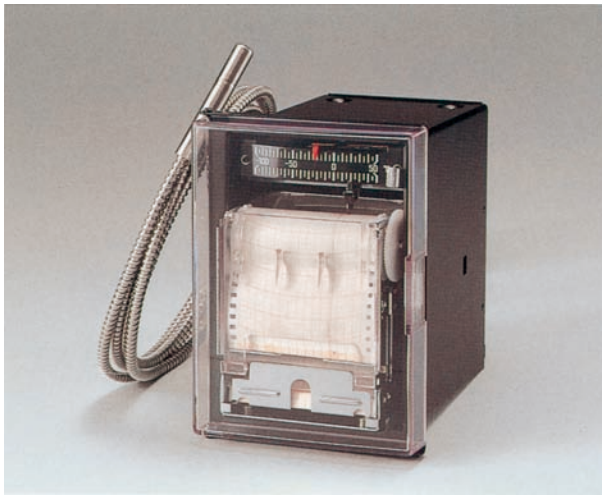
(*2) The 1 day and 7 day charts with the range of -10 to 50°C are provided.

(*3) The charts with mmHg scale is available.

Other Accessories

Items	Cat. No.	Quantity	Remarks	Recorder used
Cartridge pen (violet)	7210-90	1	SK-051-079	Recorders listed above
Cartridge pen (red)	7210-92	1	SK-051-079	Recorders listed above
Dustproof cover	7238-20	1		"Sigma II" Series recorders
Axial fan	7238-22	1	100VDC 50/60Hz	"Sigma II" Series recorders





MODEL LMMC-1, SMMC-1 ULTRA LOW TEMPERATURE RECORDER WITH OR WITHOUT ELECTRIC CONTACT FOR ALARM

Model LMMC-1 (Type 3750-L) Solid liquid-actuated, 1-point recording
 Model SMMC-1 (Type 3350-S) Mercury-actuated, 1-point recording

SPECIFICATIONS

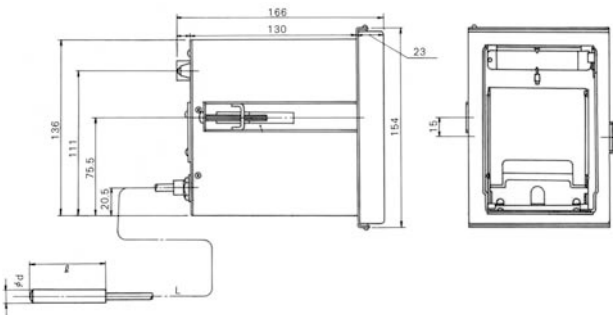
Case: SPCC
 Finish: Melamin-baked plating
 Window: AS Resin, transparent
 Lead wire: SUS304 Flexible tube
 Standard lead length: 2 m
 Bulb: SUS304 NS type (without thread, refer to page 38)
 Electric contact point: Lead switch type 1 point contact available at option
 Chart drive: Quartz motor 1.5 VDC
 Recording time: 60 days
 Chart feed speed: 2.5 mm/h
 Chart paper: Strip type, width 73 mm x length 4.2 m
 Recording pen: Type CPV-77 Cartridge pen (violet)
 Panel cut size: 92 x 138 mm (DIN)

AVAILABLE TEMPERATURE RANGE AND CHARTS

6 folds/box for 1 year use

Temp. Range (°C)	M/M DIV.	For LMMC-1	For SMMC-1
-150 ~ 0	5	2L-10500	—
-100 ~ 50	5	2L-10040	—
-50 ~ 50	2.5	2L-T40	2L-T40
-50 ~ 100	5	2L-50100	2L-50100
0 ~ 100	2.5	2L-T40	2L-T40
0 ~ 150	5	2L-0150	2L-0150
0 ~ 200	5	2L-T40	2L-T40
0 ~ 300	10	—	2L-0300

Drawings



MODEL SSY 1 or 2 POINTS TEMPERATURE RECORDER

Model SSY-A1 (Type 3300-S) Mercury-actuated, 1-point recording
 Model SSY-A2 (Type 3302-S) Mercury-actuated, 2-point recording

* Model LSY Solid Liquid-actuated type is available.

SPECIFICATIONS

Case & cover: Aluminium Cast Alloy (ADC)
 Finish: Melamin-baked plating
 Window: Glass
 Lead wire: SUS304 Flexible tube
 Bulb: SUS304 SW (union) type, with screw PT1/2" (refer to page 38)

(Model SSY-A2 has two lead wires as well as two bulbs.)

Chart drive: DC or AC driven (100 VAC)
 Standard lead length: 3 m (Maximum up to 30 m)
 Recording pen: Cartridge pen
 Type CPV-71 (violet) for model SSY-A1
 Type CPW-II (violet or red) for model SSY-A2

AVAILABLE TEMPERATURE RANGE AND CHARTS

(100 sheets/box)

Temp. Range (°C)	M/M DIV.	12H/REV.	24H/REV.	168H/REV.
-50 ~ 50	2	—	245050	1685050
-20 ~ 50	1	—	242050	1682050
0 ~ 50	1	—	2450	16850
0 ~ 100	2	12100	24100	168100
0 ~ 120	2	12120	24120	168120
0 ~ 150	5	12150	24150	168150
0 ~ 200	5	—	24200	168200
0 ~ 250	5	—	24250	168250
0 ~ 300	5	—	24300	168300
0 ~ 400	10	12400	24400	—
0 ~ 500	10	—	24500	—
0 ~ 600	10	—	24600	—

Drawings

