

# Cal. VD84A

$\phi$  23.70 mm

H 3.45 mm

Item	Version No.
Specification - 1	Version 1
Specification - 2	Version 1
Appearance	Version 1
Casing	Version 1
Hand Fitting	Version 1
Hand Setting Stem	Version 1
Dial	Version 2
Casing Ring	Version 1
Assembly Plan	Version 2
Hands	Version 1



## MOVEMENT SPECIFICATION - 1

### CAL.VD84A 10 1/2 Ligne Quartz Movement Two Hands with 4 Eyes ( Day/Date/Small second/24Hour indicators )

#### 1. MOVEMENT DIMENSIONS

- Outside diameter  $\phi$  23.70 22.60mm (12H~6H) x 22.60mm (3H~9H)
- Casing diameter  $\phi$  23.30 22.10mm (12H~6H) x 21.40mm (3H~9H)
- Total height 3.45 mm

#### 2. TIME STANDARD

- Type of quartz oscillator Tuning fork
- Frequency of quartz oscillator 32,768 H Z
- Accuracy Monthly rate: Less than 20 seconds per month at normal temperature range
- Regulation device Nil
- Regulation hands unbalance Minute : Less than 0.6 $\mu$ N·m ( 60mg·mm )  
Hour : Less than 0.6 $\mu$ N·m ( 60mg·mm )
- Small hands unbalance Less than 0.05 $\mu$ N·m ( 5mg·mm )  
for day, date, small second & 24hour hand

#### 3. BATTERY

- Type Silver oxide battery
- Size  $\phi$  6.8 x t 2.6 ( mm )
- Nominal voltage 1.55V
- Battery life Approx. 3 years
- Recommended battery SR626SW ( SEIZAIKEN )

#### 4. STEPPING MOTOR

- Type Two pole stepping motor
- Step 180° every second

#### 5. JEWEL

0 jewel

#### 6. ANTIMAGNETISM

( direct current magnetic field )

$\geq$  1600 A / m

#### 7. SHOCK RESISTANCE

On equal level with general quartz movement

#### 8. OPERATING TEMPERATURE RANGE

From - 5 °C to + 50 °C

#### 9. TEST OF ACCURACY

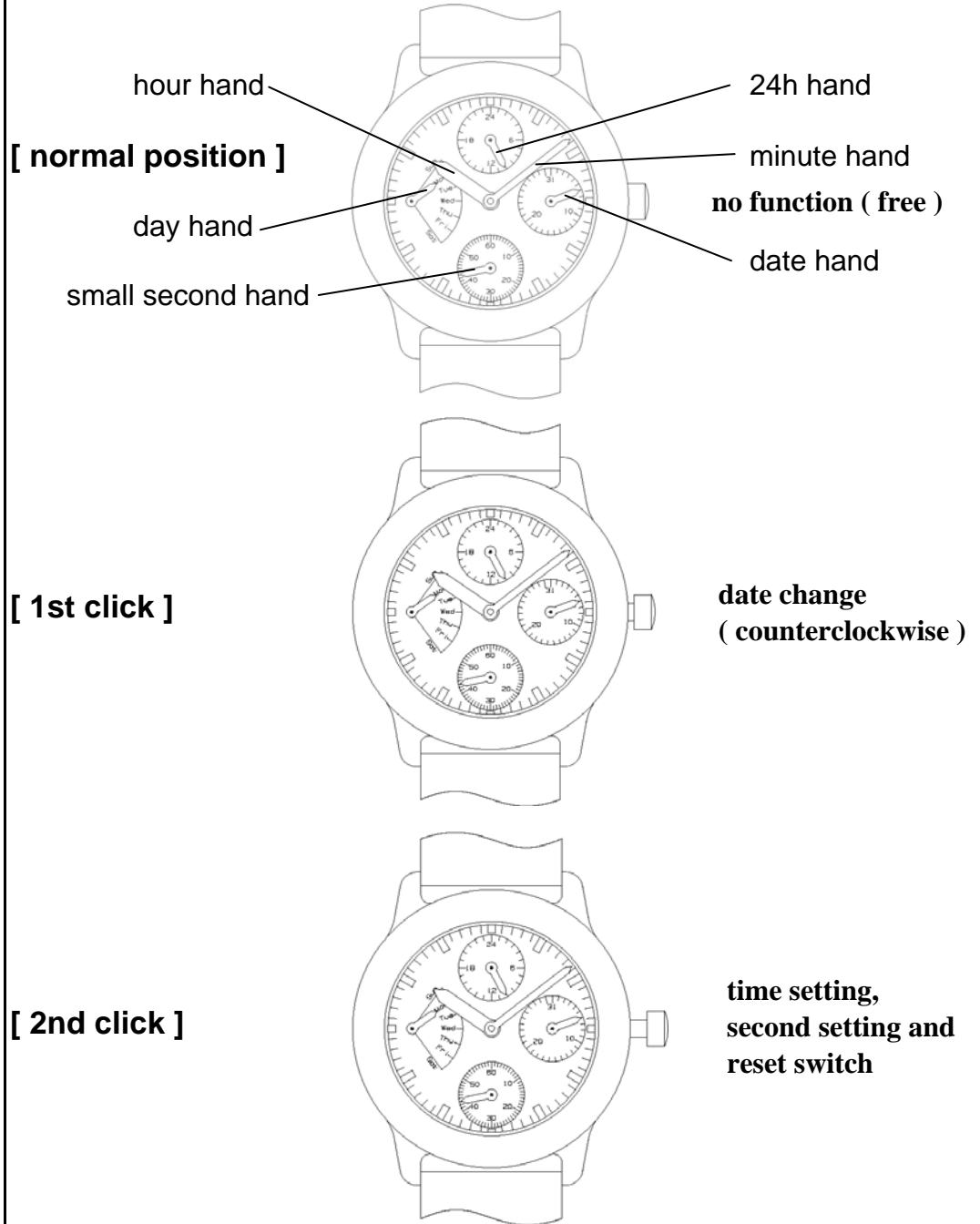
- Equipment to be used SEIKO Quartz Tester QT - 99  
Greiner Quartz Timer - C  
Witschi Q-Tester 4000
- Duration of measurement 10 seconds
- Microphone to be used Electromagnetic detection type

**\* All specifications are subject to change without notice.**

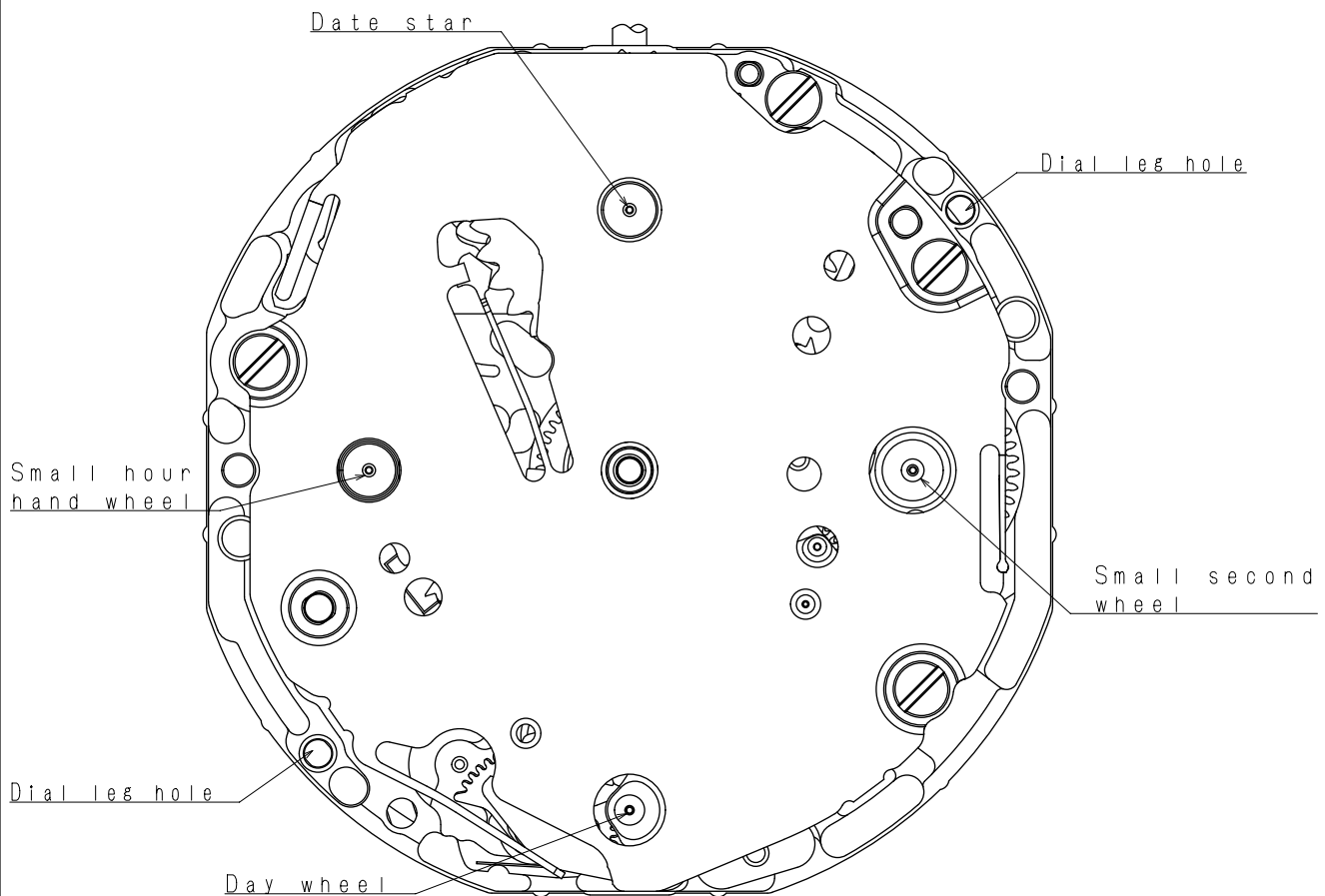
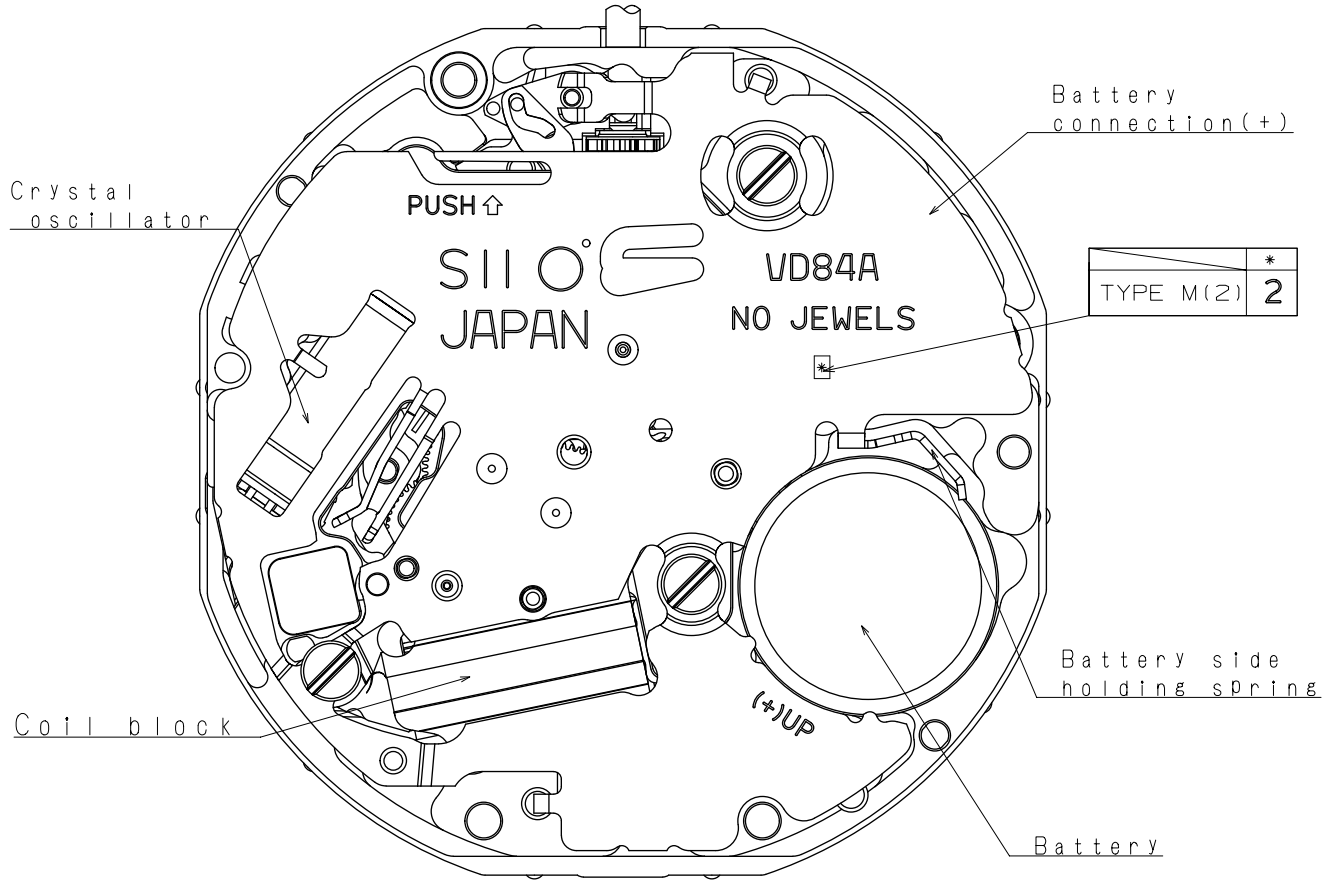
**Movement Specification - 2**

CAL. VD84A

OPERATION



Version: 1

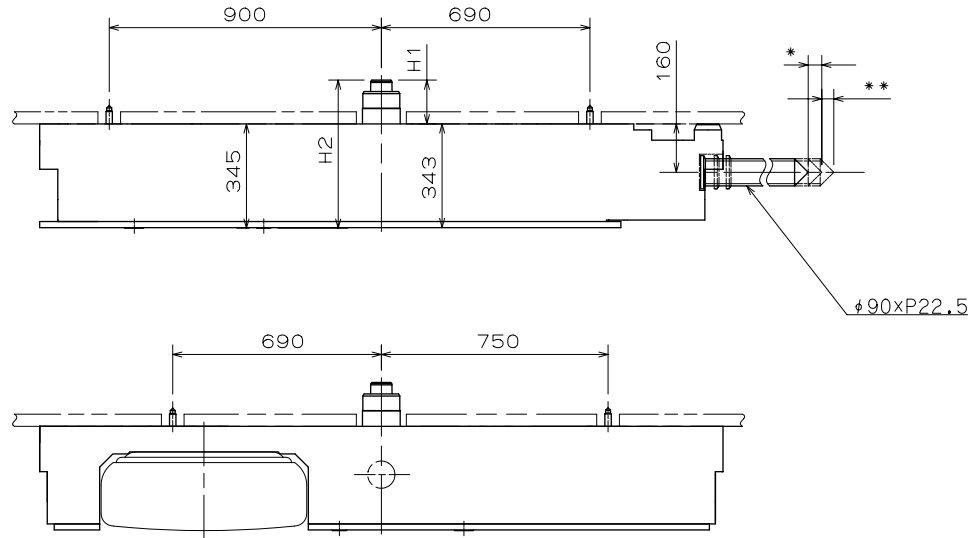


Scale : 5/1

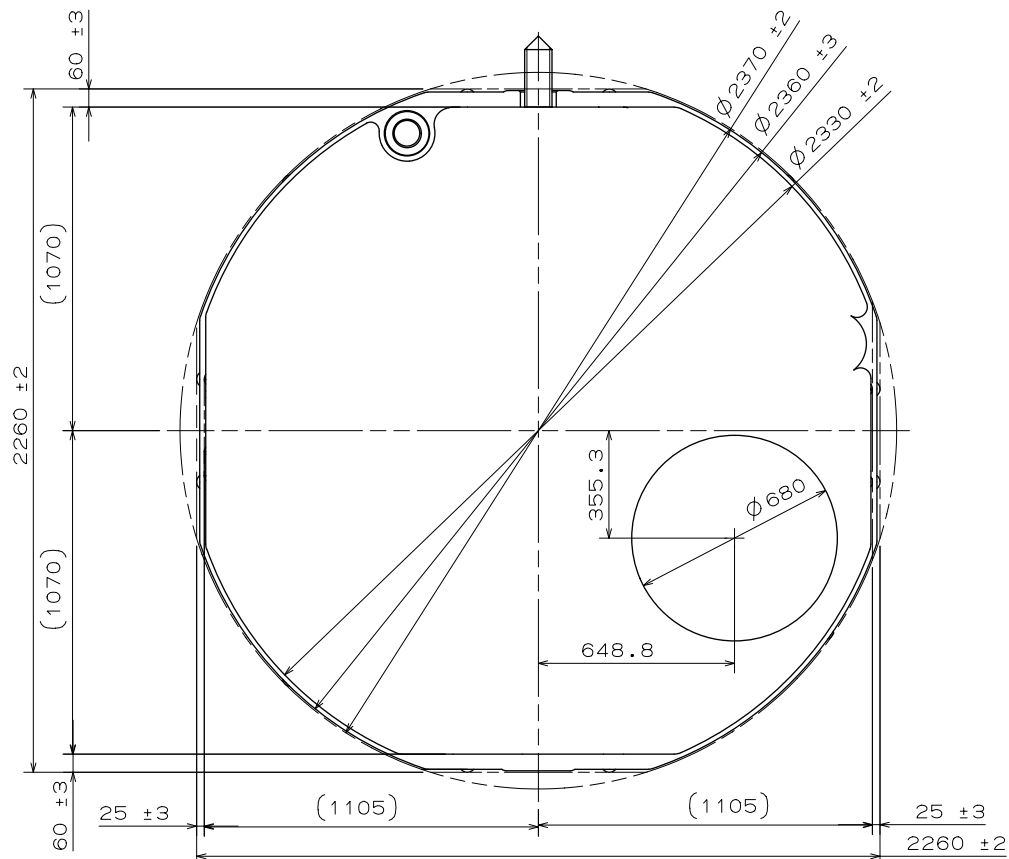
Unit : 1=1/100mm

Version:1

\* First pull out stroke 45  
\*\* Second pull out stroke 39.9



Center Post		TYPE M(2)
Maximum height from main Plate surface	H1	145
Total height incl. movement	H2	490



Scale : 4/1

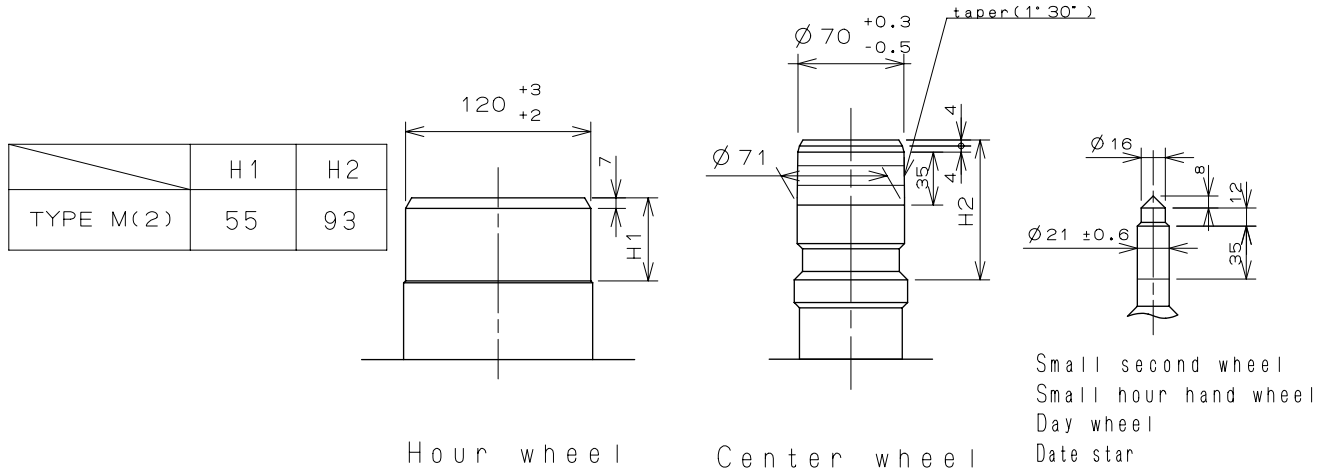
Unit : 1=1/100mm

Version : 1

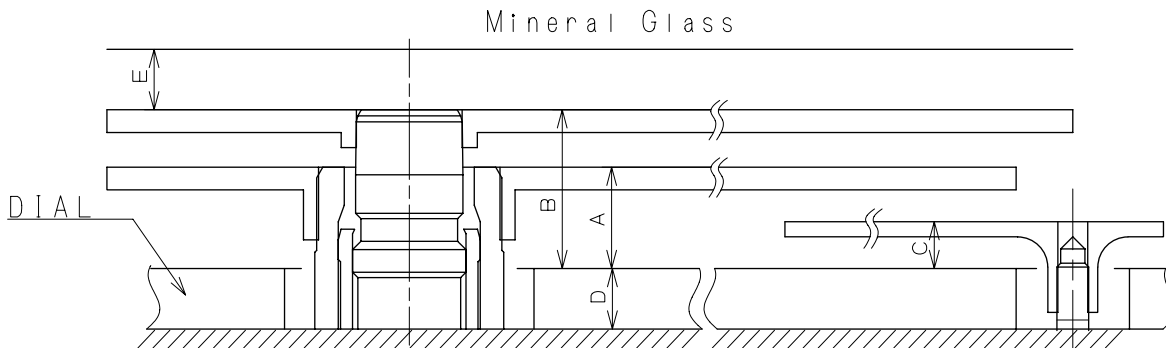
# Hand Fitting

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- \*Hour hand unbalance  $\leq 0.6 \mu\text{N}\cdot\text{m}$  (60mg·mm)
- \*Minute hand unbalance  $\leq 0.6 \mu\text{N}\cdot\text{m}$  (60mg·mm)
- \*Small second hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*24hour hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Day hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)
- \*Date hand unbalance  $\leq 0.05 \mu\text{N}\cdot\text{m}$  (5mg·mm)



Part name	Part No.
	TYPE M(2)
Hour wheel	0273 1690
Center wheel	0221 0690
Small second wheel	0240 1690
Small hour hand wheel	0157 1690
Day wheel	1019 1700
Date star	0970 1690

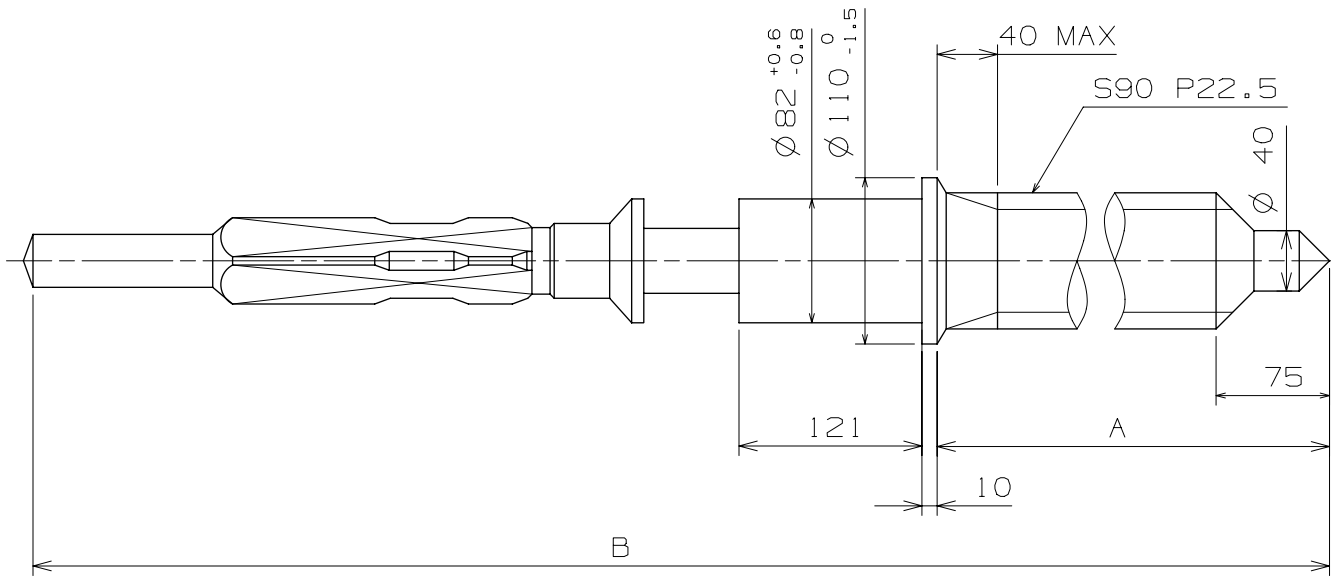


	A	B	C	D	E
TYPE M(2)	67	105	31	40	40

Scale : 20/1

Unit : 1=1/100mm

Version : 1



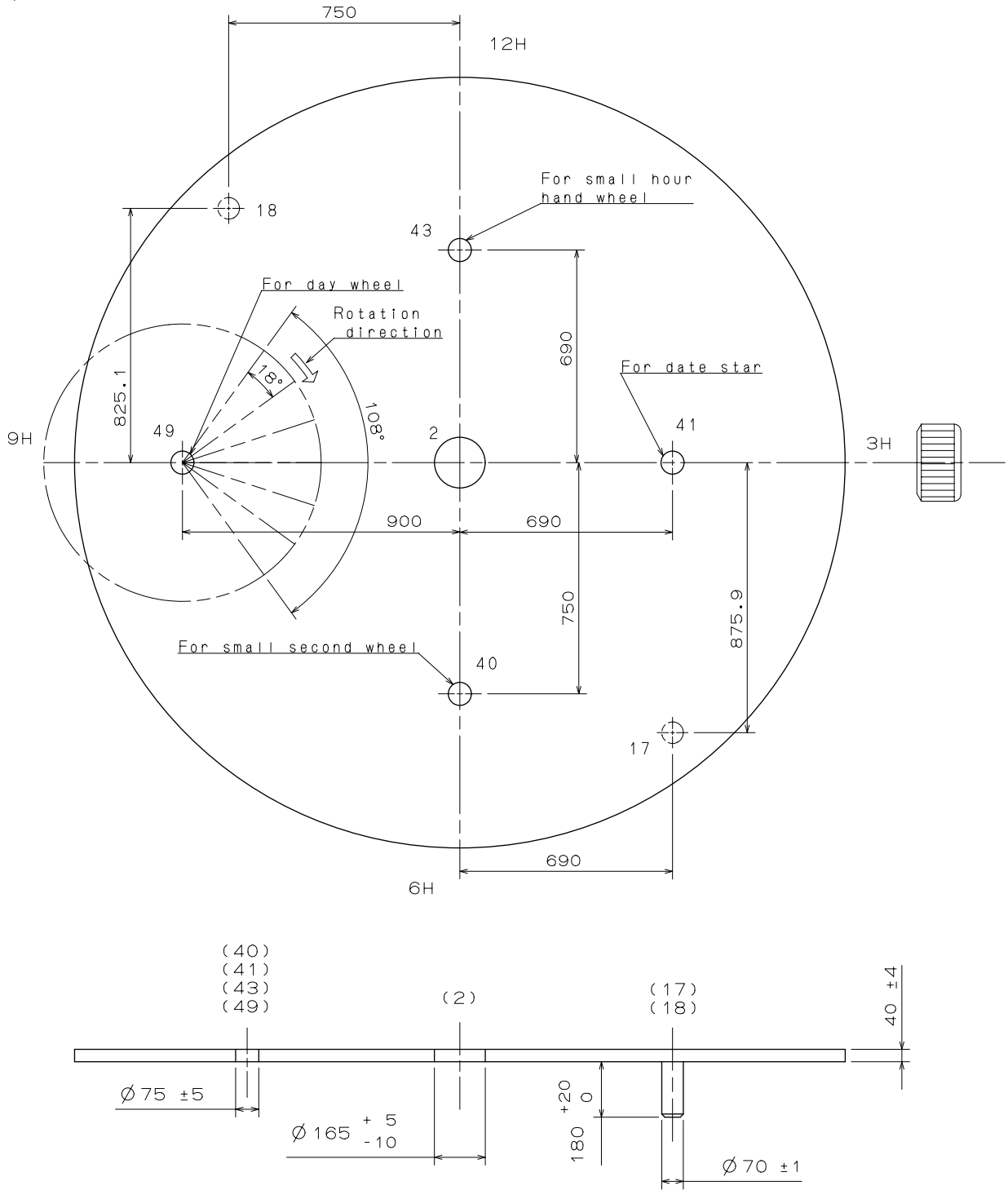
	Part. No.	A	B
TYPE A	0351 1770	1401	1999

Scale : 20/1

Unit : 1=1/100mm

Version:1

Operating area of DAY HAND  
Total: 108°  
1 step: 18°



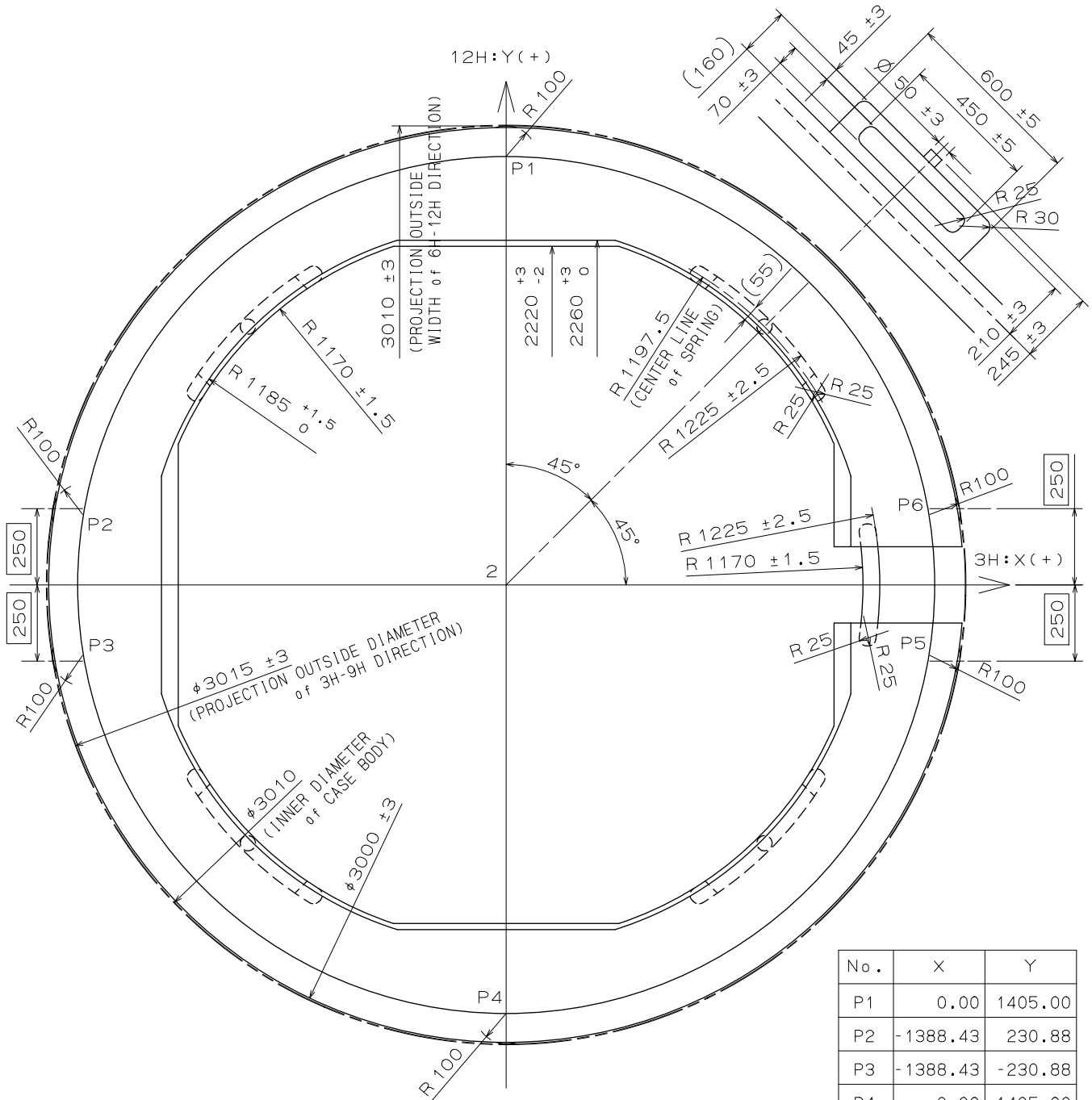
Scale : 5/1  
Unit : 1=1/100mm

Version: 2

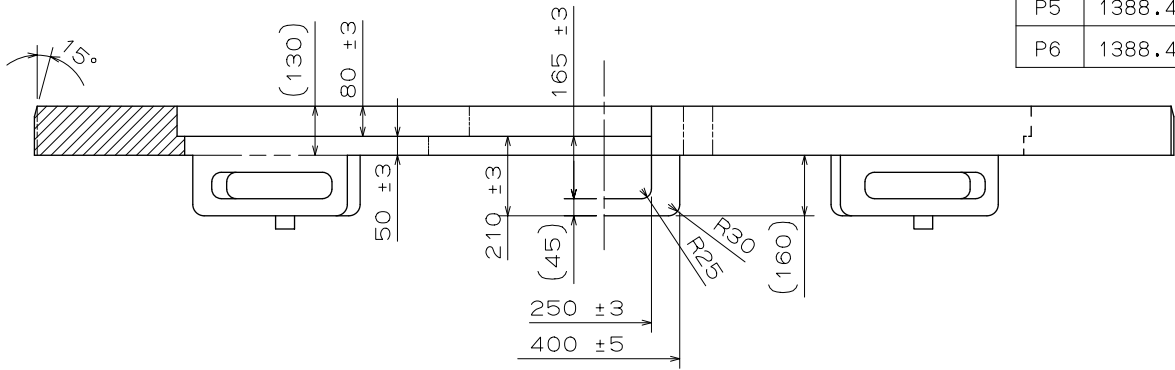


# Casing Ring

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No.	X	Y
P1	0.00	1405.00
P2	-1388.43	230.88
P3	-1388.43	-230.88
P4	0.00	-1405.00
P5	1388.43	-230.88
P6	1388.43	230.88

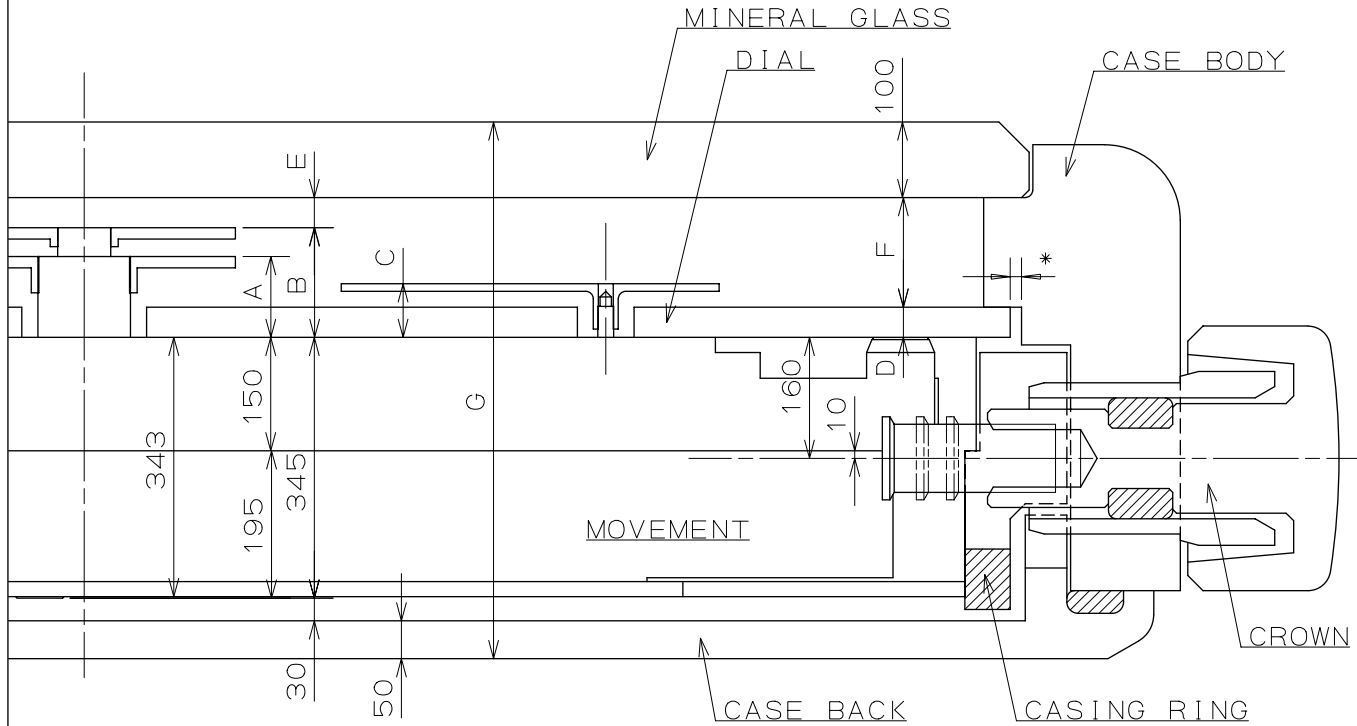


SECTIONAL VIEW of 6H(12H) DIRECTION

SIDE VIEW of 3H DIRECTION

Scale : 5/1  
Unit : 1=1/100mm

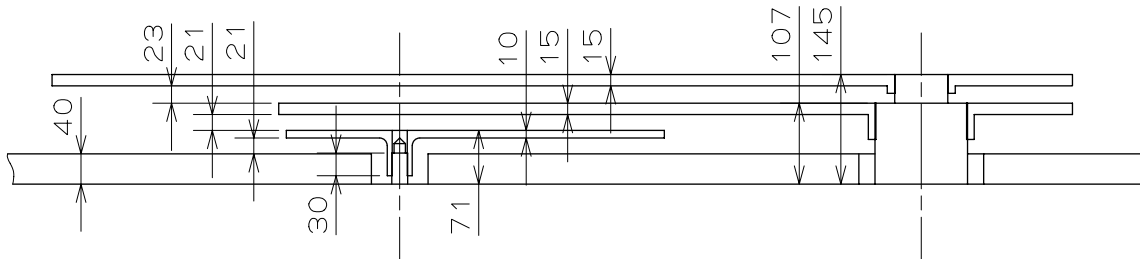
Version:1



	A	B	C	D	E	F	G
TYPE M	107	145	71	40	40	145	710

\*Recommended Dimension(Clearance of DIAL and CASE BODY):15

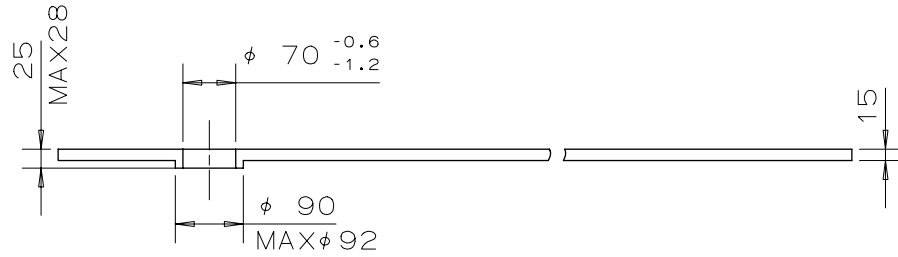
(DETAIL:TYPE M)



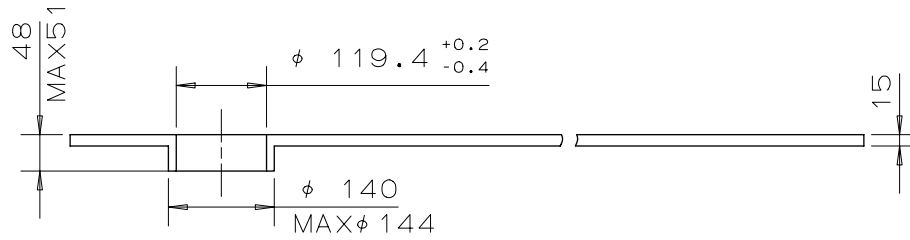
Scale : 10/1  
Unit : 1=1/100mm

Version:2

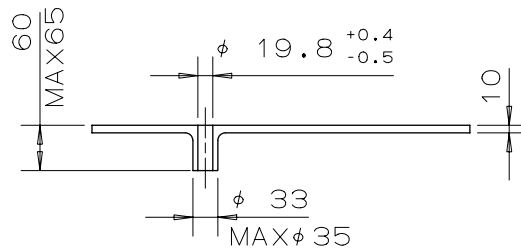
MINUTE



HOUR



SMALL SECOND  
24HOUR  
DAY  
DATE



Scale : 10/1

Unit : 1=1/100mm

Version : 1