EPSON
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Watch Movement Specification and Drawing

CALENDAR

Cal. VX12E

Movement Size

8 3/4”’

Casing Diameter

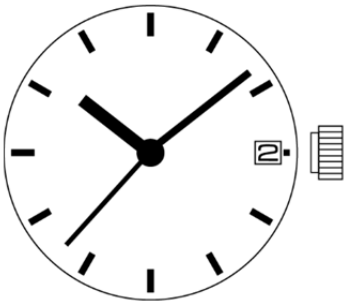
Ø19.4mm

Height

2.60mm

Battery Life

3 years



Date: 28/Feb./'14

Cal. VX12E

Cal. VX12E	Specifications	Date : 28/Feb./'14
		Rev. : 03

Analog Quartz 8 3/4''' Slim Movement / Three hands(H/M/S) with Calendar

1. MOVEMENT DIMENSIONS

Outside diameter	ϕ20.00mm × 18.00mm(3-9H)
Casing diameter	ϕ19.40mm × 18.00mm(3-9H)
Total height	2.60mm (including battery)

2. TIME STANDARD

Type of quartz oscillator	Tuning fork
Frequency of quartz oscillator	32,768 Hz
Accuracy	±20 seconds per month (on wrist)
Operating temperature range	−5℃ to +50℃
Regulation device	Nil (Pre-adjusted)

3. INDICATOR / FUNCTIONS

3 Hands	Hour / Minute / Second	
Calendar	Instant setting device for date calendar	
Reset switch		
Setting mechanism	Crown at normal position	: Free
	Crown pulled out 1st click	: Instant date change
	Crown pulled out 2nd click	: Time setting / Reset

4. FEATURES

Jewels	0 Jewels	
Anti-magnetism	Over 1600A/m (Direct current magnetic field)	
Maximum unbalance of hands	Hour hand	: 0.5μN・m
	Minute hand	: 0.6μN・m
	Second hand	: 0.07μN・m

5. BATTERY

Type / Size	Silver oxide battery / ϕ7.9mm × t 1.6mm
Recommended battery	SR716SW (Maxell, Sony)
Nominal voltage	1.55 V
Battery life	Approx. 3 years
Driving current consumption	Approx. 0.80μA
Operation stopping voltage	0.9 V

6. SEPARATED PARTS (Parts code)

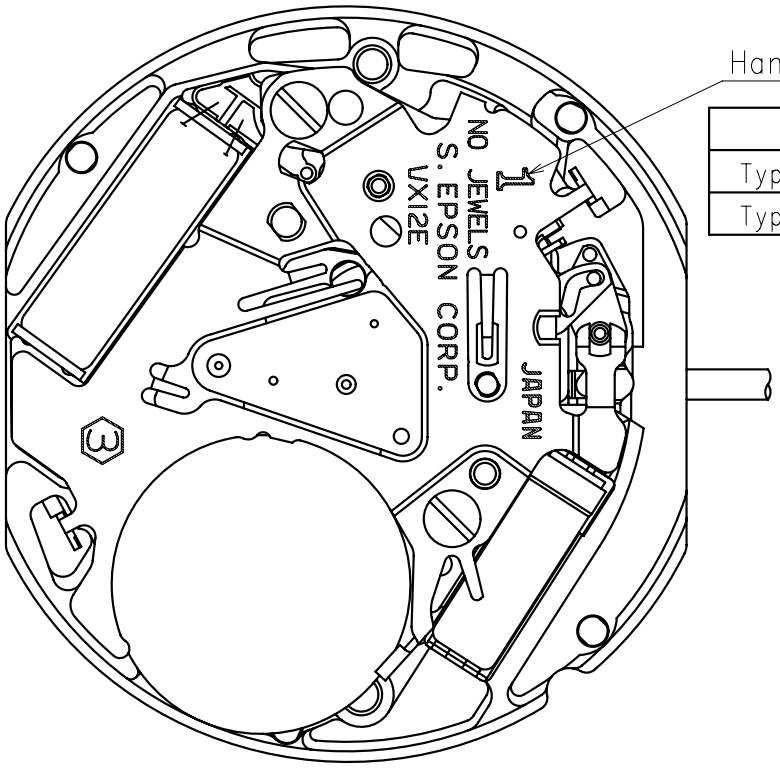
Hand setting stem	0351177 or 0351578
Battery	SR716SW

7. TEST OF ACCURACY

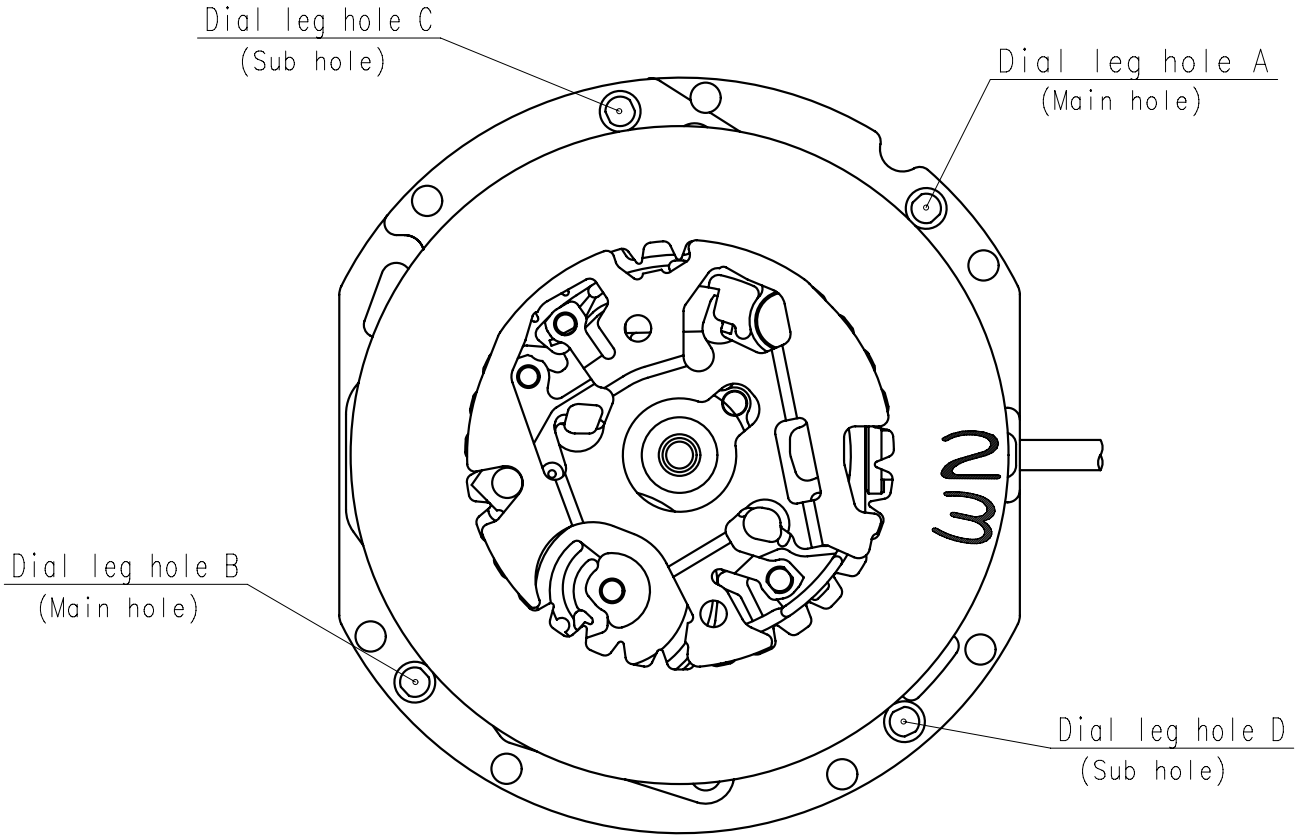
Equipment to be used	SEIKO quartz tester QT-99,
	Greiner quartz timer-C , Witschi Q-tester 4000
Duration of measurement	10 seconds
Microphone to be used	Electromagnetic detection type

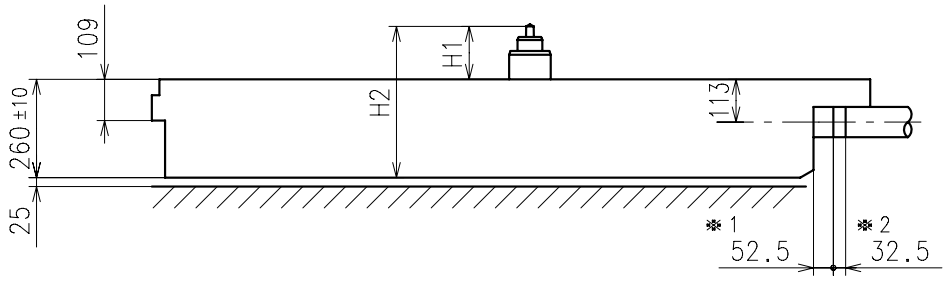
All specifications are subject to change without notice.

Cal. VX12E	Appearance	Date:28/Feb./'14
		Rev.:04



	Mark
Type S (1)	1
Type M (2)	2

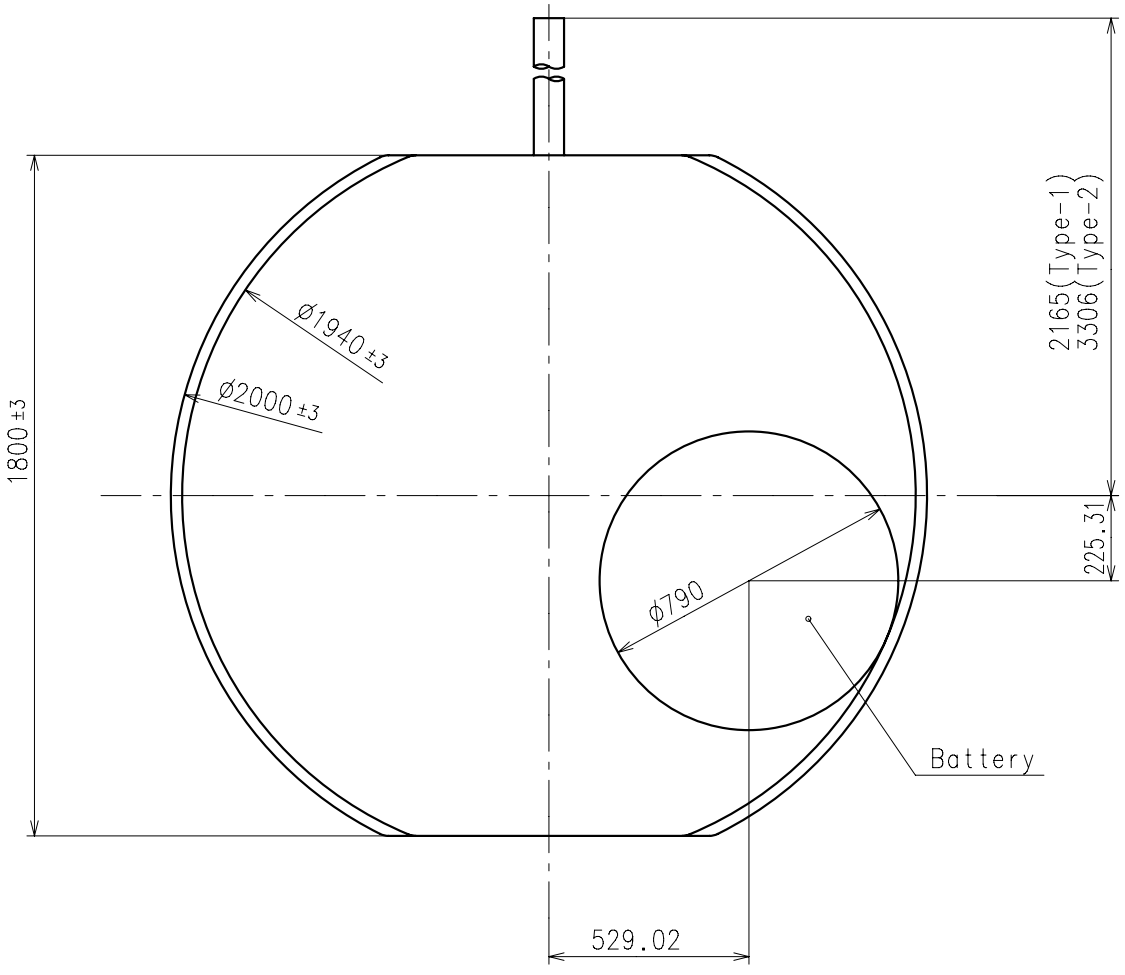




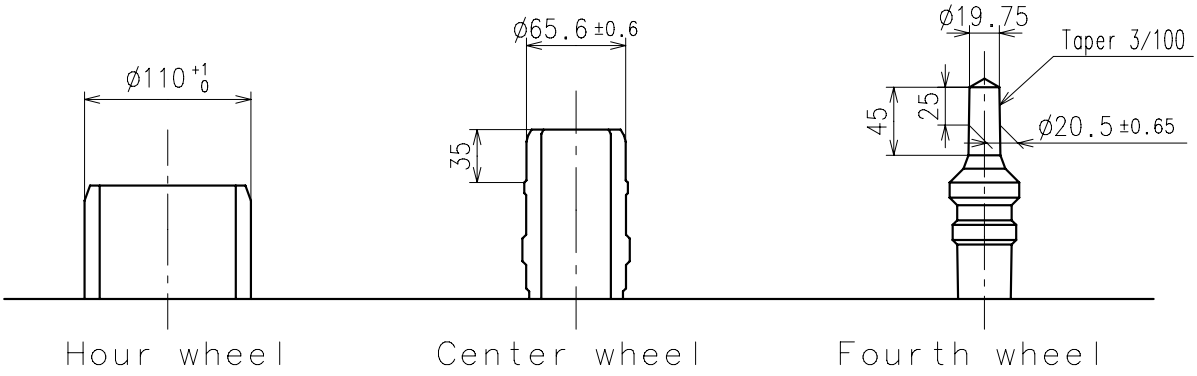
Center post		Type S (1) VX12E1*	Type M (2) VX12E2*
Maximum height from dial support	H1	140	182
Total height including movement	H2	400	442

※1:First pullout stroke

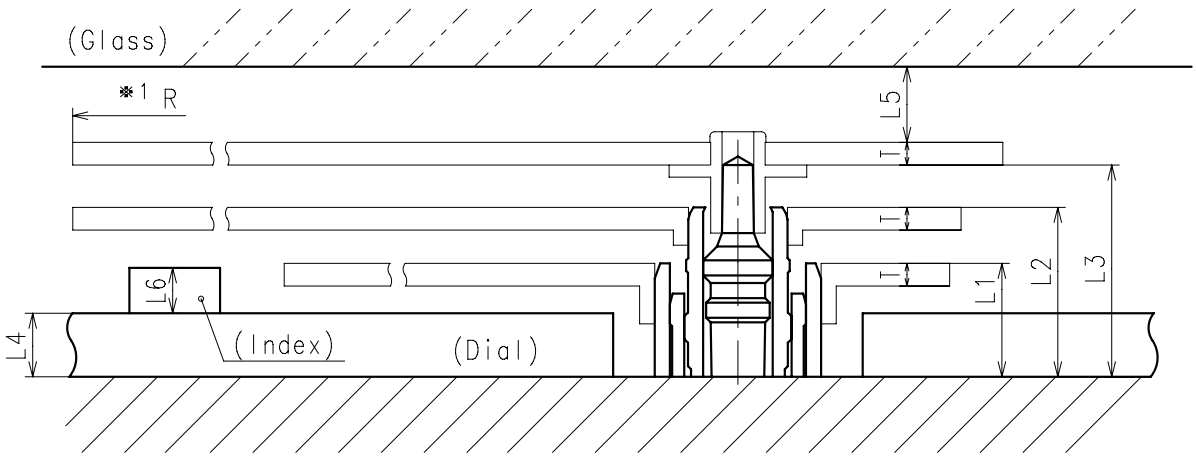
※2:Second pullout stroke



※ Hour hand unbalance ≦ 0.5μ N・m (50μ g・m)
※ Minute hand unbalance ≦ 0.6μ N・m (60μ g・m)
※ Second hand unbalance ≦ 0.07μ N・m(7μ g・m)



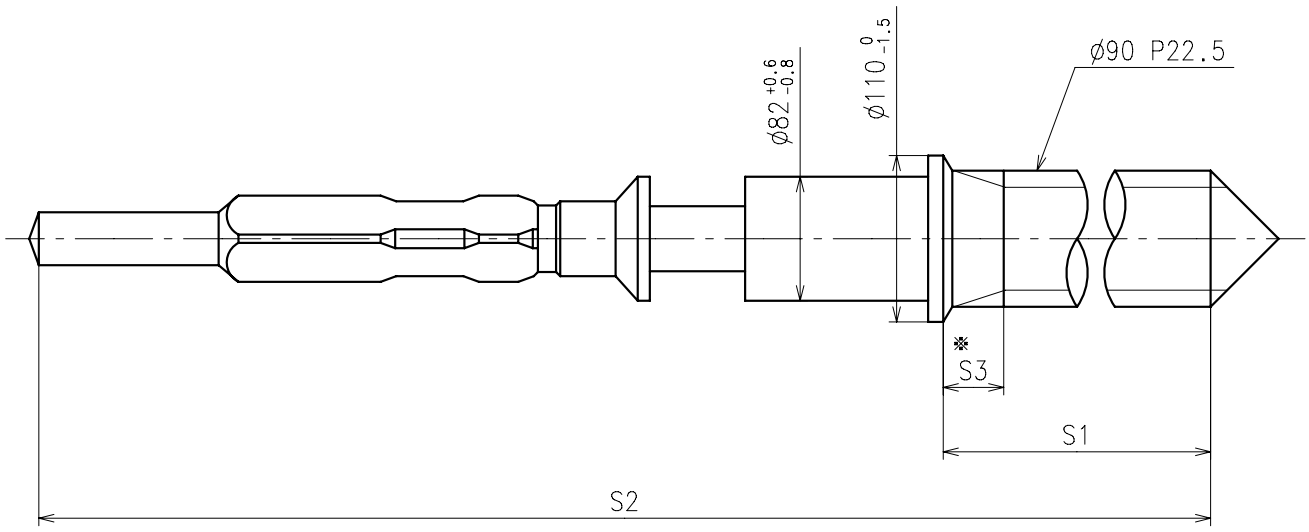
	Parts No.		
	Hour wheel	Center wheel	Fourth wheel
Type S (1) VX12E1*	0271929	0221929	0241929
Type M (2) VX12E2*	0271942	0221904	0241904



	L1	L2	L3	L4	L5	L6	T	※1 R
Type S (1) VX12E1*	75	112	140	40	MIN: 50	MAX: 30	15	MAX: 1250
Type M (2) VX12E2*	105	154	182	40	MIN: 50	MAX: 60	15	MAX: 1250

※1:It is the size taken into consideration for hands attachment.
Please observe some standard value specified in unbalance when using long hands.

Cal. VX12E	Hand setting stem	Date:28/Feb./'14
		Rev.:04



※ Not threaded

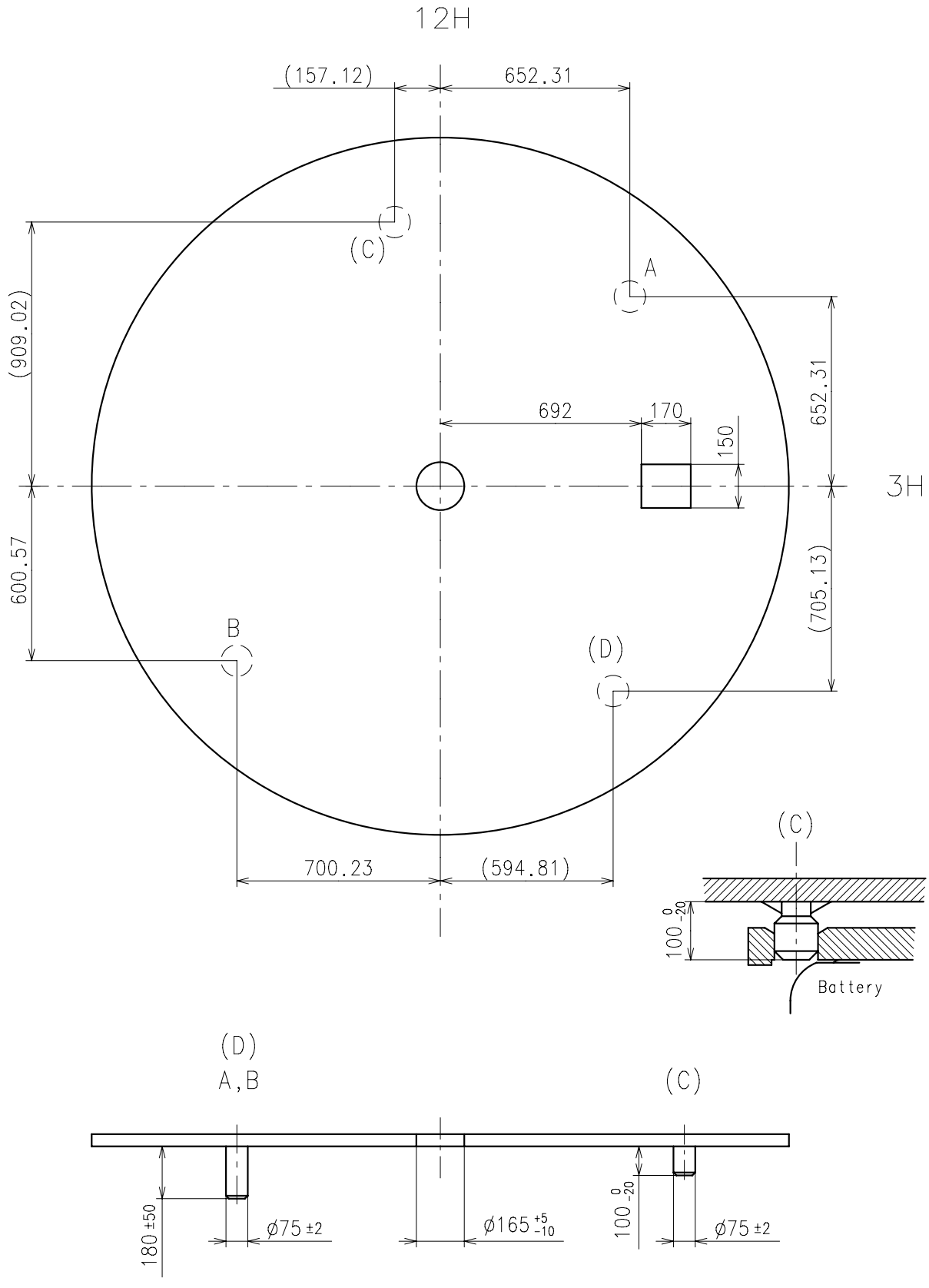
	Part No.	S1	S2	※ S3
Type-1 (Standard)	0351177	1366	1964	60
Type-2	0351578	2507	3105	650

Material : Steel

Hardness : Vickers 600±50

Unit : 1=1/100mm

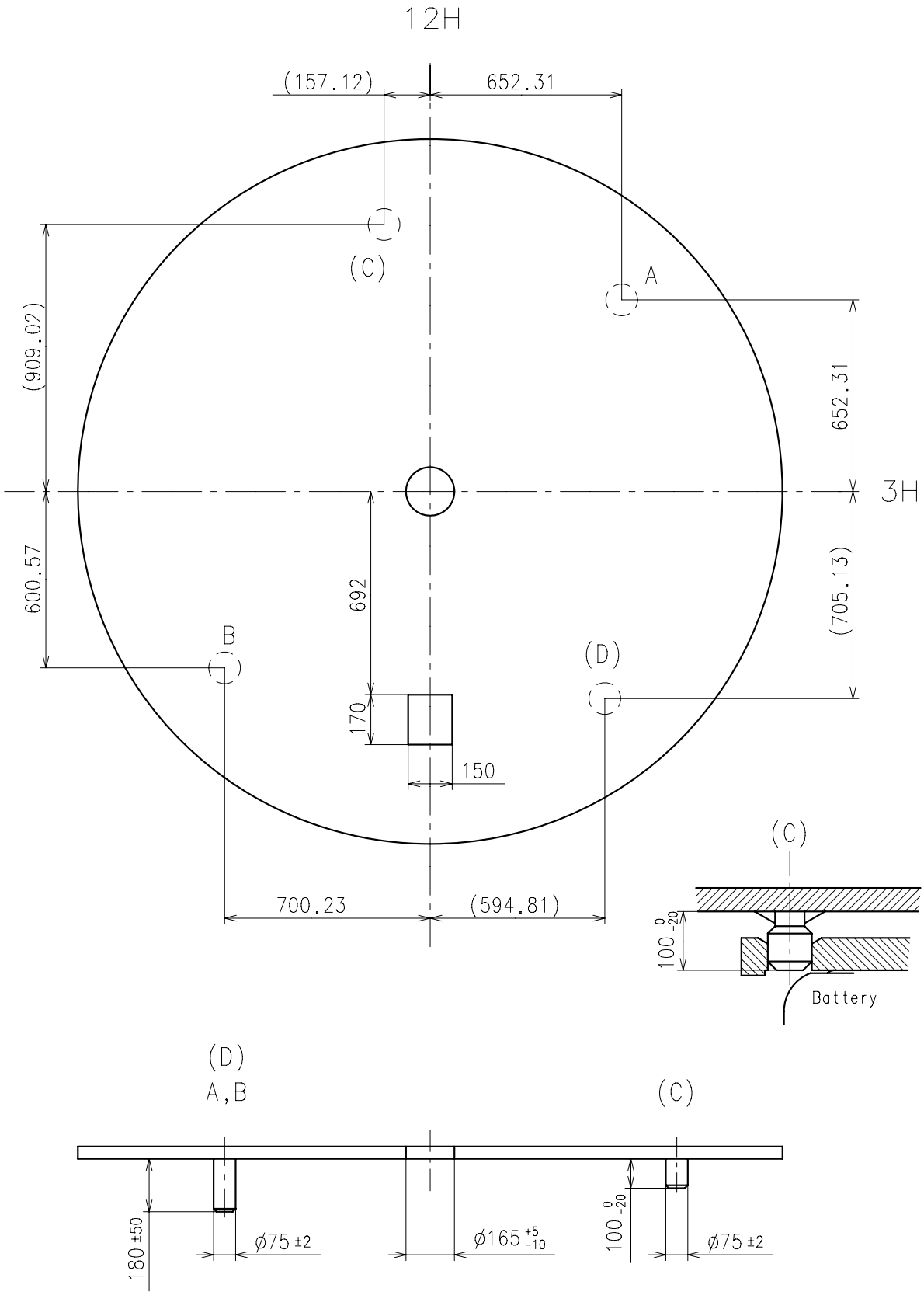
Cal. VX12E	Dial-01	Date:28/Feb./'14
		Rev.:02



※Use dial leg A-B or (C-D)

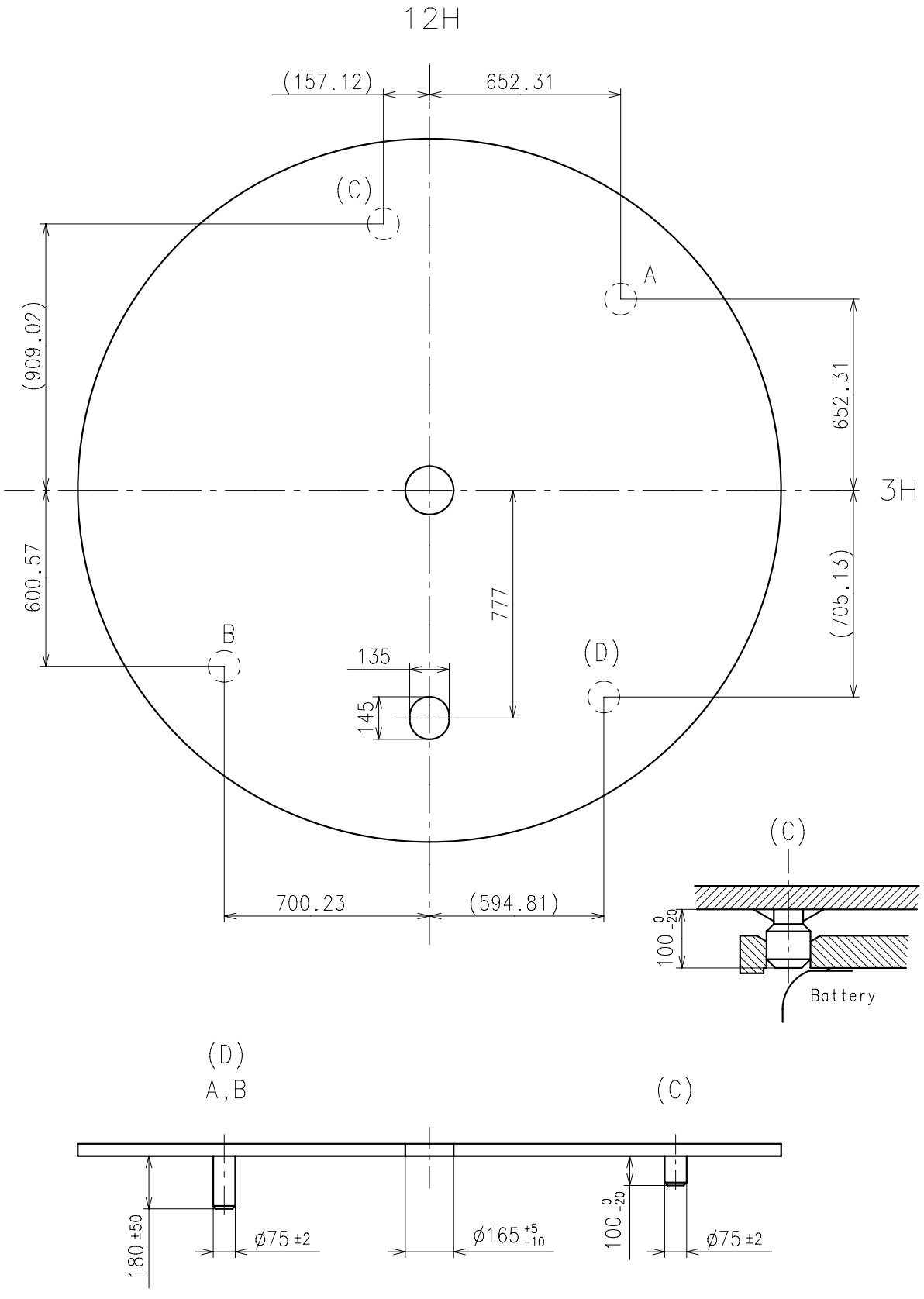
Unit : 1=1/100mm

Cal. VX12E	Dial-02	Date:28/Feb./'14
		Rev.:01



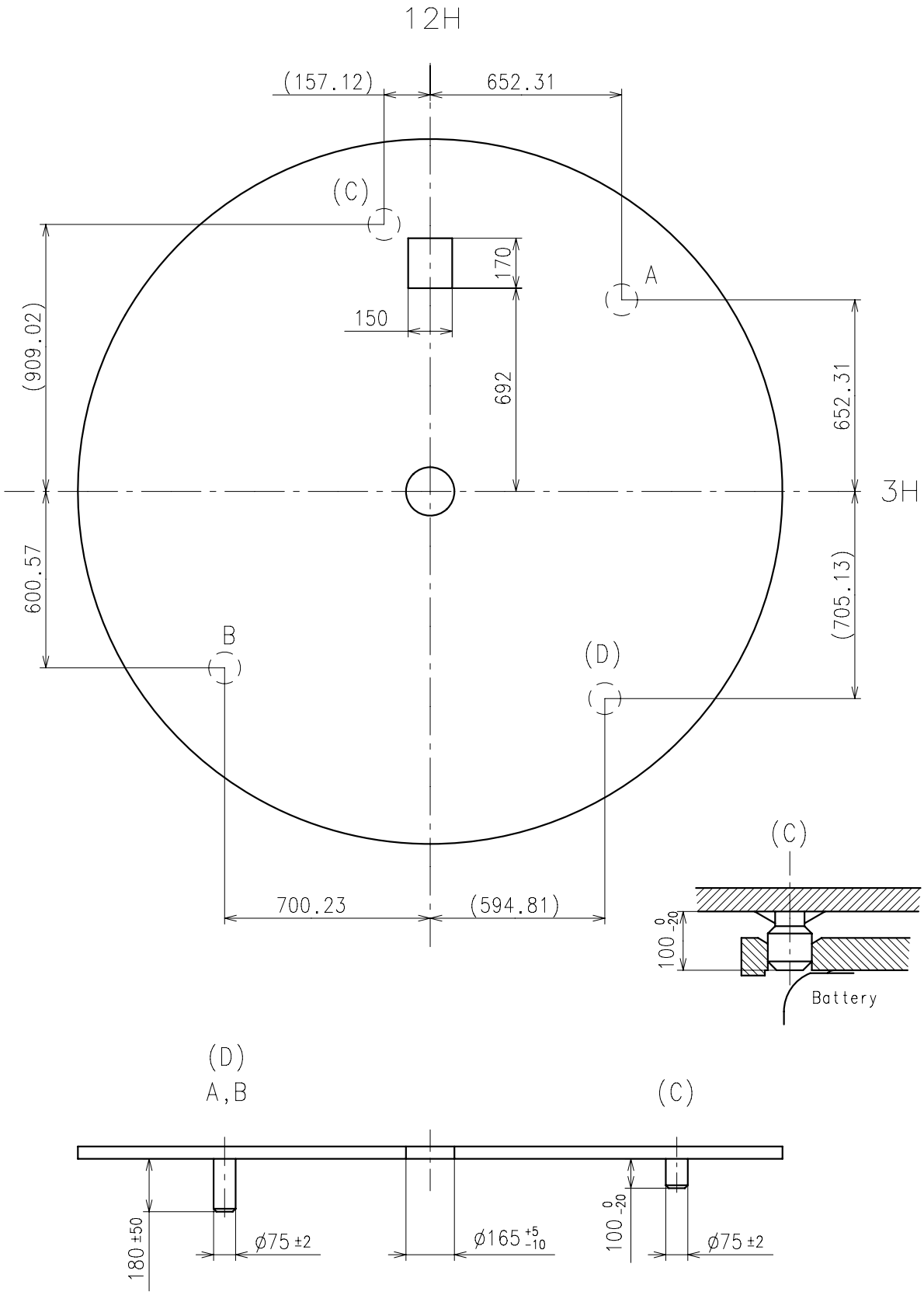
※Use dial leg A-B or (C-D)

Cal. VX12E	Dial-04	Date:28/Feb./'14
		Rev.:01



※Use dial leg A-B or (C-D)

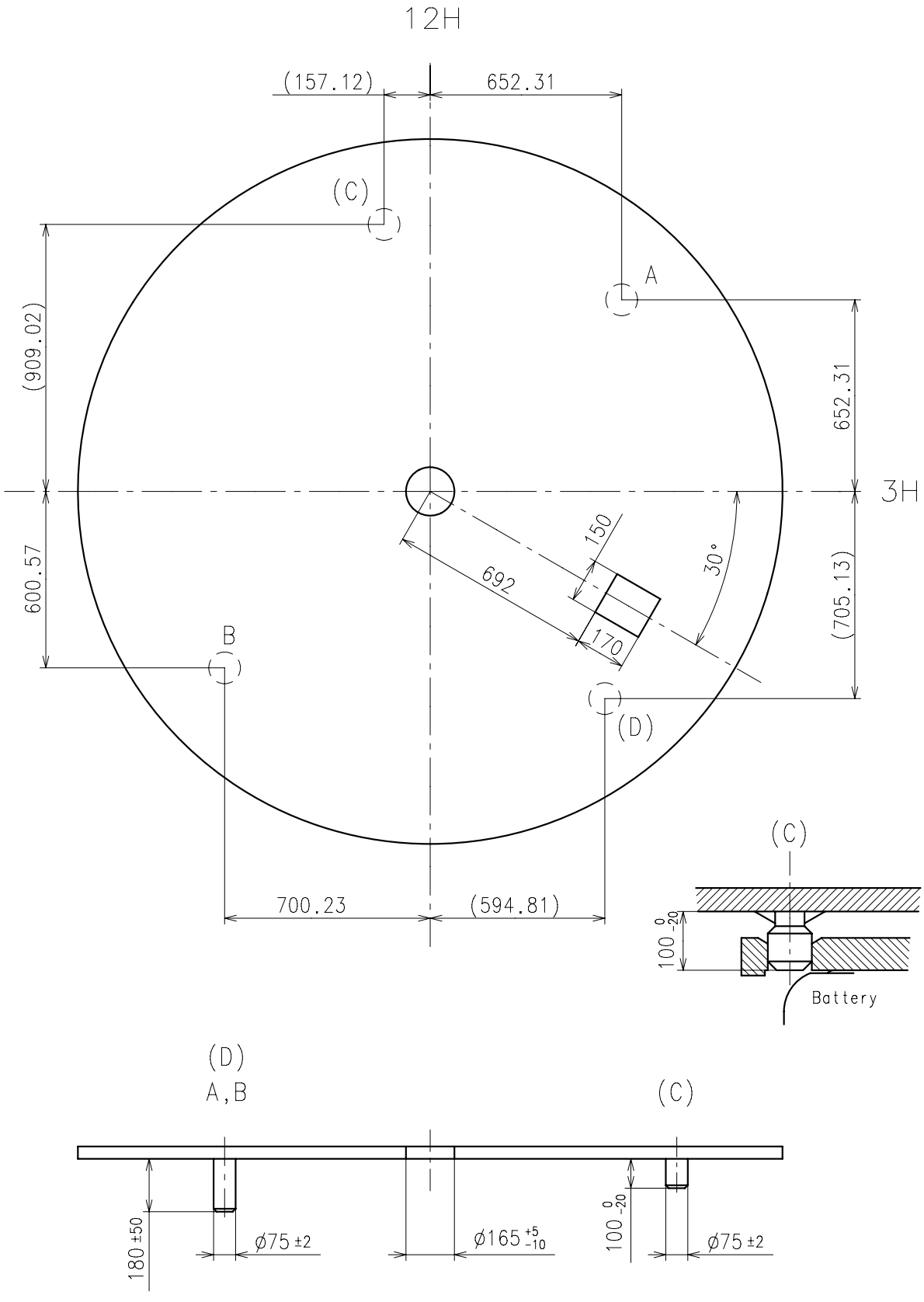
Cal. VX12E	Dial-05	Date:28/Feb./'14
		Rev.:01



※Use dial leg A-B or (C-D)

Unit : 1=1/100mm

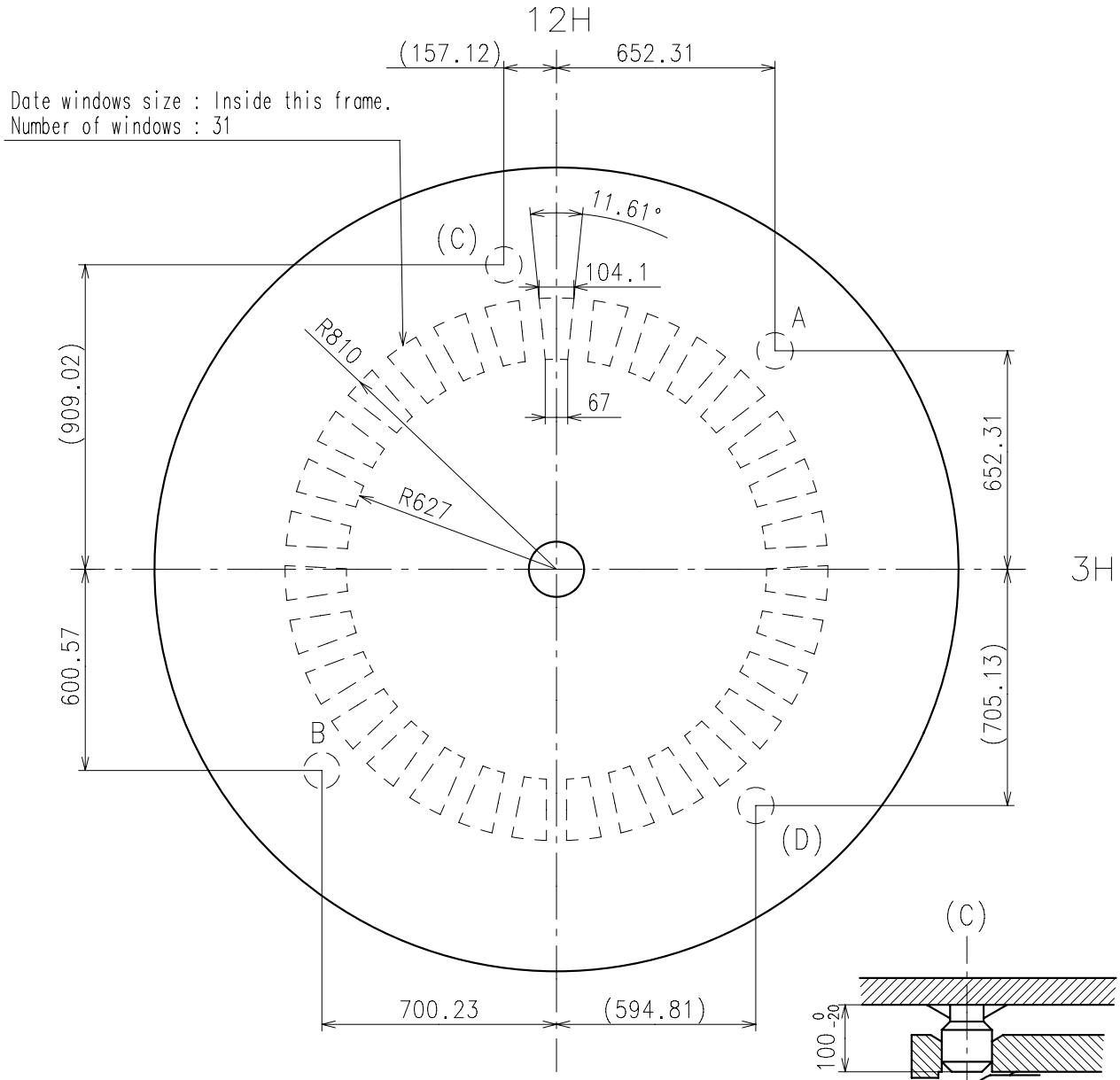
Cal. VX12E	Dial-06	Date:28/Feb./'14
		Rev.:01

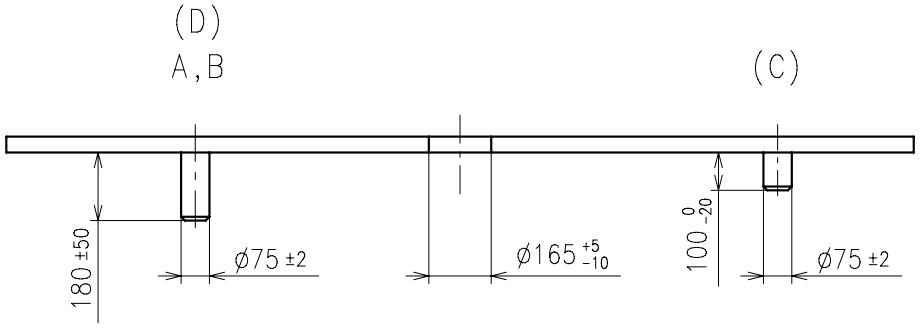


※Use dial leg A-B or (C-D)

Cal. VX12E	Dial-08	Date:28/Feb./'14
		Rev.:01

Free form of date windows are possible within the ⬚ frame.
(Circle or square and etc.)

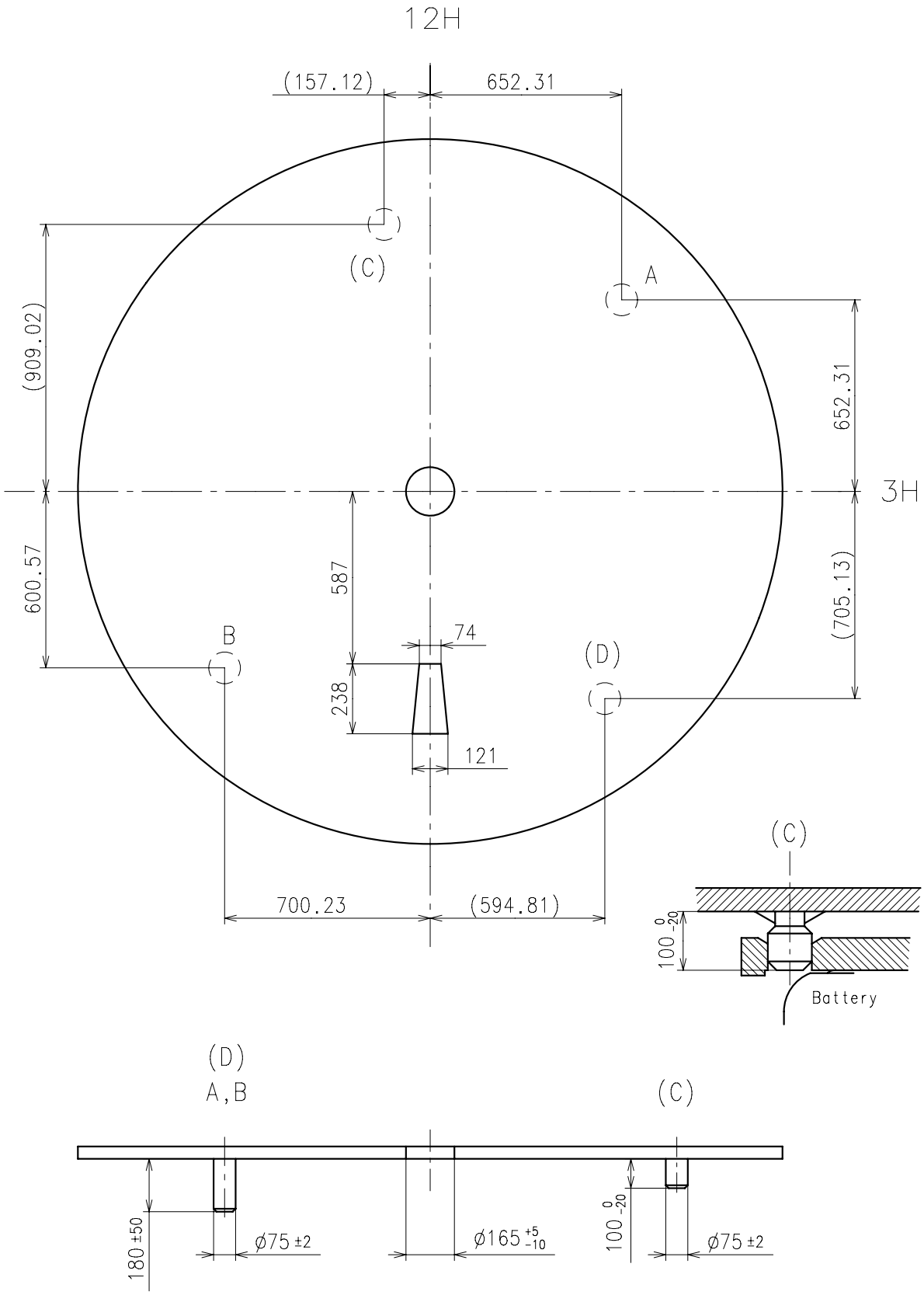




※Use dial leg A-B or (C-D)

Unit : 1=1/100mm

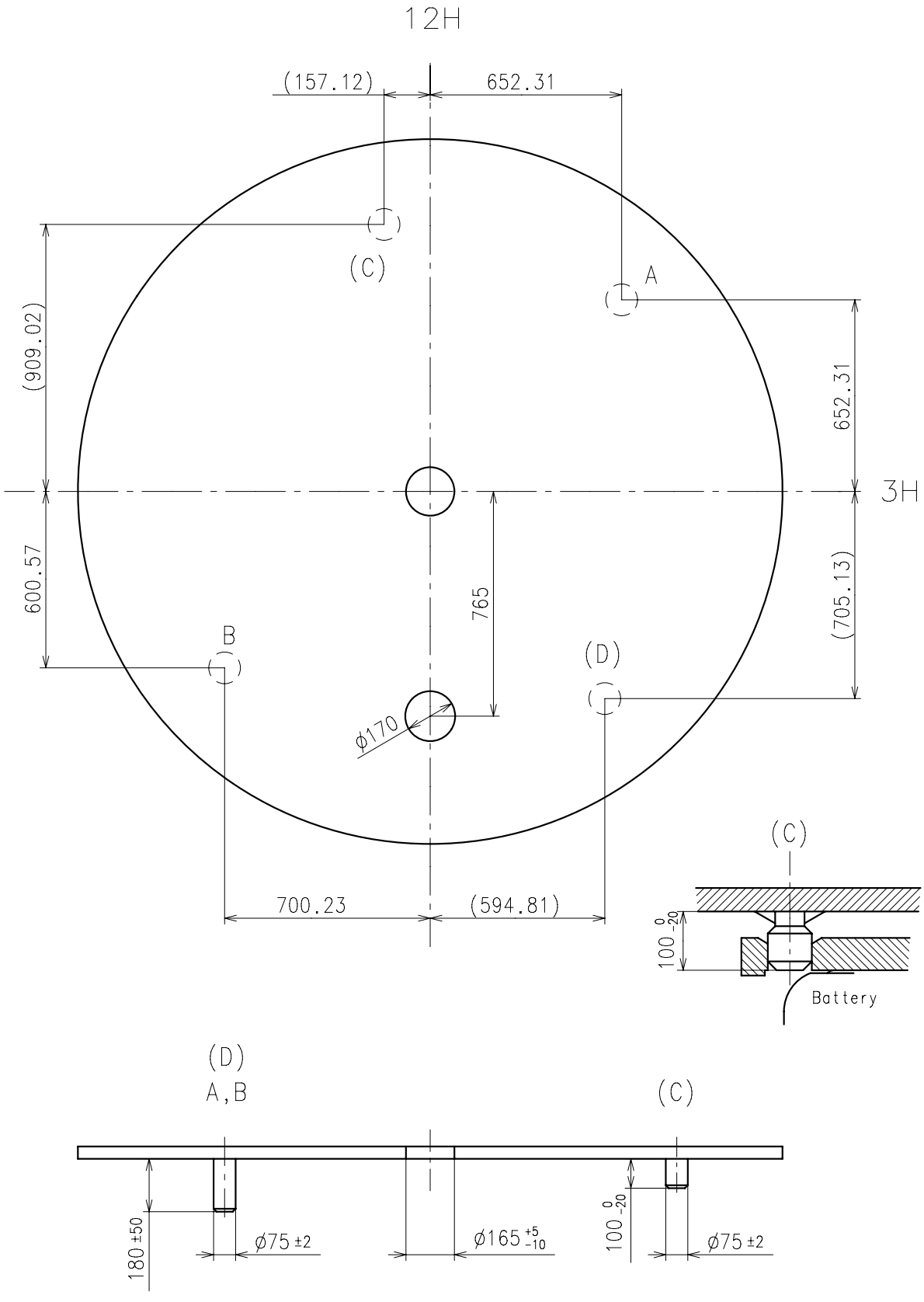
Cal. VX12E	Dial-09	Date:28/Feb./'14
		Rev.:01



※Use dial leg A-B or (C-D)

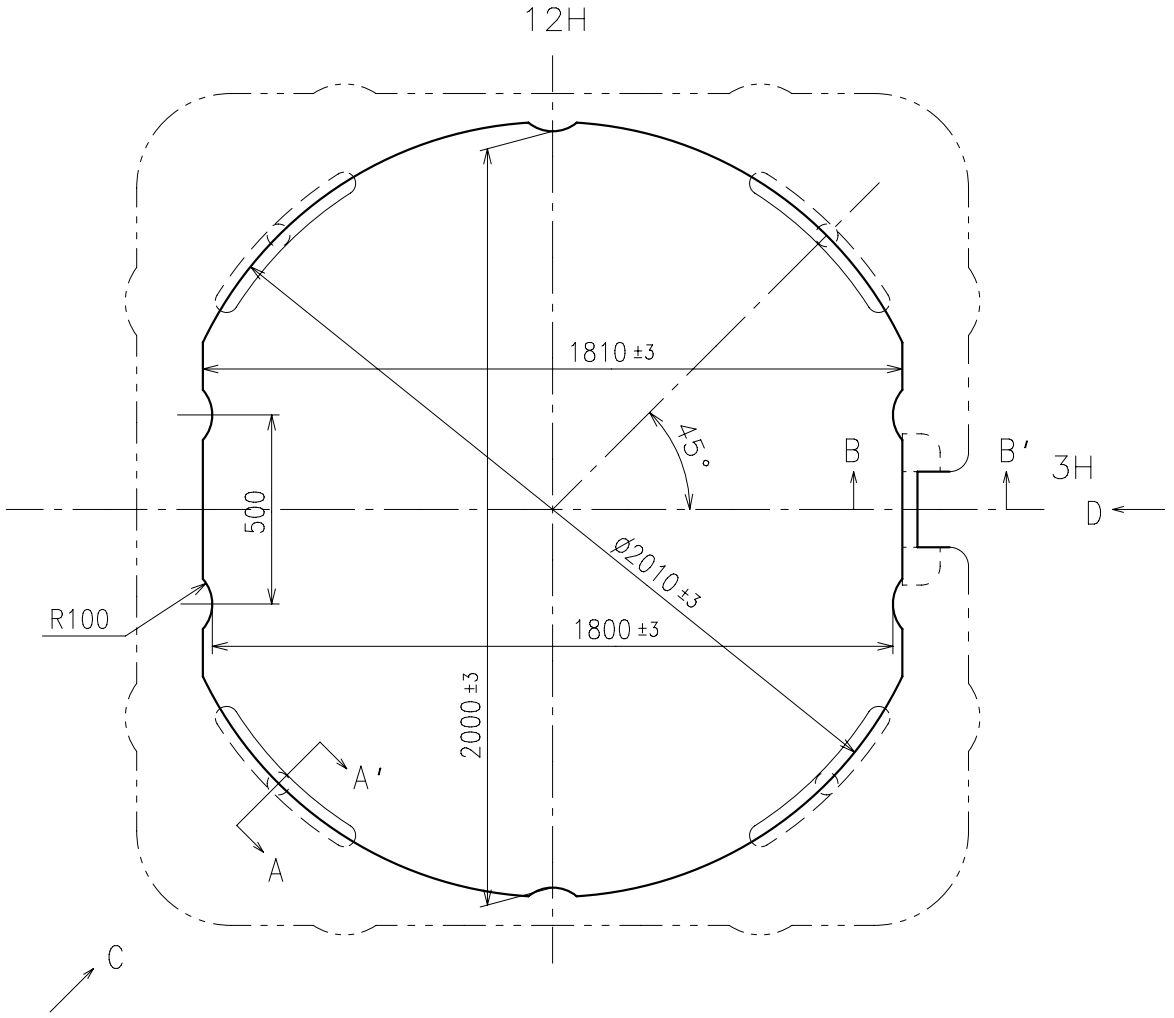
Unit : 1=1/100mm

Cal. VX12E	Dial-10	Date:28/Feb./'14
		Rev.:01

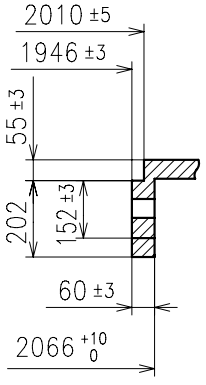


※Use dial leg A-B or (C-D)

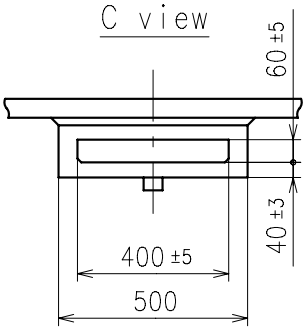
Cal. VX12E	Casing ring	Date:28/Feb./'14
		Rev.:02



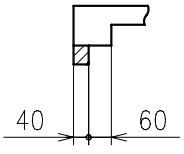
A-A' section



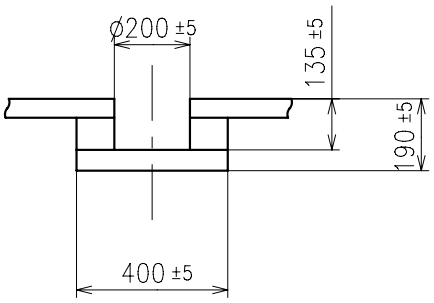
C view



B-B' section



D view



Unit : 1=1/100mm