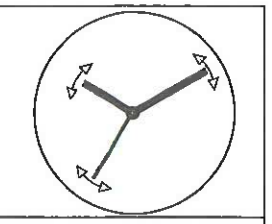
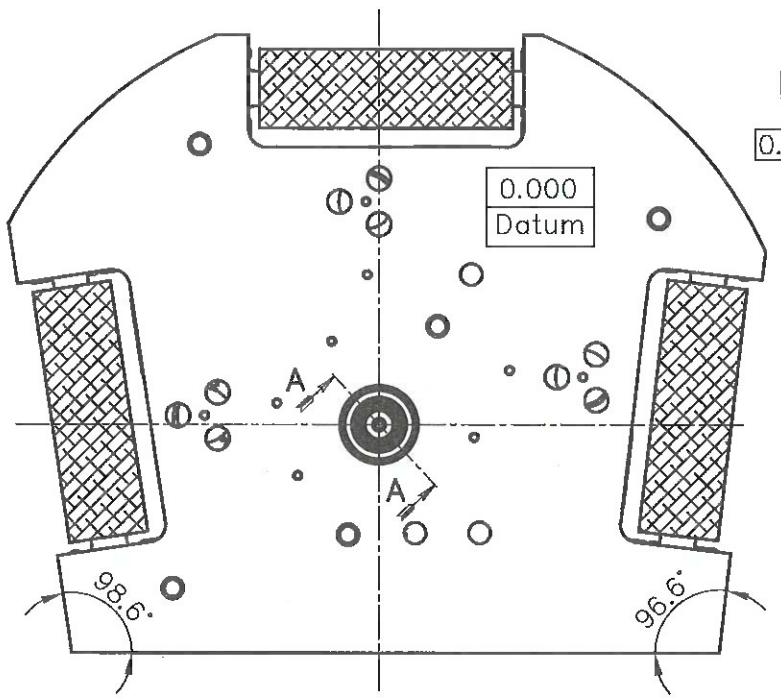
WATCH DIVISION

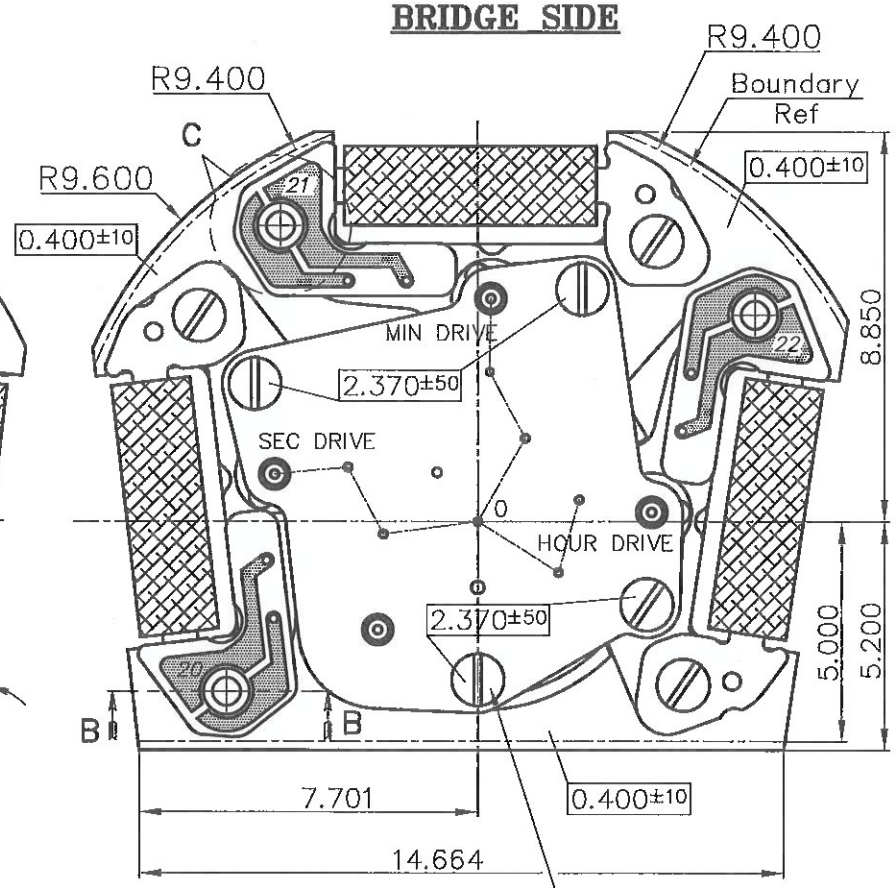
TECHNICAL DATA FOR TITAN C3H MOTOR (3 HANDS–1° Bi–DIRECTIONAL) METAL



DIAL SIDE



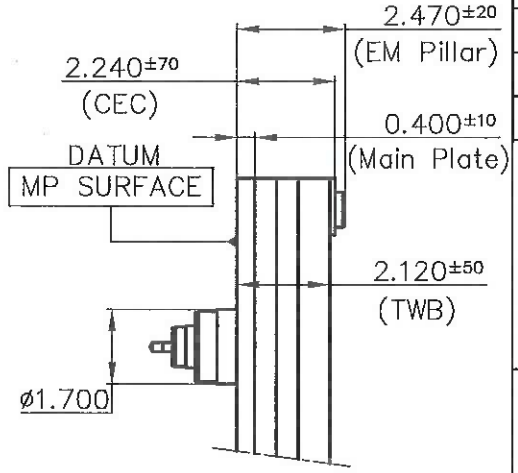
BRIDGE SIDE



Note: TWB Screw(4 Pos) relief to be provided in the PCBA

BRIDGE SIDE CO–ORDINATES
PILLAR LOCATIONS

POS	X–AXIS	Y–AXIS	ø/Radius
0	0.000	0.000	–
22	6.304	4.691	
21	–4.484	6.720	
20	–5.711	–3.866	



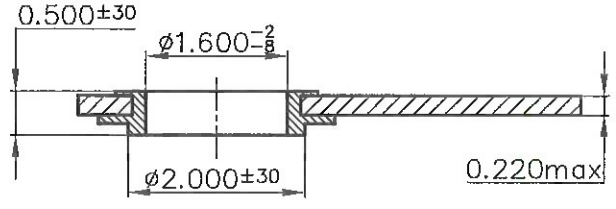
Functions	3Hands		
	Hour	Min	Sec
Angular rotation per pulse	1°	1°	1°
No of steps for 360° rotation	360	360	–
Direction	BI–DIRECTIONAL		
Movement size	ø19.200x14.664x14.050		
Movt Thickness (TWB)	2.120±50		
No. of jewels	7		
Coil resistance	1600±70 Ohms		
Effective temperature range	–10°C to +55°C		
Shock resistance	As per NIHS 91/10		
Resistance to magnetic field	20 Oe		

HAND	DESCRIPTION	HH	MH	SH
	Imbalance mg.mm	60	60	20
	Weight mg (max).	20	20	10
	Length mm (max)	14	14	14
	Backlash (max)	2°	2°	2°

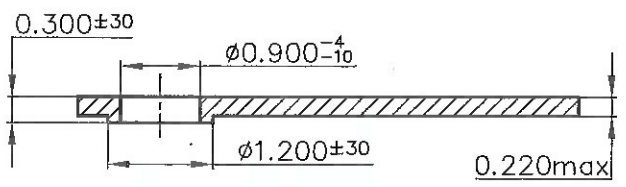
Notes:
1) All dimensions are in mm.
2) Tolerances in microns.
3) Support pin to be provided while fixing hands. Hand fixing load to be applied gradually.
4) Motor parameters were tested using KEYSIGHT N6705B DC Power Analyzer

HAND DETAILS (Scale 12:1)

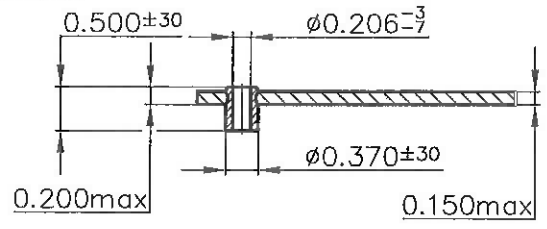
HOUR HAND



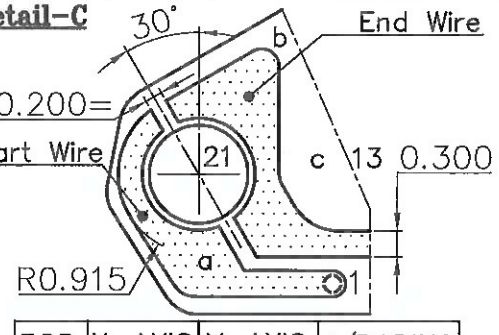
MINUTE HAND



SECOND HAND

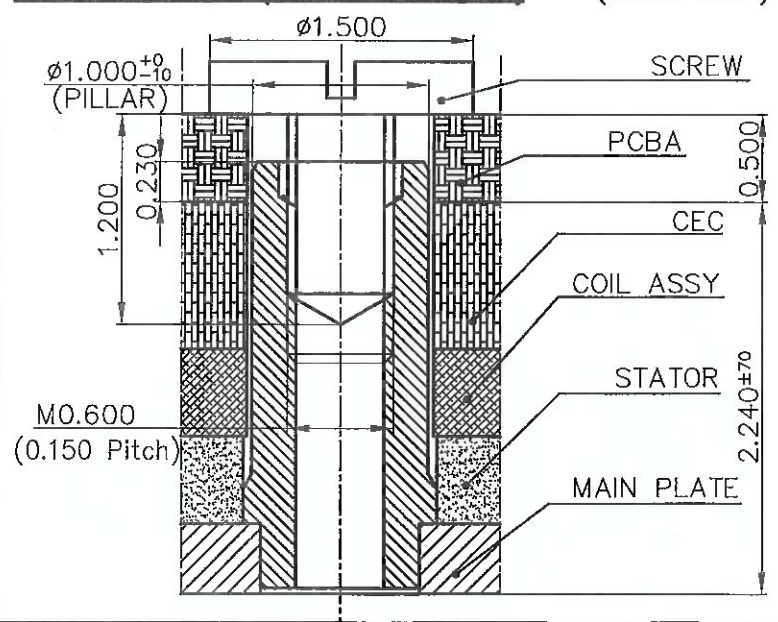


CEC Pos. 20, 21, 22 Detail–C (Scale 12:1)

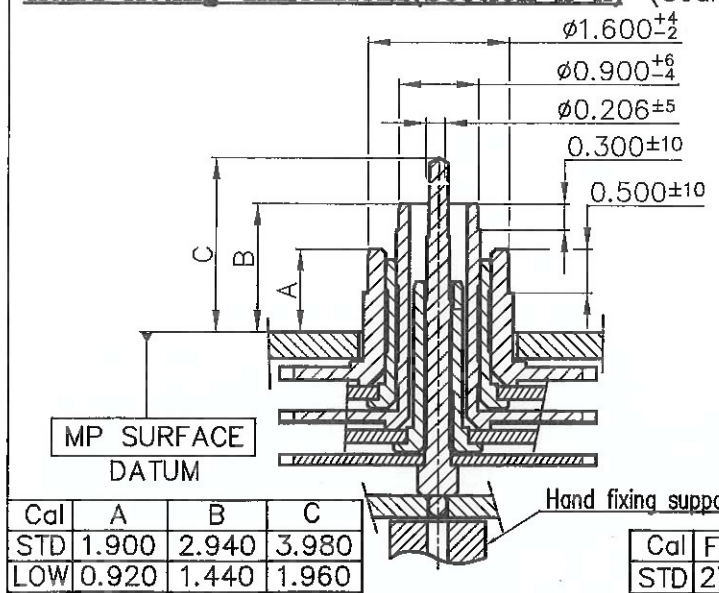


POS	X–AXIS	Y–AXIS	ø/RADIUS
21	0.000	0.000	ø1.120+25/0
a	–0.052	–1.150	R0.250
b	0.715	1.231	R0.200
c	1.165	0.008	R0.250
13	1.600	–0.046	R0.600
1	1.522	–1.250	R0.150

Section "B–B" (Pos. 20, 21, 22) (Scale 24:1)



Hand fitting dimensions(Section A–A) (Scale 12:1)



Cal	A	B	C
STD	1.900	2.940	3.980
LOW	0.920	1.440	1.960

Cal	FMA No
STD	2792883
LOW	2792893

Ind	Alteration	Date	Sign
a	Low pipe height & FMA details added	17.08.22	RTMK
	No of Jewels 7 was 0		

	Prepared	Checked	Approved
Name			
Date		17/8/22	17/8/22

T–2959 a

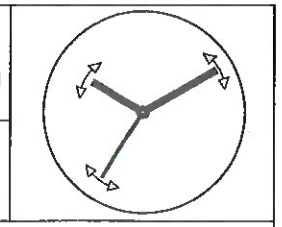
Sheet 1 of 2 (Scale 6:1)

K:\Drawings\Motors\Motor–C20 & C3H\2D\Mass\General\Tech Data_Metal.dwg

TITAN COMPANY LIMITED HOSUR 635 126

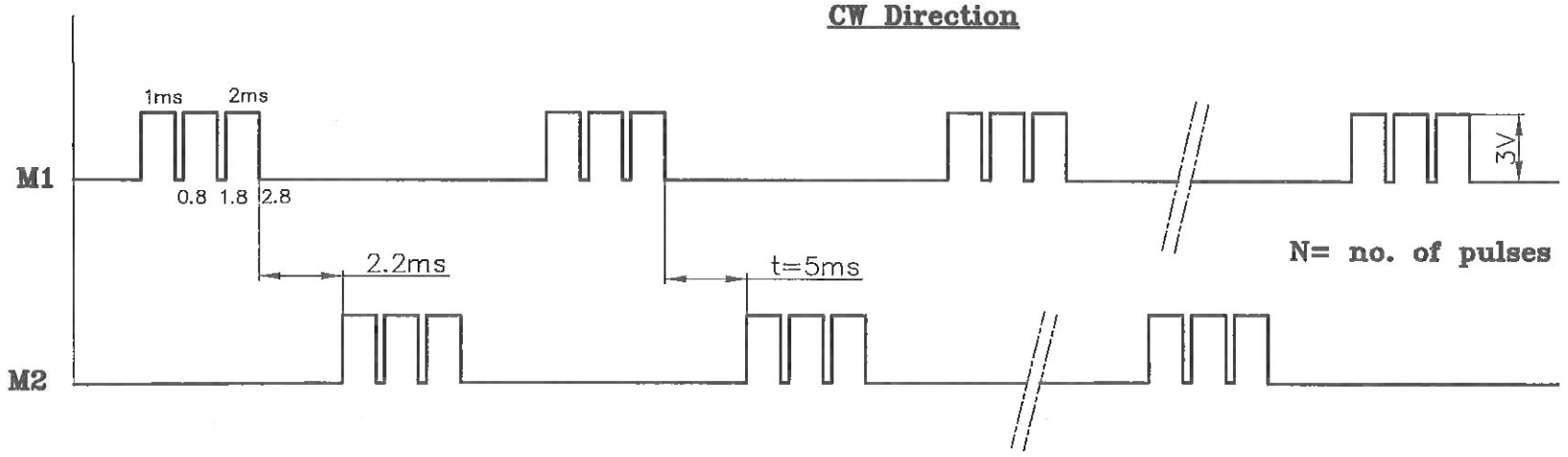
WATCH DIVISION

TECHNICAL DATA FOR TITAN C3H MOTOR (3 HANDS–1° Bi–DIRECTIONAL) METAL

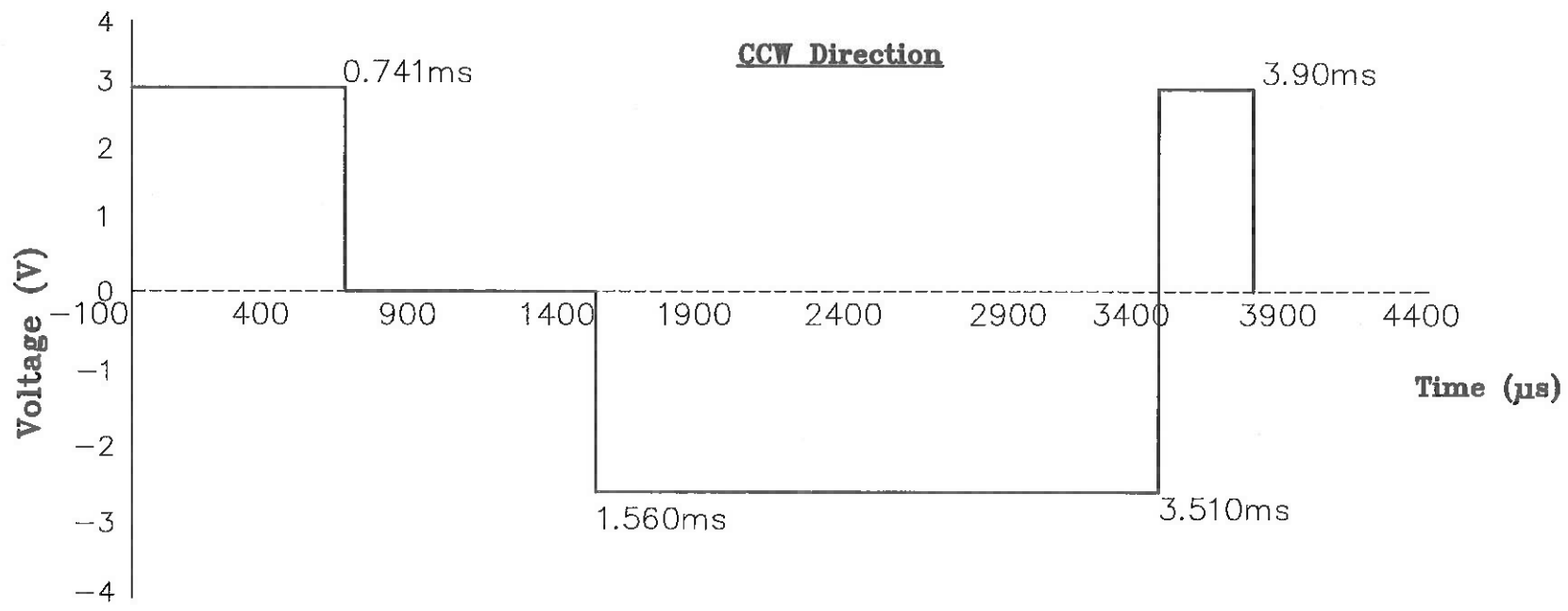


PULSE WAVE FORM

CW Direction



CCW Direction



Electrical Parameters				
SL	Description	Units	CW	CCW
01	Pulse width @ 3V	ms	2.8	3.9
02	Duty cycle	%	80	100
03	Motor step frequency (max)	Hz	128	64
04	Voltage	V	3	3
05	Motor consumption (max)	µAs	3.2	2.6
06	Motor peak consumption @3V (max)	mA	2.5	2
07	Load torque	µNm	48	–
08	Motor positioning torque	uNm	140	140
09	Magnetic field (forward/reverse)	KA/m	2.1	2.1
10	Start voltage	V	2.4	2.4
11	Stop voltage	V	3.7	3.7

K:\Drawings\Motors\Motor-C20 & C3H\2D\Mass\General\Tech Data_Metal.dwg

Ind	Alteration	Date	Sign

	Prepared	Checked	Approved
Name			
Date			

T-2959 a

Sheet 2 of 2 (Scale 6:1)

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