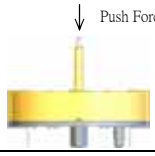
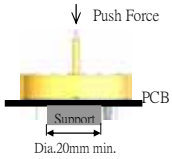
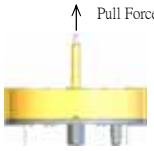
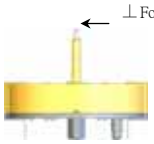
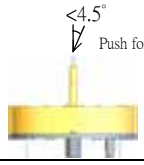
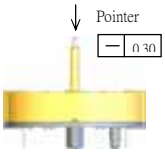
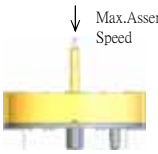
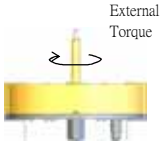
Data Instrument Technology

A company of Wellgain Group

VID69 Precaution of Clock Hands Assembly 指針装配要點

Description 描述	Diagram 图解	Specification Limit 标准極限			Possible problems when over limit 超标后可能引起的问题	Remarks 备注
		Metal Shaft	Outer Shaft	Unit 单位		
Maximum Push On Force 最大壓力		<150	<60	N	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise/ Gear & shaft mounting is damaged 断线\ 线伤\ 齿伤\ 杂音\ 齿轮与指针轴埋注受伤	Proper fixing motor on PCB. Proper supporting during assembly. 电机需正确装上PCB； 电机装配时需合适的支持；
Minimum Assembly Support 最小裝配支持		Dia.20 min.		mm	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise/ Gear & shaft mounting is damaged 断线\ 线伤\ 齿伤\ 杂音\ 齿轮与指针轴埋注受伤	Concrete base support should be located within +/- 0.5mm concentricity to the motor 支持台需與電機保持+/-0.5mm同心.
Maximum Pull Out Force 最大撥出力		<70	<60	N	Wire damaged/ Wire broken/ Gear damage/ Abnormal Noise/ Gear & shaft overmoulding damage/ Low pull out force 断线\ 线伤\ 齿伤\ 杂音\ 齿轮与指针轴埋注受伤\ 低拔出力	Repetivitive push & pull force should also be avoided. This could weaken overmoulding force between gear and shaft, then it induce low pull out foce. 避免重复的推/拉力，因齿轮和轴的埋注可能被弄伤，同时会减低拔出力.
Maximum Perpendicular Force 最大横向力		12	5	N	Output shaft bend/ Non-concentric rotation of output shaft 轴弯\ 转动晃动	Excess perpendicular force should be avoided to bend the shaft. 需避免过大横向力，防止轴弯.
Maximum Force Inclination 最大力傾斜度		<4.5		degree	Output shaft bend/ Non-concentric rotation of output shaft 轴弯\ 转动晃动	Excess inclination of applied force should be avoided to bend the shaft. 施加外力時,需避免外力过大傾斜，防止轴弯.
Maximum Pointer Straightness Deviation 最大指針垂直度偏差		0.3		mm	Output shaft bend/ Non-concentric rotation of output shaft. 轴弯\ 转动晃动	Assembly force should be maintained within 0.3mm straightness. Excess inclined assembly force could induce excess perpendicular force and bend the shaft. 装配力需保持直度0.3mm，过量傾斜的装配力会引起过量横力，引至轴弯.
Maximum Assembly Speed 最高裝配速度		2	1.5	mm/sec	Gear damage/ Gear & shaft mounting is damaged 齿伤\ 齿轮与指针轴埋注受伤	Excess assembly speed could induce excess force on gears. 装配速度太快会令齿轮受力过大.
Maximum External Torque 最大外加扭力		<40	<35	mNm	Gear damage/ Gear & shaft overmoulding damage / Low pull out force / Stopper damage (360 Degree Rotate) 齿伤\ 齿轮与指针轴埋注受伤\ 低拔出力\ 限位受伤	Excess external torque (> 40 mNm) applied on shaft would weaken overmoulding force between gear and shaft. It induce low pull out force. 过量外加扭力，齿轮和轴的埋注会弄伤. Repetivtive external torque, even less than 40mNm, could also damage the overmoulding force, it should be avoided. 避免重复的外加扭力, 即使小于40mNm，因齿轮和轴的埋注可能被弄伤，同时会减低拔出力.