SMITH OF DERBY
CLOCKMAKERS • EST. 1856

Product Data

T100 Synchronous Clock Movements

For exterior dials up to 750mm diameter and interior dials up to 900mm diameter

Document ref: T100 Data

Issue date: 01 May 2018

- Accurate timekeeping controlled by mains frequency.
- Reliably drives weather exposed exterior hands.
- Mounting and drive shaft length options for dial illumination and thickness.
- Easy time adjustment from front or back of dial.
- Automatic power failure backup and time correction options.
- Excellent build quality giving many years of service.
- UK designed and manufactured.

SMITH OF DERBY GROUP

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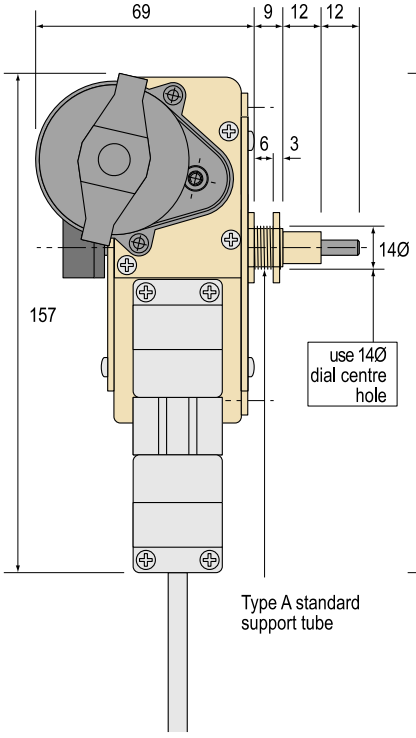
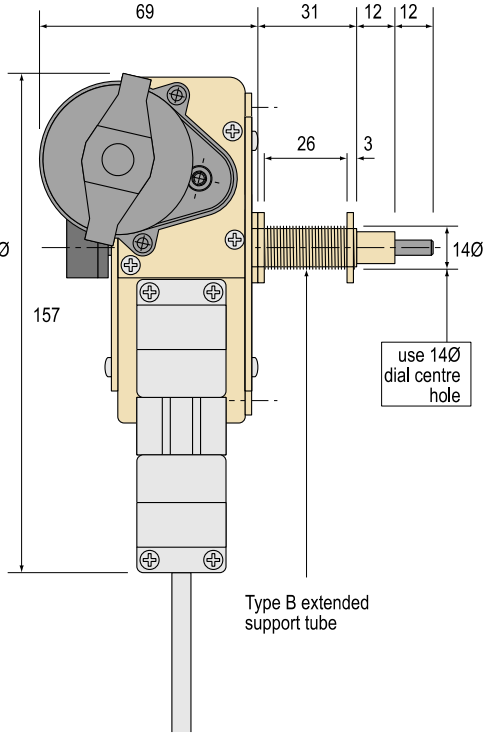
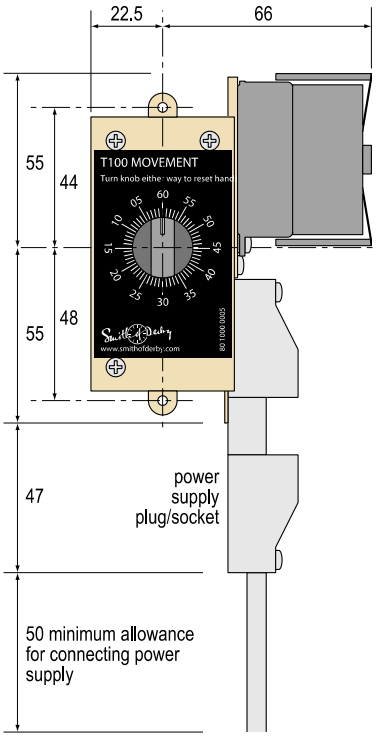
Dimensions



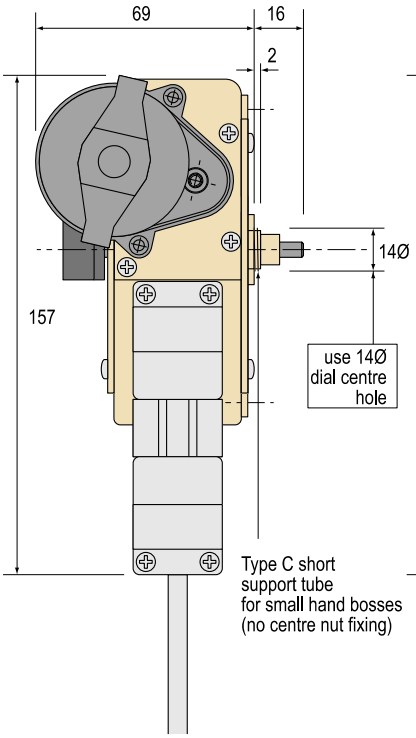
Side elevation Type A
maximum dial thickness 6mm



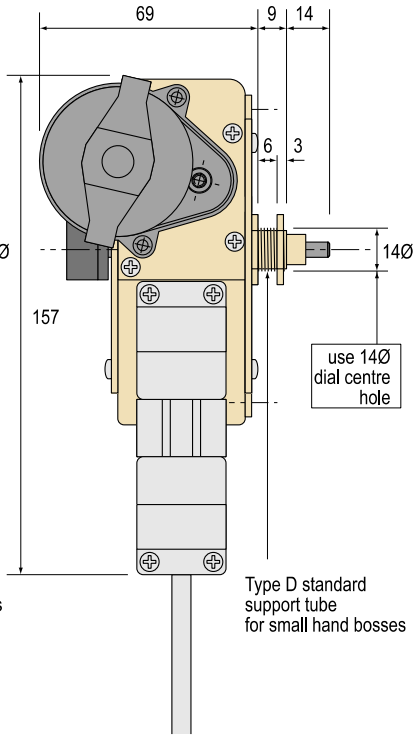
Side elevation Type B
maximum dial thickness 26mm/
rear illuminated dial applications



Rear elevation
all types



Side elevation Type C
maximum dial thickness 2mm



Side elevation Type D
maximum dial thickness 6mm

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Installation requirements

Dial diameters

Maximum dial diameters refer to overall sweep of the tip of the hour hand on an exterior dial (without dial cover) or interior/protected (with a cover glass over the hands or dial located indoors).

Location and access

Although it will drive external hands, the T100 unit itself must be weather protected.

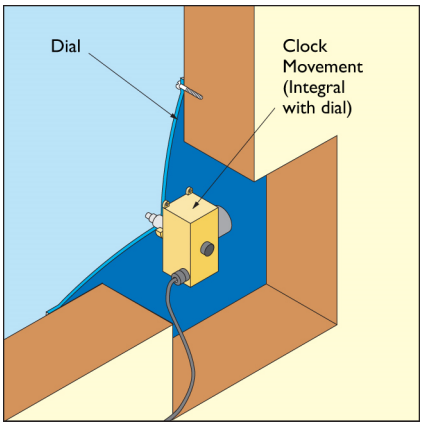
Adequate clearances must be provided if the T100 is to be installed in its own housing or casing behind the clock dial.

The T100 must be installed where access is possible for maintenance. If rear access is not possible, it will be necessary to remove the clock dial, hands and movement assembly from the outside.

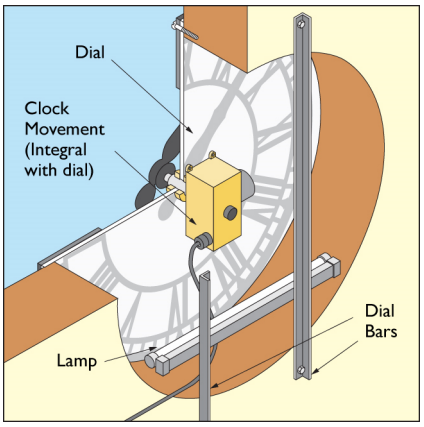
Time adjustment may be done from the back of the movement, but if it is more convenient, the T100 is built to allow for manual hands adjustment from the front.

Installation methods

The T100 is centre fixed on the rear of the dial, close coupled or with an extended tube to accommodate extra dial thickness or to minimise shadow when backlighting.



Type A, C or D support tube, rear of dial.



Type B support tube, backlit dial.

Safety requirements

The T100 movement must only be installed and maintained by qualified persons and in accordance with all electrical regulations. No attempt must be made to dismantle, modify or repair the unit other than the procedures given in the operation and maintenance manual. Failure to comply may be dangerous and will automatically invalidate any warranty.

Power failure backup systems

We recommend driving the T100 through our power failure back-up system (SA15/8 Auto Restart or SA19/1 Permanent Inverter Charger). These units include self-correction of timekeeping after power failures and automatic summer/winter changeover, and will control up to four individual synchronous movements (one per clock dial).

Electrical requirements

A power outlet to the correct specification must be provided by the client prior to installation of the T100 movement and backup system.

Any fixed cabling required between the backup system and the T100 movement must also be provided.

To comply with regulations both the above must be installed by an approved electrical contractor.

The plug/socket fitted to the T100 provides a safe and convenient way of isolating it from the power supply for maintenance. If the size of the plug/socket is a problem in a limited space, an alternative connector may be used but it is essential that the motor connection wires are held securely.

All wiring and connections must comply with local electrical regulations (BS7671 in the United Kingdom).

Maintenance

Smith of Derby offer a maintenance programme which includes one annual service visit within the UK mainland, and includes certain replacement or exchange parts and maintenance within the terms of the agreement. Please contact us for further details.

Guarantee

12 months warranty against failure through faulty workmanship or materials. Please see our full terms and conditions, available on our website or on request.

Specification

Timekeeping accuracy	via backup system	+/- 2 sec/year
	direct from mains	better than +/- 0.1 seconds over a 24 hour period (UK supply)
Weight (nominal excluding hands)		0.65kg
Power requirements	standard	200-240V 50Hz AC
	special order	100-120V 50/60Hz AC
	fuse rating	5A
	power consumption	3w
Operating temperature range		-15 to +55 degrees Celsius
Maximum dial diameters	exterior	750mm
	interior/protected	900mm
Maximum dial thickness	type A fixing method	6mm solid/opaque
	type B fixing method	26mm solid/opaque, 6mm translucent/backlit
	type C fixing method	1mm solid/opaque
	type D fixing method	6mm solid/opaque
Minimum space between dial and cover	type A&B fixing method	36mm
	type C&D fixing method	22mm
Materials		corrosion resistant plated steel casing pre-lubricated long life bearings precision machined brass gear wheels bronze bearings