



Tecal H Range Dri-Block Calibrator

This range of temperature calibrators is ideal for advanced temperature calibration work where programmability, switch testing and ramp/dwell functionality from the unit's display and user interface are required.

Each Tecal H model is shipped with one insert, soft-sided carrying case, calibration certificate and TechneWorks software with cable.

H Version: Set required Temperature and Calibrate; also programmable for switch test and ramp rate.

The H models have:

- 4 line by 20 character LCD and 8 button keypad for entering programs and viewing data.
- The ability to create, use and store programs and test results internally.
- Programming of set temperature, ramp rate, hold time, "pause on switch changeover" operation and hold until pause pressed.
- A switch test input for monitoring hydraulic thermostats.



140H

Tecal 140H

Using advanced peltier technology and state-of-the-art mechanical and electrical components, the Tecal 140H can rapidly cover the complete temperature range where speed is of the essence without loss of accuracy or stability. The heater block, with a defined measuring zone of 5 cm from the bottom of the block, allows for different length/active area sensors. Although the quoted accuracy and stability is $\pm 0.3^{\circ}\text{C}$ & $\pm 0.05^{\circ}\text{C}$ respectively, one can often achieve an accuracy of $\pm 0.1^{\circ}\text{C}$ and a stability of $\pm 0.02^{\circ}\text{C}$ with high class RTDs and thermocouples.

Technical Specifications

Minimum temperature	45°C below ambient ¹
Maximum temperature	140°C
Temperature accuracy in measuring zone.	$\pm 0.3^{\circ}\text{C}$
Temperature uniformity in measuring zone	$\pm 0.2^{\circ}\text{C}^2$
Measuring zone	0 to 5 cm from base of well
Temperature stability after 10min	$\pm 0.05^{\circ}\text{C}$
Display resolution	0.1°C
Heating rate, 20°C to 100°C	5 minutes
Cooling rate, 100°C to 0°C	9 minutes
Programmable ramp rate, °C/min	0.1 to 10, on H version
Switch test	on H version
Comms port, 9 way D type	Full bi-directional RS-232
Weight	32 lbs
Dimensions (W x D x H)	19 x 42.6 x 28.5 cm

¹ In a maximum ambient temperature of 20°C and when using the CH-5 Chiller a temperature of -40°C can be achieved.

² At 100°C



See page 6 for full range of inserts available.

Ordering Information

Product Code	Model	Voltage	Hz	Watts	Net Weight (lbs)
3026600	TECAL 140H	230V	50/60	400	31
3026000	TECAL 140H	120V	50/60	400	31
Accessories					
7032784	Hard carry case for Tecal				

tecal portable dri-block® calibrators

Tecal 425H


These calibrators use large aluminum heater blocks to give fast heating and cooling rates which provide high accuracy, uniformity and stability up to 425°C.

Technical Specifications

Minimum temperature	20°C above ambient
Maximum temperature	425°C
Temperature accuracy in measuring zone	±0.3°C
Temperature uniformity in measuring zone	±0.2°C (at 300°C)
Measuring zone	0 to 5cm from base of well
Temperature stability after 10min	±0.05°C
Display resolution	0.1°C
Heating rate, 20°C to 400°C (230/120v)	15 minutes
Cooling rate, 400°C to 100°C	25 minutes
Programmable ramp rate, °C/min	0.1 to 10, on H version
Switch test	on H version
Fan cooling	Automatic
Comms port, 9 way D type	Full bi-directional RS-232
Weight	21 lbs
Dimensions (W x D x H)	19 x 42.6 x 28.5 cm



425H

 See page 6 for full range of inserts available.

Tecal 650H

For high operating temperatures up to 650°C, the 650 models have large aluminum-bronze blocks which accept large single or multi-hole inserts. These inserts can accommodate probes to a depth of 6", providing high stability and uniformity. All models are equipped with high-powered band heaters and two fans in order to rapidly heat and cool the temperature probe block to the required range of temperatures.

Technical Specifications

Minimum temperature	25°C above ambient
Maximum temperature	650°C
Temperature accuracy in measuring zone.	±0.4°C
Temperature uniformity in measuring zone	±1°C (at 400°C)
Measuring zone	0 to 5 cm from base of well
Temperature stability after 10mins	±0.09°C
Display resolution	0.1°C
Heating rate, 20°C to 600°C	35 minutes
Cooling rate, 600°C to 200°C	30 minutes
Programmable ramp rate, °C/min	0.1 to 10
Switch test	Yes
Comms port, 9 way D type	Full bi-directional RS-232
Weight	28 lbs
Dimensions (W x D x H)	19 x 42.6 x 28.5 cm

Immersion Depth = 6"



650H

Ordering Information

Product Code	Model	Voltage	Hz	Watts	Net Weight (lbs)
3026800	TECAL 425H	230V	50/60	700	21
3026200	TECAL 425H	120V	50/60	700	21
3027000	TECAL 650H	230V	50/60	1100	28
3026400	TECAL 650H	120V	50/60	1100	28

Accessories

7032395	Cooling probe for 425, 650, 700X
7032784	Hard carry case for Tecal

The Cooling probe can be used to rapidly cool the insert – chilled water passes through the probe that fits inserts (3/8" OD).



Ordering Information

Tecal 140F / 140H / 425F / 425H / UCal 400+ Inserts (4.5" immersion depth)

Product Code	Description	Net weight (lbs)
7032533	Insert 5 x 1/4" probes aluminum	1.1
7032534*	Insert 3/8" + 5/16" + 1/4" + 3/16" + 1/8" probe aluminum	1.1
7032535	Insert 2 x 3/8" + 2 x 1/4" probes aluminum	1.1
7032536	Insert 2 x 1/2" + 2 x 1/4" probes aluminum	1.1
7032537	Insert 1/4" probe aluminum	1.1
7032538	Insert blank aluminum	1.1
7032574	Insert 9/16" & 1/4" probe aluminum	1.1
7032575	Insert 5/8" & 1/4" probe aluminum	1.1
7032576	Insert 11/16" & 1/4" probe aluminum	1.1
7032577	Insert 3/4" & 1/4" probe aluminum	1.1

*Included with each Tecal 140F/H, 425 F/H and UCal 400+

Tecal 650F / 650H Inserts (6" immersion depth)

Product Code	Description	Net weight (lbs)
7032539	Insert 5 x 1/4" probes aluminum bronze	2.4
7032540*	Insert 3/8" + 5/16" + 1/4" + 3/16" + 1/8" probes aluminum bronze	2.4
7032541	Insert 2 x 3/8" + 2 x 1/4" probes aluminum bronze	2.4
7032542	Insert 2 x 1/2" + 2 x 1/4" probes aluminum bronze	2.4
7032543	Insert 1 x 1/4" probe aluminum bronze	2.4
7032544	Insert blank aluminum bronze	3.3
7032570	Insert 9/16" & 1/4" probe aluminum bronze	2.4
7032571	Insert 5/8" & 1/4" probe aluminum bronze	2.4
7032572	Insert 3/4" & 1/4" probe aluminum bronze	2.4
7032573	Insert 11/16" & 1/4" probe aluminum bronze	2.4

*Included with each Tecal 650F/H