



Description

Precision compact dry block calibrators for calibration of RTDs, thermocouples, thermostats, thermistors, and other common temperature sensing devices. Features include an automatic switch test, programmable auto stepping, excellent stability and an intuitive display that allows fast and easy operation.

Each model has USB communication and is EasyCal software compatible for control and readback, enabling automated calibration. When utilised with a CalBench system, these dry block calibrators are used as the temperature source with the UUT (sensor) output measurement via a module. Modules like the 8060, 7051 or 5065B feature precision RTD and thermocouple measurement.

Additional multi-channel signal scanners are available for batch testing of temperature devices, automated via EasyCal software. These include the 7085A 10 channel scanner module and the 8085 advanced signal multi-scanner module (8 or 16 channel versions). Both modules are also available as benchtop units.

Features

- 8070: -25 to 155 °C / -13 to 311 °F
- 8071: 28 to 350 °C / 82 to 662 °F
- 8072: 28 to 660 °C / 82 to 1220 °F
- Calibrate temperature sensors, RTDs, thermocouples
- Simple operation and intuitive display
- Interchangeable inserts
- Supplied with multi hole insert
- Auto stepping
- MVI Mains Variance Immunity
- EasyCal software compatible

Specifications

Model	Temp range	Heating time min to max	Cooling times	Accuracy	Resolution	Stability	Approx time to stability	Immersion depth	Insert diameter
8070	-25 to 155 °C (-13 to 311 °F)	13 mins	155 -23 °C: 12 mins 23 to -25 °C: 16 mins	±0.3 °C (0.54 °F)	1, 0.1 or 0.01 °C or °F or K	±0.04 °C (0.07 °F)	10 mins	120 mm (4.53 in.)	26 mm (1.02 in.)
8071	28 to 350 °C (82 to 662 °F)	6 mins	350 to 100 °C: 18 mins 100 to 50 °C: 13 mins	±0.45 °C (0.81 °F)	1, 0.1 or 0.01 °C or °F or K	±0.05 °C (0.09 °F)	10 mins	115 mm (4.53 in.)	26 mm (1.02 in.)
8072	28 to 660 °C (82 to 1220 °F)	18 mins	660 to 100 °C: 39 mins 100 to 50 °C: 18 mins	±0.85 °C (1.53 °F)	1, 0.1 or 0.01 °C or °F or K	±0.08 °C (0.14 °F)	5 mins	115 mm (4.5 in.)	26 mm (1 in.)

Switch input (dry contact) Max 14 V DC test voltage / Max 1 mA test current.

Supplied pre-drilled Inserts Standard versions - Metric multi hole insert (each model): 1 x 3, 2 x 4, 1 x 5, 1 x 6, 1 x 9 mm.
Imperial Versions (8070-I, 8071-I, 8072-I): 1 x 1/8, 1 x 3/16, 1 x 1/4, 1 x 3/8 " + 1 x 4 mm.
1 x undrilled insert supplied with each calibrator.

Interfaces USB (EasyCal compatible).

Environmental Operating temp: 0 to 50 °C / 32 to 122 °F. Storage temp: -20 to 50 °C / -4 to 122 °F. Humidity: 5 to 90 % RH.

Mains supply 115 V AC / 60 Hz to 230 V AC / 60 Hz.

Dimensions (all models) L x W x H: 248 x 148 x 305 mm / 9.76 x 5.83 x 1 2.01 ".

Weight 8070: 5.5 kg (12.1 lb) / 8071: 5 kg (11 lb) / 8072: 6.1 kg (13.4 lb).

Supplied accessories/extras 1 x multi hole insert, 1 x undrilled insert and traceable calibration certificate.

Optional extras Inserts and reference probes (see page 2). Carry cases, cleaning brushes, shields, insulation plugs, extras upon request.



Options

Insert Packs

Material: 8070 and 8071 inserts: Aluminium / 8072 inserts: Brass / 8073 inserts: High temperature steel alloy.

8070-METP	Pack of 11 Metric Inserts for 8070 - 3,4,5,6,7,8,9,10,11,12,13 mm.
8070-IMPP	Pack of 9 Imperial Inserts for 8070 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8 " .
8071-METP	Pack of 16 Metric Inserts for 8071 - 3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20 mm.
8071-IMPP	Pack of 12 Imperial Inserts for 8071 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16 " .
8072-METP	Pack of 16 Metric Inserts for 8072 - 3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20 mm.
8072-IMPP	Pack of 12 Imperial Inserts for 8072 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16 " .

Reference Sensors

TERS400/4/250	Pt100 reference sensor, solid with handle (-50 to 400 °C / -58 to 752 °F), diameter 4 mm (0.16 in), straight, length 250 mm (9.84 in), cable length 2m (6.6 ft), with ISO 17025 calibration certificate.
TERS400/4/350	Pt100 reference sensor, solid, with handle (-50 to 400°C / -58 to 752 °F), diameter 4mm (0.16 in), straight, length 350 mm (13.8 in), cable length 2 m (3.3 ft), with ISO 17025 calibration certificate.
TERS650/4/250	Pt100 reference sensor, solid (-150 to 650 °C / -238 to 1207 °F.), diameter 4 mm (0.16 in), straight, length 250 mm (9.84 in), cable length 2 m (6.6 ft), with ISO 17025 calibration certificate and carry case.
TERS650/4/350	Pt100 reference sensor, solid (-150 to 650 °C / -238 to 1207 °F.), diameter 4 mm (0.16 in), straight, length 350 mm (13.8 in), cable length 2 m (6.6 ft), with ISO 17025 calibration certificate and carry case.

For detailed specifications on TE reference sensors please see separate data sheet.

EasyCal Software

ECFLA	EasyCal Calibration Software (accompanying product license).
ECD-8070/71/72/73	EasyCal software driver for dry block calibrators 8070, 8071, 8072 and 8073.

Note that a driver is included as standard when EasyCal software is purchased with a dry block calibrator or part of a turnkey package containing EasyCal. For further software options please see the EasyCal brochure.

Additional Options

ISO 17025 certificates	C226: ISO 17025 (UKAS) calibration certificate for dry block calibrator (traceable certificate supplied as standard).
Accessories upon request	Insulation plugs, blank and pre-drilled inserts, carry cases, cleaning brushes, thermal protection shields.

Ordering Information

8070	Dry Block Calibrator (-23 to 155 °C) with metric multi hole insert, blank insert, traceable certificate.
8070-METP	Pack of 11 Metric Inserts for 8070 - 3,4,5,6,7,8,9,10,11,12,13 mm.
8070-I	Dry Block Calibrator (-23 to 155 °C) with imperial multi hole insert, blank insert, traceable certificate.
8070-IMPP	Pack of 9 Imperial Inserts for 8070 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8 " .
8071	Dry Block Calibrator (28 to 350 °C) with metric multi hole insert, blank insert, traceable certificate.
8071-METP	Pack of 16 Metric Inserts for 8071 - 3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20 mm.
8071-I	Dry Block Calibrator (28 to 350 °C) with imperial multi hole insert, blank insert, traceable certificate.
8071-IMPP	Pack of 12 Imperial Inserts for 8071 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16 " .
8072	Dry Block Calibrator (28 to 660 °C) with metric multi hole insert, blank insert, traceable certificate.
8072-METP	Pack of 16 Metric Inserts for 8072 - 3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20 mm.
8072-I	Dry Block Calibrator (28 to 660 °C) with imperial multi hole insert, blank insert, traceable certificate.
8072-IMPP	Pack of 12 Imperial Inserts for 8072 - 1/8,3/16,1/4,5/16,3/8,7/16,1/2,9/16,5/8,11/16,3/4,13/16 " .

Reference Sensors

TERS400/4/250	Pt100 Reference Sensor (-50 to 400 °C / -58 to 752 °F, diameter 4 mm, straight, length 250 mm).
TERS400/4/350	Pt100 Reference Sensor (-50 to 400 °C / -58 to 752 °F, diameter 4 mm, straight, length 350 mm).
TERS650/4/250	Pt100 Reference Sensor (-150 to 650 °C / -238 to 1207 °F, diameter 4 mm, length 250 mm).
TERS650/4/350	Pt100 Reference Sensor (-150 to 650 °C / -238 to 1207 °F, diameter 4 mm, length 350 mm).

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.