



DryTC165 and DryTC650 Series

Druck dry block temperature calibrators

Accurate temperature measurement is essential for maintaining product quality, process efficiency, regulatory compliance and operational safety in industrial processes. High performance, stable temperature sources are the solution for achieving optimal performance of temperature sensors and process instrumentation, by providing reference temperatures for checking and calibrating these devices. The Druck Dry Block Temperature Calibrators provide solutions for testing temperature devices over a range of temperatures from -35°C to 650°C (-31°F to 1202°F).

The design philosophy is one of simplification, that is, simplifying the complex arts and skills of temperature calibration to provide instrument technicians with a highly accurate, yet simple to use temperature reference.

- Calibrated to EA-10/13 (European Co-operation for Accreditation Guidelines on the Calibration of Dry Block Calibrators) ensuring high accuracy without the necessity of a reference probe!
- Very easy operation with 4-button control and integrated reference temperature sensor
- Serial interface for computer-assisted monitoring of the calibration process with our 4Sight2 calibration management software (Optional accessory **P/N TCUSB**)
- **Optional accessory - P/N IOPTC-CASE-1** Transport Case with wheels

DryTC165 and DryTC650

These dry block calibrators incorporate the latest metal block and electronic control technology and offer a choice of precision bored well inserts to accommodate a wide range of test devices. Two models are available:

- DryTC165 generates temperatures from -35°C to 165°C (-31°F to 329°F)
- DryTC650 generates temperatures from room temperature to 650°C (1202°F)

Both models provide high accuracy, excellent set point stability and rapid heating and cooling times.

- Temperature range from room temperature to 650°C (1202°F)
- Accuracy from $\pm 0.2^{\circ}\text{C}$
- Stability $\pm 0.05^{\circ}\text{C}$
- Rapid heating and cooling
- Light weight and robust for field use
- Choice of interchangeable well inserts
- Easy to set-up and use
- °C & °F working temperature units (initial set up °C)

Dry well insertion sleeves

Dry block calibrators greatly simplify the test and calibration of process sensor heads, probes, switches and thermometers, but optimum performance relies on a good fit of the device in the well insert. To facilitate this, a range of insertion sleeves are available with hole diameters to suit the most common probes and devices.

Dry block general features

Controller OFF – disables automatic temperature control at the last set point temperature to allow the calibrator settings to be changed part way through a test.

Manual control – allows the power output of the calibrator to be adjusted to control the rate at which the calibrator reaches the set-point temperature.

Set-point memory – allows up to four set-point temperatures to be stored in memory. The test sequence can then be activated with a single key press.

Test profile – this function defines a temperature profile with a heating rate to the first set-point value, a test duration or soak time at set-point one followed by a cooling rate to a second set-point.

PC communications – An optional USB cable is available for connection to a PC.

Applications

Whether for on-site use in the workshop, in the measuring and test room or laboratory, our temperature calibrators can be used everywhere.

A wide range of industries and various application areas are covered.

- Assembly, commissioning
- Manufacturing, production
- Maintenance, service
- Quality assurance, test equipment monitoring
- Repair



4Sight2 Calibration Management Software



4Sight2 offers easy-to-use, cost effective and scalable calibration management that is equally effective for single use or global multi-site operations. This configurable software is designed to empower your organization to operate simply and securely, connecting your people to instruments, data and enhanced analytics.

Purpose-built with available custom installation support, 4Sight2 is designed to deliver actionable intelligence and transformative insights. Developed in-house, the custom software package enhances the visibility of your assets and data, helping you plan your resources to support effective maintenance, process efficiency and regulatory compliance.

- Provides full visibility of all your assets, reference standards and resources on your plant.
- Complete integration with Druck calibration equipment automates field activities and minimizes manual intervention without compromising on quality, compliance and data integrity.
- Automatic workload scheduling and planning, status tracking, configuration capabilities based on individual needs, track and trace calibrations, historical trending and drift analysis features provide a robust solution to drive process efficiency and time saving.
- Easy to use, simple layout packed with customization capabilities offer highly flexible and adaptable solution suitable for a wide range of user groups such as technicians, site supervisors, managers spanning across single or multiple sites or geographies.
- Web browser-based design allows you to access data anytime, anywhere eliminating the need for maintaining and managing paper-based records.



Specifications

DryTC165			DryTC650		
					
Temperature ranges					
	-35 to 165°C (-31 to 329°F)		Room temp to 650°C (Room temp to 1202°F)		
Heat well	Dia. 28 mm/depth 150 mm				
Display accuracy	0 to 40 mm from the bottom of the insert				
Accuracy	±0.2°C (±0.45 °F)		±0.4°C (±0.72 °F)		
Display					
Display range	-50°C to 165°C (-58 to 329°F)		0 to 650°C (32 to 1202°F)		
Measurement resolution	0.01° from -9.99 to 99.99 otherwise 0.1°C				
Setting resolution	0.1°C				
Standard features	Controller off, manual control, operating service hours, set-point memory, rate control °C /min, test profile				
Temperature units	°C & °F (Initial set up °C)				
Power requirements					
Supply voltage	100 to 240 VAC 50/60 Hz				
Power consumption	375 VA nominal		1000 VA nominal		
Universal Power Lead	Suitable for: EU, Australia/New Zealand, UK, South Africa/India, Japan, USA, China				
Dimensions					
Width	210 mm		150 mm		
Height	380 + 50 mm (Handle)		330 + 70 mm (Handle)		
Depth	300 mm		270 mm		
Weight	10 Kg		7.5 Kg		
Environmental					
Room temperature	10°C to 50°C (50°F to 122°F) Specifications valid at 18°C to 28°C (65 °F to 82 °F) room temperature. Minimum and maximum temperatures may not be achieved over the full room temperature range.				
Humidity	To 80% rh (non-condensing)				
Storage temperature	From -10°C to 60°C (14°F to 140°F)				
Recommended operating environment	Indoor use. Not for use in potentially explosive atmospheres.				
Approvals					
Approvals	CE marked				
RoHS	EU & UAE Compliant				
EMC	EN 61326-1				
Electrical Safety	EN 61010-1				
Connectivity					
Interface	Serial interface for computer-assisted monitoring of the calibration process. Optional accessory P/N TCUSB.				



Ordering information for DryTC

The DryTC are supplied with a safety manual and traceable factory calibration certificate as standard along with the following:

- Insert 1 x 3.5, 6.5, 13.5 mm (Brass)
- Insert exchange tongs
- Universal plug and lead set

Model:

DRYTC165-3

Dry block temp calibrator -35 to 165°C (°C & °F working temperature unit)

DRYTC650-3

Dry block temp calibrator RT to 650°C (°C & °F working temperature unit)

DAKKS Accredited Calibration

We also offer DAKKS accredited calibrations, please advise at the time of order placement if required using

P/N **TCDKD** DKD accredited calibration

Accessories

Please state any accessories required as separate items when placing order

TCUSB RS485 to USB output including a cable to connect to a PC

IOPTC-CASE-1 Transport Case with wheels

IOPTC-DB-2 Insert 1x 6.5 mm (Brass)

IOPTC-DB-4 Insert 3.5, 4.5 mm (Brass)

IOPTC-DB-5 Insert 3.5, 6.5 mm (Brass)

IOPTC-DB-7 Insert 3.5, 6.5, 8.5, 10.5 mm (Brass)

IOPTC-DB-21 Insert no Bore Holes D28 mm (Brass)

Adapter inserts

Single bore adapter insert for DryTC 165 and 650				
	Druck part number			
Type	DRY			
Length mm		150		
Diameter mm			28	
Bore size mm				
1.5				015 MS
2.0				020 MS
2.5				025 MS
3.0				030 MS
3.5				035 MS
4.0				040 MS
4.5				045 MS
5.0				050 MS
5.5				055 MS
6.0				060 MS
7.0				070 MS
7.5				075 MS
8.0				080 MS
8.5				085 MS
9.0				090 MS
9.5				095 MS
10.0				100 MS
10.5				105 MS
11.0				110 MS
11.5				115 MS
12.0				120 MS
12.5				125 MS
13.0				130 MS
13.5				135 MS
14.0				140 MS
14.5				145 MS
15.0				150 MS
15.5				155 MS
16.0				160 MS
16.5				165 MS
17.0				170 MS
17.5				175 MS
18.0				180 MS
18.5				185 MS
19.0				190 MS
19.5				195 MS
20.0				200 MS
20.5				205 MS
21.0				210 MS
21.5				215 MS
22.0				220 MS
22.5				225 MS
23.0				230 MS
23.5				235 MS

Multi bore adaptor insert for DryTC 165 and 650				
	Druck part number			
Type	DRY			
Length mm		150		
Diameter mm			28	
Number of bores				
1				B 01 MS
2				B 02 MS
3				B 03 MS
4				B 04 MS
5				B 05 MS
6				B 06 MS
7				B 07 MS
8				B 08 MS
9				B 09 MS
10				B 10 MS
11				B 11 MS
12				B 12 MS
13				B 13 MS
14				B 14 MS
15				B 15 MS
16				B 16 MS
17				B 17 MS
18				B 18 MS
19				B 19 MS

Note: Ensure the bore size is 0.5mm larger than the probe size.

Example ordering codes:

Use Dry 150 28 050MS to order an insert with a single 5 mm bore.

Use Dry 150 28 B02MS, 10 mm and 12 mm to order an insert with two bores of 10 mm and 12 mm.

Delivering world class pressure measurement and calibration technology



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