

# MicroCal MCK

On-board Marine Temperature,  
Pressure & Electrical Calibration Kit



**MULTIFUNCTION  
CALIBRATORS**

- ▶ Temperature Calibrator
- ▶ Pressure Calibrator
- ▶ Electrical Calibrator
- ▶ Helps to comply with SOLAS IX  
Marine Maintenance  
Regulations
- ▶ High Visibility, Floating Water  
Proof Transit Case
- ▶ Pressure & Temperature  
Switch Test
- ▶ Pressure Leak Test
- ▶ Intrinsically Safe Instruments  
Available



[www.eurotron.com](http://www.eurotron.com)

## Setting the standard for on-board preventative maintenance

The Microcal MCK is an on board Pressure, Temperature and Electrical calibration kit. Since 2002 all vessels had to comply with the ISM code of practice which is governing the safety of life at sea. In detail, the chapter IX of the Solas regulation outlines the preventive maintenance procedure that should be in place on board to ensure the correct functionality of instrumentation. The MCK has been introduced to help meet the IX Solas maintenance regulations and finds its application in the main and auxiliaries engine, main and auxiliary boiler and generally in anywhere calibration

procedure are required. The MCK is a rugged high visibility floating case containing a complete set of calibration and test tools for temperature, pressure and electrical equipment. All the test equipments are supplied with traceable calibration certificate. In addition a useful non-contact infrared thermometer is supplied as a standard to measure temperature in critical circumstances such as hot spot on main switch, temperature of the bearings, temperature of the exhaust etc. Different configuration are available to suit the needs of different operators.

### F3280019 Pneumatic Pump

Pressure range	40 bar and vacuum to 95%
Pressure connection	1/4 BSP female
Adjustment	Fine control, stroke and pressure relief valve

*Hydraulic 700 bar pump available on request.*

### MicroCal P100 Pressure Calibrator

Pressure range	-1 to 35 bar gauge (0 to 700 bar on request)
Accuracy	0.2% FS
Power supply	Alkaline battery

### High Visibility, Floating, Water Proof Case

### Microray PRO non-contact infrared thermometer

Temperature range	-30°C to 500°C
Accuracy	±1.5% rdg or ±1°C
Distance to target	15:1 (40 mm @ 600 mm)
Laser	Standard
Alarm	Visual programmable
Memory	last measure
Power supply	Alkaline battery



### Applications

- Gear and thrust bearings
- Turbo charges
- Fuel oil systems
- Lubricating oil systems
- Fire fighting systems
- Feed water system
- Cooling water system
- Condensate system
- Heat exchangers
- Crew and cargo heating systems

### Included accessories

Gauge adaptors    BSP/NPT adapters Kit  
Seals                    A set of seals



### MicroCal T30 Dry Block temperature calibrator

Temperature range	+20 to 300°C
Heating time	10 minutes
Cooling time	15 minutes
Resolution	0.1°C
Block holes	1 x Ø3.3mm - 1 x Ø4.8mm 1 x Ø6.4mm - 1 x Ø9.6mm
Power supply	230V AC (110Vac on request)

### MicroCal20 DPC Basic Multifunction Calibrator

Source	mV, V, mA, T/Cs, RTDs, Ohms, frequency, pulse
Measure	mV, V, mA, T/Cs, RTDs, Ohms, frequency, pulse
Accuracy	0.02% rdg
Functions	24V loop power supply, dual channel switch test, ramp, step
Power supply	NI-HM rechargeable battery
<b>Intrinsically Safe (ATEX) model available</b> 	



Control room  
Cooling water system  
Feed water system  
Turbo charge  
Engine room

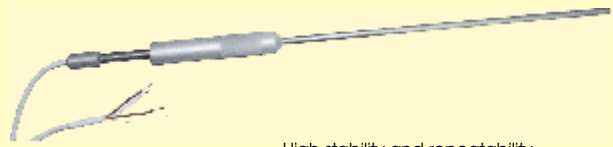
## Accessories




**cat. 8165  
MicroCal TCS MARINE  
Dry Block Calibrator**

Temperature range 35 to 650°C  
 Insert holes 2 x Ø4.5mm - 2 x Ø6.4mm  
 1 x Ø8mm - 1 x Ø9mm  
 Well depth 148 mm  
 Power supply 230V AC (110Vac on request)  
 Accessories Tweezer, calibration certificate, vinyl carrying case with shoulder strap

**F2184200  
Pt100 Class A working standard**




High stability and repeatability  
 4-wire Pt100 probe for best accuracy temperature calibration




**F3280015** Hand pump for vacuum and pressure up to 700 bar

**EE170049** Adapter Kit for MicroCal 20 external pressure module

**EE372008 - 1000 bar hydraulic hose**



4-layer low distortion tube, made in stainless steel and Nylon with a disconnections system from the circuit with low-loss valve. The tube comes with two safety connectors/adapters with 1/4" BSPM plug and connector for the hydraulic pump.




**External pressure module for MicroCal 20DPC**

**Pressure Range:** -1 to 35 bar gauge  
 0 to 700 bar gauge  
**Accuracy:** 0.025% F.S.

Direct connection to the MicroCal 20 calibrator

**MicroCal P4 - Compact pressure indicator**



**Pressure range:** 35 bar  
**Accuracy:** 0.2% F.S.

Data memory for 10,000 measurements  
 22 selectable measurements units  
 ATEX model available

## Ordering Codes

Code	Model
3250	High visibility water proof marine case, 1 MicroRay PRO infrared thermometer, a set of BSP and NPT adapters instruction manuals, Eurotron calibration certificate.
<b>Table A - Electrical Signal Calibrators</b>	
0	none
M20B-STD	Multifunction, 2-channel calibrator MicroCal 20 Basic
M20B-IS	Multifunction, 2-channel Intrinsically Safe ATEX approved calibrator MicroCal 20 Basic IS
M20P-STD	Multifunction, 2-channel calibrator MicroCal 20 Plus + 35bar external pressure sensor + 40bar pneumatic pump+ adapters
M20P-IS	Multifunction, 2-channel Intrinsically Safe ATEX approved calibrator MicroCal 20 Plus IS + 35bar internal pressure sensor + 40bar pneumatic pump+ adapters
<b>Table B - Pressure Calibrators</b>	
0	none
P4-STD-35	Digital pressure indicator MicroCal P4, 0.2% FS accuracy, 35 bar relative pressure sensor + 40 bar pneumatic pump + adapters
P4-IS-35	Digital pressure indicator Intrinsically Safe ATEX approved MicroCal P4, 0.2% FS accuracy, 35 bar relative pressure sensor + 40 bar pneumatic pump + adapters
P100-40	Pressure calibrator MicroCal P100, 0.2% FS accuracy, 35 bar relative pressure sensor + 40 bar pneumatic pump + adapters
P100-700	Pressure calibrator MicroCal P100, 0.2% FS accuracy, 700 bar relative pressure sensor + 700 bar hydraulic pump + adapters + high pressure hose
M20-EXT35	External relative pressure sensor for MicroCal 20, 0.025% FS accuracy, range 35 bar + 40 bar pneumatic pump + adapters
M20-EXT700	External relative pressure sensor for MicroCal 20, 0.025% FS accuracy, range 700 bar + 700 bar hydraulic pump + adapters + high pressure hose
<b>Table C Temperature Calibrator</b>	
0	none
T30	MicroCal T30 dry block calibrator - range Tambient to 300°C
TCS Marine	MicroCal TCS Marine dry block calibrator - range 35°C to 650°C supplied with vinyl carrying case
<b>Table D Line Charger / Power Supply</b>	
USA	120 V 50/60 Hz with USA plug
SCK	230 V 50/60 Hz with Schuko plug
UK	230 V 50/60 Hz with UK plug
EUR	230 V 50/60 Hz with European plug
JAP	100 V 50/60 Hz with USA/Japan plug

3250 - M20B-IS - P100-40 - T30 - EUR Typical Ordering Code