

### Dry Block Temperature Calibrators **LR-Cal** PYROS Basic series

- **LR-Cal** PYROS Basic 140: -24°C...+140°C
- **LR-Cal** PYROS Basic 375: +30°C...+375°C
- **LR-Cal** PYROS Basic 650: +35°C...+650°C at +20°C ambient temperature

For testing and calibrating of all kind of temperature instruments, e.g. dial thermometer, digital thermometer, temperature probes and sensors.

These innovative dry block temperature calibrators have been designed for on-site applications and for the severe conditions of the naval and marine sectors. Their ease of use, compact and practical design, make them unbeatable in industrial processes where the verification of the temperature measurement systems are a key issue for the control of the process and the quality of the final product. Special attention was paid to reduce the weight, to the small size and sound design obtained by using an aluminium body and aluminium and stainless steel for many internal parts. The appliance innovative ventilation system allows the calibrator to keep the temperature on the top of the oven lower compared to competitors' oven. The flow of air on the upper part of the oven is diverted to the rear of the appliance by a tangential flow that touches the calibration well. As a result, the heads of the test items remain at a considerably lower temperature reducing very much the compensation errors produced by the heads heating.

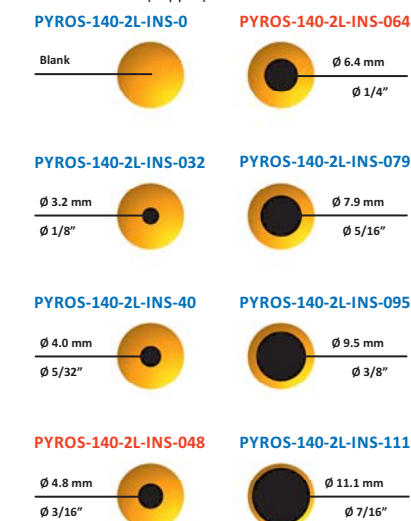


### Available block Inserts:

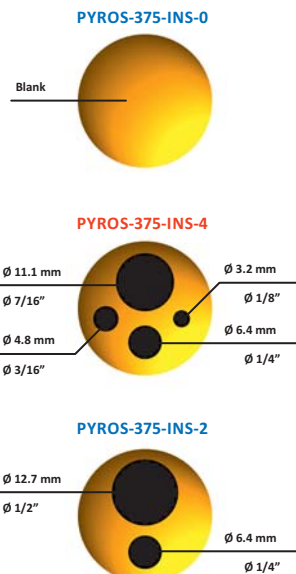
**LR-Cal** PYROS Basic 140-1L inserts:  
with 1 block (aluminium) 19 mm diameter.



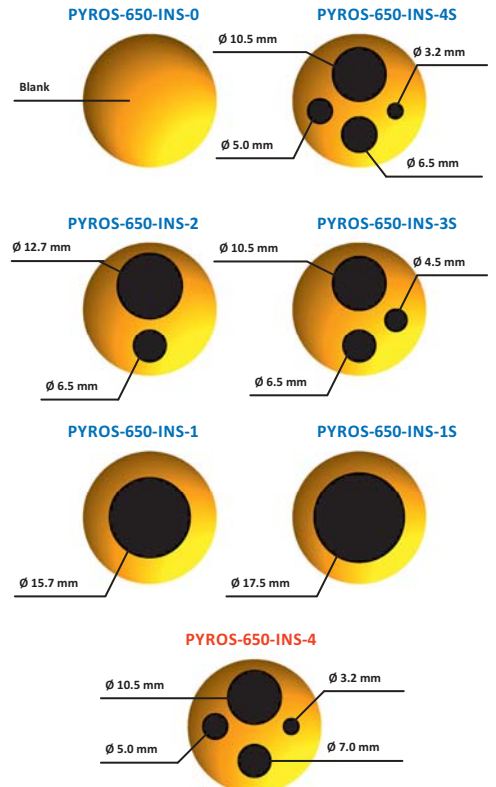
**LR-Cal** PYROS Basic 140-2L inserts:  
mit 2 blocks (copper) each 13 mm diameter



**LR-Cal** PYROS Basic 375 inserts:



**LR-Cal** PYROS Basic 650 inserts:



Blue = order-code  
Red = included in scope of standard delivery

TECHNICAL DATA	PYROS Basic 140-2L	PYROS Basic 140-1L	PYROS Basic 375	PYROS Basic 650	
Temperature range	-24...+140°C		+30...+375°C	+35...+650°C	
Mean heating time (incl. stabilization)	20 min. (+20...+120°C)		20 min. (+30...+375°C)	35 min. (+50...+650°C)	
Mean cooling time (incl. stabilization)	17 min. (+20...-20°C)		40 min. (+375...+100°C)	60 min. (+650...+100°C)	
Axial temperature uniformity	±0.05°C at -20°C ±0.04°C at 0°C ±0.10°C at +100°C	±0.25% at -20°C ±0.12°C at 0°C ±0.35°C at 100°C	a) ±0.10°C at +50°C a) ±0.20°C at +150°C a) ±0.30°C at +375°C	b) ±0.02°C at +50°C b) ±0.05°C at +150°C b) ±0.15°C at +375°C	±0.13°C at +250°C ±0.15°C at +450°C ±0.35°C at +650°C
uniformity between both blocks (at 40 mm depth)	±0.02°C at -20°C ±0.02°C at 0°C ±0.05°C at +100°C	n/a	n/a	n/a	
Radial temperature uniformity (at 40 mm depth)	n/a	±0.2% at -20°C ±0.1°C at 0°C ±0.35°C at 100°C	a) ±0.10°C at +50°C a) ±0.15°C at +150°C a) ±0.20°C at +375°C	b) ±0.05°C at +50°C b) ±0.10°C at +150°C b) ±0.15°C at +375°C	±0.22°C
Usable insertion depth in the metal block	104 mm	104 mm	150 mm	150 mm	
Hole diameter	2 x 13 mm	1 x 19 mm	26 mm	26 mm	
Display accuracy (±1 digit)	±0.25°C		±0.25°C at +150°C ±0.50°C at +375°C	±0.90°C	
Stability	±0.05°C		a) ±0.15°C b) ±0.10°C	±0.30°C	
Display resolution	0.1°C		0.1°C	0.1°C	
Temperature units	°C / °F		°C / °F	°C / °F	
Ovevr temperature cut out	nein		ja	ja	
Switch test	12 VDC		5 VDC	5 VDC	
Dimension	130 x 260 x 280 mm		130 x 260 x 280 mm	130 x 260 x 280 mm	
Weight	4.9 kg		5.4 kg	6.0 kg	
Power supply (±10%)	115/230 VAC		115/230 VAC	115/230 VAC	
Power consumption	80W		600W	600W	

All values are valid at ambient temperature +20°C.

Diameter of the sensor, used for testing the performances:

LR-Cal PYROS Basic 140-2L+ LR-Cal PYROS Basic 140-1L: Pt 100 diameter 3 mm

LR-Cal PYROS Basic 375 Pt 100 a) diameter 6 mm; b) diameter 3 mm

LR-Cal PYROS Basic 650 Pt 100 diameter 4,5 mm



Standard scope of delivery

**PYROS Basic 140-2L**

- Dry block calibrator
- Tweezers for insert removing
- Kit of spare fuses
- Connection cables for thermostat testing
- Operating manual
- Test certificate

**PYROS Basic 140 2L:** blocks made in copper

- 1 insert with 1 hole 4.8 mm
- 1 insert with 1 hole 6.4 mm

**PYROS Basic 140 1L:** block made in aluminium

- 1 insert with 4 holes  
3.3 + 4.8 + 6.4 + 6.4 mm

**PYROS-BASIC-140-2L**

**PYROS-BASIC-140-1L**



**PYROS Basic 375**

- Dry block calibrator
- Tweezers for insert removing
- Kit of spare fuses
- Connection cables for thermostat testing
- Operating manual
- Test certificate
- 1 insert with 4 holes  
3.2 + 4.8 + 6.4 + 11.1 mm

**PYROS-BASIC-375**



**PYROS Basic 650**

- Dry block calibrator
- Tweezers for insert removing
- Kit of spare fuses
- Connection cables for thermostat testing
- Operating manual
- Test certificate
- 1 insert with 4 holes  
3.2 + 5.0 + 7.0 + 10.5 mm

**PYROS-BASIC-650**



Optional accessories

**for PYROS Basic 140-2L**

	Order-Code
1 blank insert	PYROS-140-2L-INS-0
1 insert with 1 hole 3.2 mm	PYROS-140-2L-INS-032
1 insert with 1 hole 4.0 mm	PYROS-140-2L-INS-040
1 insert with 1 hole 4.8 mm	PYROS-140-2L-INS-048
1 insert with 1 hole 6.4 mm	PYROS-140-2L-INS-064
1 insert with 1 hole 7.9 mm	PYROS-140-2L-INS-079
1 insert with 1 hole 9.5 mm	PYROS-140-2L-INS-095
1 insert with 1 hole 11.1 mm	PYROS-140-2L-INS-111
1 soft bag	PYROS-TASCHE
1 plastic marine case IP67	PYROS-KOFFER

**for PYROS Basic 140-1L**

	Order-Code
1 blank insert	PYROS-140-1L-INS-0
1 insert with 4 holes 3.3 + 4.8 + 6.4 + 6.4 mm	PYROS-140-1L-INS-4
1 soft bag	PYROS-TASCHE
1 plastic marine case IP67	PYROS-KOFFER

**for PYROS Basic 375**

	Order-Code
1 blank insert	PYROS-375-INS-0
1 insert with 4 holes 3.2 + 4.8 + 6.4 + 11.1 mm	PYROS-375-INS-4
1 insert with 2 holes 6.4 + 12.7 mm	PYROS-375-INS-2
1 soft bag	PYROS-TASCHE
1 plastic marine case IP67	PYROS-KOFFER

**for PYROS Basic 650**

	Order-Code
1 blank insert	PYROS-650-INS-0
1 insert with 2 holes 6.5 + 12.7 mm	PYROS-650-INS-2
1 insert with 3 holes 4.5 + 6.5 + 10.5 mm	PYROS-650-INS-3S
1 insert with 4 holes 3.2 + 5.0 + 7.0 + 10.5 mm	PYROS-650-INS-4
1 insert with 4 holes 3.2 + 5.0 + 6.5 + 10.5 mm	PYROS-650-INS-4S
1 insert with 1 hole 15.7 mm	PYROS-650-INS-1
1 insert with 1 hole 17.5 mm	PYROS-650-INS-1S
1 soft bag	PYROS-TASCHE
1 plastic marine case IP67	PYROS-KOFFER

