

**MITRE**  
**SERIES**

**CO<sub>2</sub> Cell Culture Incubators-  
"Polar" Variants**

Contherm has achieved wide recognition as a manufacturer of high-precision environmental chambers for the laboratory professional. For incubation or examination, investigation, storage or testing, a wide range of temperature control is always a decisive pre-condition for success in many laboratories. To deal cost-effectively with these requirements, Contherm has developed the **Mitre Series "Polar" Variant** incubators to offer a new dimension in quality and versatility. With accurate and reliable control from 15°C to 50°C irrespective of higher ambient temperatures, and a true one-pass air circulation system, The **Mitre Series "Polar" Variant** Incubators enable quality incubating in the tropics, and B.O.D. work in temperate regions.

Plate and sample drying problems are greatly reduced, with high humidity levels being maintained due to the elevated dew point. Using proven technology, a precise environment is created for tissue and cell propagation. These models feature an anticipative logic system controlling both temperature and CO<sub>2</sub> levels, which is achieved through a combination of temperature/gas sensors and inject/recovery functions managed by the microprocessor system. A dedicated LED display monitors these functions. The Contherm Infra-Red CO<sub>2</sub> sensor is a modulated pyro-electric system developed for use in the humidified incubator environment. The sensor monitors CO<sub>2</sub> levels over a range of 0.3-19.9% with control of ±0.15%. Humidity levels higher than 70% RH at 37°C can be achieved using a more effective vaporisation technique. The Contherm microprocessor-based control system is EEROM backed to save set-points and calibration factors during power failures, with all models featuring alarm displays and automatic high/low limit protection. Within the sealed air jacket in the walls of the cabinet, air is circulated over a stainless steel sheathed tubular heater. The **Mitre Series "Polar" Variants** feature an attractive, corrosion-resistant finish on a steel exterior, with 50mm of specialised insulation surrounding the polished stainless steel interior and door. Adjustable non-tilt shelves are easily removed for cleaning and sterilisation, as are all the interior fixtures. Featuring unique catch and hinge componentry, the fully-sealed toughened NZS1223 glass inner door incorporates an integral heater to prevent condensation, and enhance the humidity and temperature envelopes.

The Contherm **Mitre Series "Polar" Variants** offer the research professional maximum performance and reliability, assuring consistent and repeatable results. Contherm incubators are equipment-friendly, and comply with AS/NZS 2064 EMC Standards. Manufactured in a quality production environment, these units are designed to AS/NZS3350 and IEC335 electrical standards.

*Creating the ideal biotechnical environment for cell culture, with controllability from 15°C to 50°C.*



Model 4150C Polar Variant

**NOW WITH  
INFRA-RED SENSOR**  
FOR MORE INFORMATION  
TALK TO CONTHERM

**Specifications**

Model	4150C	4200C	4400C
Exterior Dimensions (W x H x D)	630 x 920 x 860mm	790 x 960 x 910mm	790 x 1560 x 910mm
Interior Dimensions (W x H x D)	470 x 640 x 465mm	630 x 655 x 495mm	630 x 1240 x 495mm
Effective Capacity	150 litres	200 litres	400 litres
Shelves: Stainless Steel Perforated	3	3	6
Temperature Range	15°C to 50°C		
Temperature Accuracy:	Temporal Accuracy ±0.3°C Spatial Accuracy ±0.6°C		Tested Empty at: 37°C 20°C Ambient
Humidifying Method	Natural Vaporisation with Humidity Pan, more than 70% RH at 37°C.		
CO <sub>2</sub> Control	Microprocessor Control, Accuracy at 37°C 5% CO <sub>2</sub> ±0.5%. Dedicated LED Display		
CO <sub>2</sub> Range	0.3 - 19.9%		
Inlet CO <sub>2</sub> Supply Pressure	0.3kg/cm <sup>2</sup>		
Alarm System Output	Audible and Visual Alarm, Temperature, CO <sub>2</sub> , Door Ajar, Independent Overtemperature Protection		
Power Supply	550W at 230 Volt, 50hz Supply		750W /230 V, 50Hz
Weight	100kg	113kg	130kg
Packed Weight	106kg	127kg	147kg
Options (full list available)	HEPA Filter-Option HF; CO <sub>2</sub> cylinder Autochangeover-Option A; Cable Port-Option Z;		

Specifications subject to change without notice.



More technical information is available from the Contherm Techspec Library. Refer to our website for current information. The word 'Contherm' is the property of Contherm Scientific Ltd.

Warranty covers components and labour for 1 year. Full warranty applies only with regard to published price list. The information contained in this brochure is correct at time of printing but is subject to change without notice.

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