

**PRODUCT SPECIFICATION - ICO180**

# CO<sub>2</sub> Incubator ICO180



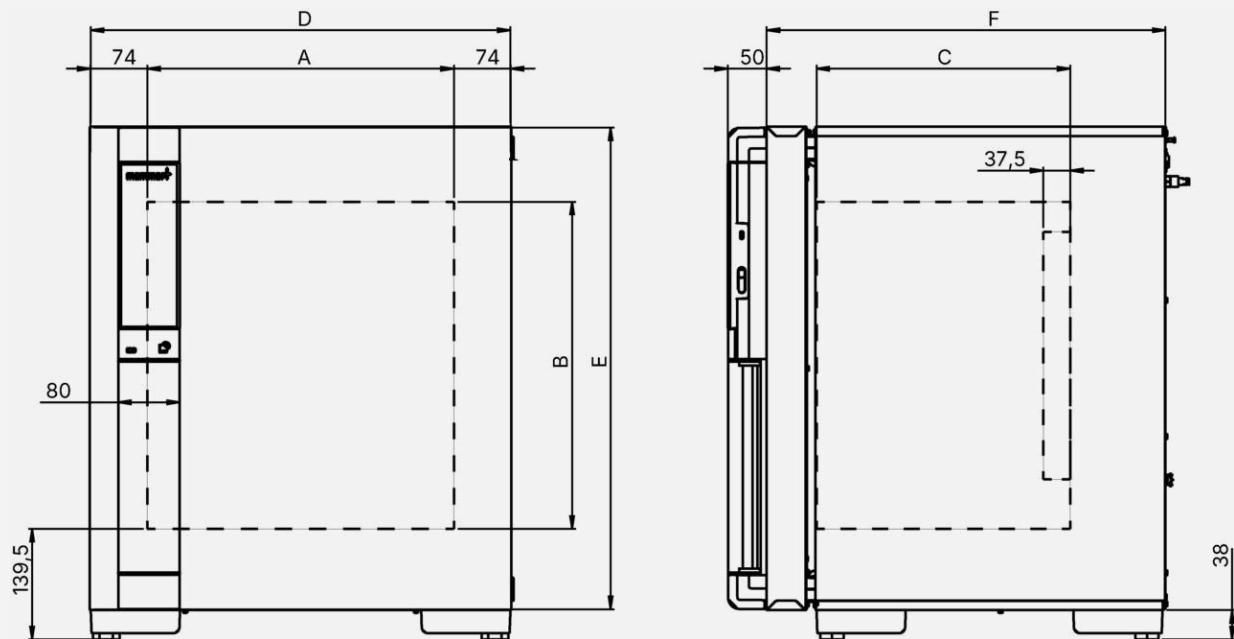
ICO CO<sub>2</sub> Incubator – The perfect environment for superior cell growth.

The Memmert ICO CO<sub>2</sub> incubator is designed to provide stable, homogeneous cultivation conditions for delicate cell cultures across research, development and clinical applications.

Precise temperature control, active humidification and dehumidification plus optimised airflow management ensure condensation-free stability inside the working chamber at 37 °C and 95 % RH.

## Features

- Condensation-Free at 37 °C / 95 % rH
- Modern Connectivity
- Memmert Quality
- ACT Label Certified



## Temperature

|                                |          |                                                                                                          |
|--------------------------------|----------|----------------------------------------------------------------------------------------------------------|
| Working temperature range      | °C       | at least 5 above room temperature to +50                                                                 |
|                                |          | Standard sterilisation programme: 60 minutes at 180 °C (without removing the sensors)                    |
| Setting temperature range      | °C       | +20 to +50                                                                                               |
| Setting accuracy               | °C       | 0.1                                                                                                      |
| Spatial temperature variation  | +37 °C K | ± 0.3                                                                                                    |
| Temporal temperature variation | +37 °C K | ± 0.1                                                                                                    |
| Temperature control system     |          | Large-area multi-zone multifunctional all-round heating with additional door, seal and rear wall heating |

### Humidity

|                       |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Setting range         | % rh | 40 to 98 and rh-Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Setting accuracy      | % rh | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Humidification system |      | <ul style="list-style-type: none"> <li>Passive humidification by means of an integrated water tank with condensate recirculation via a magnetically guided sealing lip. Humidity limitation via Peltier element.</li> <li>Active closed-loop humidity control (option K7) with capacitive sensor for precise measurement and complete documentation. Humidification via self-priming micro-dosing pump with hot steam generation, dehumidification via powerful diaphragm pump.</li> </ul> |

### CO<sub>2</sub>

|                                |                   |                                                                                                                                                                                           |
|--------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Setting range                  | % CO <sub>2</sub> | 0 to 20                                                                                                                                                                                   |
| Temporal fluctuation           | % CO <sub>2</sub> | ± 0.2                                                                                                                                                                                     |
| CO <sub>2</sub> control system |                   | Precise CO <sub>2</sub> control with dual-beam NDIR technology, integrated monitoring and pressure-compensated measurement. Filtered CO <sub>2</sub> supply for high process reliability. |

### O<sub>2</sub> (only with option T6)

|                               |                  |                                                                                                                                                                                                                     |
|-------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Setting range                 | % O <sub>2</sub> | 1 to 20                                                                                                                                                                                                             |
| Setting accuracy              | % O <sub>2</sub> | 0.1                                                                                                                                                                                                                 |
| O <sub>2</sub> control system |                  | Anaerobic O <sub>2</sub> control for targeted oxygen reduction via nitrogen inlet. Zirconium oxide sensor with integrated monitoring and error display. Filtered N <sub>2</sub> supply for safe process conditions. |

## Features

|                             |  |                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control unit                |  | 6.86" IPS touch display (480 × 1280 pixels) with multi-touch function for graphical display of actual/setpoint values and parameter curves.                                                                                                                                                                                                               |
| Adjustable parameters       |  | <ul style="list-style-type: none"> <li>• Temperature</li> <li>• CO<sub>2</sub></li> <li>• Relative humidity (requires option K7)</li> <li>• O<sub>2</sub> (requires option T6)</li> </ul>                                                                                                                                                                 |
| Adjustable device functions |  | <ul style="list-style-type: none"> <li>• Time zones</li> <li>• Display brightness</li> <li>• DistanceView (1–4 freely selectable parameters, adjustable activation time)</li> <li>• Network settings (IP, subnet, DHCP)</li> <li>• Language and volume settings (buzzer/key tone)</li> <li>• Power failure behaviour</li> <li>• Timer Function</li> </ul> |
| Language setting            |  | English (standard), German, French, Spanish, Portuguese, Chinese, Arabic, Hindi, Polish, Czech, Hungarian, Russian, Italian, Serbian                                                                                                                                                                                                                      |
| Timer                       |  | <ul style="list-style-type: none"> <li>• Timer - Process time starts immediately when the programme starts</li> <li>• Timer SetpointWAIT - Process time only starts after all setpoint values have been reached</li> <li>• Timer on Event - Process time starts at a defined point in time</li> </ul>                                                     |
| Calibrate                   |  | Three freely selectable values for temperature, humidity and CO <sub>2</sub>                                                                                                                                                                                                                                                                              |
| Interfaces                  |  | <ul style="list-style-type: none"> <li>• USB-C</li> <li>• Ethernet LAN</li> </ul>                                                                                                                                                                                                                                                                         |

## Safety

|                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parameter monitoring             |  | Dual Pt1000 sensor, DIN Class A, for mutual monitoring and automatic takeover in the event of a fault                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Alarm                            |  | visual and acoustic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Behaviour during a power failure |  | <p><u>Manual mode:</u></p> <ul style="list-style-type: none"> <li>• Power failure less than 24 hours: Active process is terminated, parameters remain stored.</li> <li>• Power failure longer than 24 hours: Operation continues with previously set parameters</li> </ul> <p><u>Programme mode (power failure &gt;1h):</u></p> <ul style="list-style-type: none"> <li>• Failure less than 1 hour: programme continues with remaining runtime</li> <li>• Failure longer than 1 hour: programme is stopped; query required to continue</li> </ul> |

### Standard equipment

|                               |           |                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Works calibration certificate |           | +37 °C, 5 %CO <sub>2</sub>                                                                                                                                                                                                                                                                                                                   |
|                               | Option K7 | +37 °C, 5 %CO <sub>2</sub> , 90 %rh                                                                                                                                                                                                                                                                                                          |
|                               | Option T6 | +37 °C, 5 %CO <sub>2</sub> , 90 %rh, 10 %O <sub>2</sub>                                                                                                                                                                                                                                                                                      |
| Door                          |           | fully insulated stainless steel doors with 2-point locking (compression door lock) and inner glass door                                                                                                                                                                                                                                      |
| Standard option               |           | Door-open detection                                                                                                                                                                                                                                                                                                                          |
| Type standard insert          |           | Stainless steel perforated shelf                                                                                                                                                                                                                                                                                                             |
| Number of slide-in units      |           | 2                                                                                                                                                                                                                                                                                                                                            |
| Other standard accessories    |           | <ul style="list-style-type: none"> <li>• CO<sub>2</sub> connection set, hose with connection coupling and hose clamp</li> <li>• Water dish (Basic equipment)</li> <li>• Water tank including connecting hose (requires Option K7)</li> <li>• Preset sterilisation programme: 60 minutes at +180 °C (without removing the sensors)</li> </ul> |

### Stainless steel interior

|                               |        |     |
|-------------------------------|--------|-----|
| Volume                        | l      | 177 |
| Width                         | mm     | 600 |
| Height                        | mm     | 590 |
| Depth                         | mm     | 500 |
| Max. number of grids/shelves  | number | 6   |
| Max. loading of chamber       | kg     | 90  |
| Max. loading of grids/shelves | kg     | 15  |

### Textured stainless steel casing

|              |    |                             |
|--------------|----|-----------------------------|
| Width        | mm | 748                         |
| Height       | mm | 793                         |
| Depth        | mm | 689                         |
| Installation |    | 4 adjustable appliance feet |

### Electrical data

|                 |       |   |      |
|-----------------|-------|---|------|
| Electrical load | 230 V | W | 1550 |
|                 | 115 V | W | 1550 |

### Ambient conditions

|                                                       |         |                             |     |
|-------------------------------------------------------|---------|-----------------------------|-----|
| Ambient temperature                                   | °C      | +10 to +35                  |     |
| Air humidity                                          |         | max. 70% non-condensing     |     |
| Altitude of installation                              |         | 2000 metres above sea level |     |
| Overvoltage category                                  |         | II                          |     |
| Pollution degree                                      |         | 2                           |     |
| Distance to neighbouring appliances / wall clearances | top     | mm                          | 200 |
|                                                       | back    | mm                          | 150 |
|                                                       | lateral | mm                          | 50  |

### Packing/shipping data

|                       |        |                                            |      |
|-----------------------|--------|--------------------------------------------|------|
| Transportinformation  |        | The appliances must be transported upright |      |
| Customs tariff number |        | 8419 8998                                  |      |
| Country of origin     |        | DE                                         |      |
| WEEE reg. no.         |        | DE 66812464                                |      |
| Packaging             | Width  | mm                                         | 925  |
|                       | Height | mm                                         | 1072 |
|                       | Depth  | mm                                         | 854  |
| Weight                | Net    | kg                                         | 98   |
|                       | Gross  | kg                                         | 116  |

Standard units are safety-approved and bear the test marks:

