Vacuum Ovens VO

	 3 model sizes from 29, 49 and 101 I temperature range 20°C bis 200°C textured stainless steel casing of material 1.4301 working chamber of electropolished stainless steel material 1.4404 additional interior mountings of stainless steel material 1.4404 tubings of stainless steel 1.4571 thermoshelf of stainless steel material 1.4404 full-sight glass door – anti-splitter screen outside, 15 mm safety glass, spring-loaded inside works calibration certificate for 160°C at 50 mbar
Digital Control and Heating System	 fuzzy-supported MLC-(Multi-Level- Control) micro-processor controller for each thermoshelf temperature measured through 4-wire PT 100 individually for each thermoshelf each thermoshelf with integrated large- area heating separate LED symbol for each thermo- shelf in operation actual temperature of each thermoshelf can be made visible on digital display
Vacuum Control	 fully automatic digital vacuum control through solenoid valves adjustable from 10 mbar up to 1100 mbar with a resolution of 1 mbar digital display of actual pressure from 5 mbar up to 1100 mbar two programmable, digitally controlled connections for air and inert gas integrated drying process control with programmable vacuum cycles for further reduction of already short drying times

Additional features of the "new generation vacuum ovens"	 7-day-programme timer with real time clock integral programme timer for 40 variable ramps, each 1 min. up to 999 hours alphanumeric digital display – selection of language via set-up long-term documentation of all relevant data via ring store 1024 kB serial interface RS232 or RS485 with MEMMERT software "Celsius 2005" for programming and documentation parallel printer interface for all PCL3-compatible ink-jet printers MEMory Card with 32 kB multiple overtemperature protection with audible and visual alarm – Automatic Safety Function "ASF" for over- and undertemperature following the setpoint at a preset tolerance range, electronic overtemperature, temperature limiter TB class 1 visualisation of operation sequence rapid air intake for door opening with programme reactivation at stored values
Available against extra charge	 Viton door seal IQ/OQ check lists for validation by customer "User-ID-Card" an oven-linked authorisation card to prevent manipulation through 3rd parties FDA-conforming software "Celsius 2005 FDA Edition"

Drying under vacuum demands highest standards as to material, safety and control. MEMMERT succeeded in combining their experience in thermostating for decades with advanced technology – easy handling, precision and maximum safety – digital technology, the perfect solution for vacuum drying ovens. The fully automatic digital vacuum control through solenoid valves offers a user convenience which MEMMERT-customers have been experiencing with the standard programme for many years.

Advantages compared to conventional systems:

- lowering of boiling point due to vacuum ensures gentle drying processes
- short heating-up times thus enormous energy saving thermoshelf heating reduces heatingup times by more than 70% compared with sidewall or external heating
- no heat losses due to thermoshelf heating positioned next to the load
- no "distorted" temperature values due to localised temperature measuring directly at the thermoshelf
- precise temperature control by fuzzy-supported MLC-mircoprocessor controller separately for each shelf
- easy and precise adjustment of vacuum by means of digital vacuum control
- "turbo-drying" due to programmable vacuum cycles

