

New Standards in Performance & Flexibility

EtherCAT® Product Selection Guide



AUTOMATION & CONTROL

PAC 100
Programmable Automation Controller

- Modular, scalable, and configurable programmable control solution
- Supports standard IEC 61131-3 environment
- Seamless interface with HMI, supporting OPC UA


AIO / DIO
Analog / Digital Input Output Modules

- Compact and high density solution for a variety of input and output ranges
- AIO module supports 8 analog inputs and 4 analog outputs, DIO module supports 12 digital inputs and outputs
- Integrates digital input and output channels with MKS PAC or CM modules


MultiTherm™ 2000
Modular Temperature Controller

- Configured for single zone or multi-zone temperature control (48+)
- Ideal for dynamic control applications requiring tight temperature stability
- Precision sensor input channels
- PID or external Model-Based Control down to 10ms


MicroNode™ I/O
Compact I/O Solution

- cLogic™ on-board C-compiler handles distribution of real-time logic tasks
- IP61 rated for use in harsh industrial environments
- Embedded web servers allow for graphical user interface for setup and diagnostics


CM
Communication Fieldbus Coupler Module

- Compact, customizable solution for standalone manual control, data logging, or distributed I/O, or ECAT gateway
- Scalable to any number of MKS I/O slices to create a distributed I/O support for up to hundreds of I/O channels


MicroNode™ Combo
Programmable Automation Controller

- Each MicroNode module supports 8 DIO
- Each module supports 16-bit, 8 analog inputs, 4 analog outputs, ±10V

FLOW / GAS DELIVERY

G-Series
Mass Flow Controllers and Meters

- Full Scale flow rates from 5 sccm to 250 slm
- Proven, patented thermal sensor and mechanical design
- Multi-range/multi-gas capability; 1% of set point accuracy


I-Series
Mass Flow Controllers and Meters

- Full Scale flow rates from 5 sccm to 1000 slm
- IP66-rated enclosure (dustproof & waterproof)
- Multi-range/multi-gas capability; 1% of set point accuracy


G-Series
Pressure Controllers

- Pressure control for Full Scale from 500 Torr to 100 psi
- Thermally stable pressure sensor for 1% of set point accuracy
- Digital flow control algorithm for fast response to set point


P-Series
Pressure Controllers

- Pressure control for Full Scale from 10 to 1000 Torr
- Thermally stable pressure sensor for 1% of set point accuracy
- Flow meter option for backside wafer pressure control applications


DELTA™
Flow Ratio Controllers

- Accurate and repeatable flow ratio control for better process optimization
- For use in cascade configurations
- Operates to temperatures up to 60°C ambient

ETG Profile in Definition Stage


HA-MFV
High Accuracy Mass Flow Verifier

- Superior 1.0% or better measurement accuracy
- Wide measurement range of 3 to 3000 sccm
- Wafer-to-wafer, chamber-to-chamber, and tool-to-tool process matching

PLASMA SOURCES



Paragon® Remote Plasma Sources

- For high gas dissociation rates (>98%) of NF₃
- Gas flows up to 8 slm and pressures up to 10 Torr
- Compatible with O₂ and NF₃ mixed gases



R*evolution® Remote Plasma Sources

- Integrated, self-contained unit for on-chamber installation
- Quartz plasma applicator, high density for oxygen species
- Up to 6 kW of plasma power

PRESSURE / VACUUM MEASUREMENT



DA02A Temperature-Controlled Baratron® Capacitance Manometer

- Sensor operating temperatures of 45°C, 80°C, 100°C
- Full Scale measurement ranges from 0.1 to 1000 Torr (13.3 Pa to 133.3 kPa)
- Inconel®-based sensor offers superior corrosion resistance to common process gases



DA03A High Temperature-Controlled Baratron® Capacitance Manometer

- Sensor operating temperatures of 150°C and 160°C
- Optional internally-mounted solid state process relays
- Excellent long-term stability



901P Load Lock Transducer

- Designed specifically for semiconductor load lock applications
- Providing medium vacuum measurement and atmospheric switching
- Fast and accurate pressure measurement for improved cycle time and particle reduction



925 MicroPirani™ Vacuum Transducer

- MEMS-based technologies, including MicroPirani™ technology
- Applicable for foreline and general vacuum measurement applications
- Fast and accurate pressure measurement



972B DualMag™ Cold Cathode Transducer

- Single transducer with wide pressure measurement range from atmosphere to ultra-high vacuum
- MEMS-based MicroPirani technology combined with cold cathode ionization technology
- Small footprint design provides a compact transducer solution, saving tool real estate

VALVES



T2B Exhaust Throttle Valve

- Advanced model-based pressure control algorithm
- High-speed configurations available (<250 msec. open to close)
- Selectable high torque drives with soft-sealing available



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