

# Pressure

# Measurement & Control

## Enabling

### Reliable **Pressure Management**

BARATRON® CAPACITANCE MANOMETERS  
PRESSURE MANAGEMENT SUBSYSTEMS  
BARATRON® PRESSURE TRANSDUCERS  
PRESSURE CONTROL VALVES

# Pressure Measurement & Control



**Baratron® Capacitance Manometers** — MKS offers a wide array of truly intelligent capacitance manometers that are application-specific to ensure long-term reliability. Our 631C model is designed for use at very high internal temperatures to minimize the deposition of harsh process byproducts and nearly eliminate output drift caused by such contamination. Also available are e-Baratron® manometers designed for new generation digital control networks. The digital backbone is combined with our industry standard Inconel® all-welded sensor and equipped with Ethernet communications. Our digital Baratron® family enables real-time diagnostics for quick, easy system analysis and troubleshooting.

**Baratron® Isolation System** — Incorporating multiple functions on one integrated platform, the process manometer and 700 Series ambient pressure transducer are combined with a process isolation valve and relay control module to provide a single chamber connection point to simplify pressure management.



## Baratron® Differential Capacitance Manometers —

The 226A is a general-purpose differential capacitance manometer designed for applications in industry, electronics manufacturing, and analytical equipment. It offers the same corrosion-resistant Inconel® sensor with new electronics and packaging to improve performance. This new generation manometer is mounted in a rugged industrial-grade housing that minimizes external RF/EM interference and is drop-in compatible with earlier manometer models.



**Power Supply & Readout** — MKS offers a versatile, CE marked, low cost solution for providing power and displaying pressure output values for the MKS Baratron® family of transducers. Up to two manometers may be operated from a single PDR2000. Readings are displayed on the front panel and are also available on demand via RS232 interface. Engineering units include Torr/mTorr or mBar/microBar.

**Pressure Transducers** — The 870B and 872B Micro-Baratron® transducers are high accuracy pressure transducers that offer superior value and performance. The building block design of Micro-Baratron pressure transducers make custom configuration easy. A highly accurate and stable sensor with sophisticated electronics optimizes performance with EMI/RFI insensitive, high level output. The 870B and 872B offer enhanced accuracy, long term stability and low temperature coefficients for superior repeatability—so important in today's gas measurement applications.





**High Speed Exhaust Throttle Valve** — The T3B Intelligent Exhaust Throttle Valve is specifically designed for applications where a simple pressure control system is desired. All control, communication, and driver circuits are integrated within the throttle valve assembly, thereby eliminating the need for mounting a separate pressure control electronics module. The model-based control algorithm and high speed operation drives the system to set point fast, with minimum overshoot, and ensures repeatable process recipes without operator involvement.



**Integrated Smart Throttle Valve** — Smart throttle valve is designed for OEM applications employing DeviceNet™ or RS-232 serial communications. Control, communication, and driver circuits are integrated via a compact add-on electronics module onto the field-proven 253 exhaust throttle valve. The valve includes a unique non-linear actuator between the motor output shaft and the controlling flapper shaft to linearize the valve transfer function and provide increased torque and resolution in the critical control region. The integrated Smart Valve significantly reduces costs—typically saving >20%.



**Throttling Isolation Valve** — MKS' throttling isolation valve provides the functionality of a control, isolation, and soft-start valve in one package. This valve is a simpler, less costly alternative to the combination shutoff gate, butterfly control, and softpump valves, and is ideal for batch processes. The valve's controller has features to reduce turbulence and the distribution of particles. The controller is available as either a full-featured front panel interface, or an OEM-style "black box". To reduce deposition, custom engineered, internally controlled heaters are available options for the valve and mating plumbing.

