

## **GRANVILLE-PHILLIPS® INDIRECT VACUUM GAUGES**

RELIABLE, PRECISE AND DEPENDABLE VACUUM MEASUREMENT TECHNOLOGY







### **GRANVILLE-PHILLIPS® INDIRECT VACUUM GAUGES**

#### VACUUM PRESSURE MEASUREMENT SOLUTIONS

Vacuum users worldwide turn to MKS Granville-Phillips® products for reliable, precise, dependable vacuum measurement technology for measuring pressure from 10<sup>-11</sup> to 1500 Torr. Our vacuum gauges, transducers, sensors and controllers are based on multiple pressure measurement technologies including Convectron®, Micro-Ion®, MicroPirani™, Piezo hot and cold cathode, Stabil-Ion®, and MEMS-based multi-sensor technology.

Whether your vacuum systems are used for semiconductor process tools, analytical instruments, educational or governmental research, or industrial processes, you face an assortment of challenges. MKS is the solution—providing accuracy, stability and dependability to improve the quality and productivity of your vacuum processes.

- Superior performance
- High accuracy
- Broad selection
- Easy integration
- Tailored solutions
- Trusted partner









#### MICROPIRANI™ VACUUM PRESSURE TRANSDUCERS

- Absolute pressure measurement from 1,000 to 10<sup>-5</sup> Torr
- 3 relays SPDT (optional)
- 0°C to 40°C (32° to 104°F) operating temperature
- Maximum bakeout temperature of 85°C (185°F), non-operating
- Wide measurement range
- Analog, RS232, RS485, EtherCAT output versions
- Optional integrated touch-screen display
- Models include: 901P, 925, 910

# MINI-CONVECTRON® VACUUM PRESSURE TRANSDUCER

- Absolute pressure measurement from atmosphere to 10<sup>-4</sup> Torr
- Basic models come with one or two setpoint relays for use as a pressure switch
- All-metal package
- RS485 or DeviceNet output versions
- Easy-to-read three-digit displays
- Model 275

# COLD CATHODE INVERTED MAGNETRON VACUUM GAUGE

- Absolute measurement range from 1x10<sup>-8</sup> to 0.005 Torr
- Three user-configurable relays for process control
- Small footprint design
- Analog, RS232, or RS485 ouput versions
- Optional integrated touch-screen display
- Models include: 971B, 972B, 974B

#### MICRO-ION® PRESSURE TRANSDUCERS

- Vacuum pressure measurement to 10<sup>-9</sup> Torr
- Rugged, all-metal enclosure
- Small footprint design
- Optional local display aids for setup and diagnostics
- Models include: 355, 390, 392

### **Indirect Vacuum Gauge Selection Guide**









# VACUUM PRESSURE SENSORS

- Accurate vacuum measurement from the 10<sup>-2</sup> Torr range
- Convectron-enhanced extends pressure measurement to atmosphere
- Stabil-Ion Gauge has memory module with calibration data
- Ultra-clean gauge construction allows rapid response during pumpdown
- Wide selection of vacuum fittings for simple installation
- Models include: 370, 275, 423

## BAYARD-ALPERT SENSORS

- Small footprint design
- All-metal, glass tubulated, and nude sensors available
- Burn-out resistant filaments
- Low power
- Models include: 355, 274 Glass Tube, 274 Nude Tube

## VACUUM GAUGE CONTROLLERS

- Vacuum pressure measurement from 1x10<sup>-4</sup>
   Torr to atmosphere
- Analog outputs, setpoint relays, and serial communication options
- Rack and bench-mount models available
- Menu controls for configuration and parameter setup
- RoHS and CE compliant
- Models include: 475, 358, 370, 307, 350, 937B, 946
   PDR900



#### WHY MKS?

#### CRITICAL TECHNOLOGIES

World-class technology and development capabilities for leading-edge processes

### PROVEN

Recognized leader delivering innovative, reliable solutions for our customers' most complex problems





### OPERATIONAL EXCELLENCE

Consistent execution across all aspects of our business

### COMPREHENSIVE PORTFOLIO

Extensive offering of products and services for the markets we serve





### MKS Pressure & Vacuum Measurement Solutions

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#### **MKS Corporate Headquarters**

2 Tech Drive Andover, MA 01810 +1 978-645-5500 **MKS INC.** enables technologies that transform our world. We deliver foundational technology solutions to leading edge semiconductor manufacturing, electronics and packaging, and specialty industrial applications.

We apply our broad science and engineering capabilities to create instruments, subsystems, systems, process control solutions and specialty chemicals technology that improve process performance, optimize productivity and enable unique innovations for many of the world's leading technology and industrial companies.

Our solutions are critical to addressing the challenges of miniaturization and complexity in advanced device manufacturing by enabling increased power, speed, feature enhancement, and optimized connectivity. Our solutions are also critical to addressing ever-increasing performance requirements across a wide array of specialty industrial applications.

Additional information can be found at www.MKS.com.

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