

# MAKING SENSE OF SENSING

Cutting Edge Sensing Technology  
for the Connected World



**Honeywell**

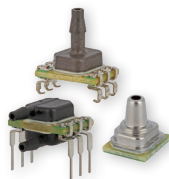
# SENSE THE OPPORTUNITIES

From medical to transportation, from industrial to aerospace, sensors are everywhere. These foundational devices collect the essential data customers need to make informed decisions and take action.

Honeywell is a leading global supplier of custom-engineered sensors, switches, machine safeguarding and other devices offering enhanced precision, repeatability and durability to a variety of original equipment manufacturers. We are taking the next step to advance our sensing technology by adding cutting-edge intelligence capabilities from the Internet of Things and cloud-based computing to our sensors.

## BASIC PRESSURE SENSOR ABP2 SERIES

Honeywell Basic ABP2 board-mount pressure sensors provide outstanding performance and value. Our extensive portfolio is offered with a wide choice of ports, package types, outputs and pressure ranges. ABP2 sensors support an extended pressure and temperature range and can be utilised in a wide range of medical, industrial and commercial applications.



### FEATURES

- Great performance and value
- Pressure range: 10 mbar to 12 bar
- Compensated temperature: -40° to 110°C
- Extensive portfolio (>20K configs)
- Analogue & digital (I<sup>2</sup>C/SPI)
- Evaluation/sample kits

### BENEFITS

- Enhances equipment performance/accuracy
- Used in for medical, industrial and consumer applications
- Ideal for portable equipment and battery-powered applications
- Reduces design-in time and costs



### MEDICAL

- Ventilators
- Anesthesia machines
- Kidney dialysis machines
- Sleep apnea equipment
- Nebulizers
- Spirometers
- Surgical/dental (suction)



### INDUSTRIAL

- Gas flow instrumentation
- HVAC filter detection
- Air quality meters
- Pressure meters
- Compressors
- Liquid level
- Vacuum equipment



### COMMERCIAL

- Washing machines
- Dish washers
- Coffee machines
- Humidifiers
- Air beds

# MICROPRESSURE MPR SERIES

Honeywell MicroPressure is a small-form factor amplified board-mount pressure sensor with digital output. Temperature compensated and fully compatible with a wide variety of media (liquids and gases), the MPR is offered with 2x port options. The small-form factor, low power consumption and low cost makes it an ideal solution for new designs.



## FEATURES

- Pressure range: 60 mbar to 2.5 bar
- Small-form factor: 5 mm x 5 mm
- Digital output: I<sup>2</sup>C or SPI
- Liquid media compatible
- Long port: tubes
- Short port: manifold mount

## BENEFITS

- Enhances equipment performance
- Enables new designs and applications
- Ideal for portable equipment and battery-powered applications
- Reduces design-in time and costs



## MEDICAL

- Sleep apnea equipment
- Nebulizers
- Spirometers
- Blood pressure monitors
- Surgical/dental (suction)
- Disposable pressure transducers



## INDUSTRIAL

- Gas flow instrumentation
- Boiler application
- Pressure meters
- Liquid level
- Vacuum equipment



## COMMERCIAL

- Washing machines
- Dish washers
- Coffee machines
- Humidifiers
- Air beds

# BOARD-MOUNT PRESSURE TRUSTABILITY® SERIES

Honeywell TruStability board-mount pressure sensor family provides industry-leading performance, accuracy, reliability and value. The extensive portfolio is offered with a wide choice of ports, package types, outputs and pressure ranges. Used in a wide range of medical and industrial applications, TruStability sensors are endorsed by leading OEMs.



## FEATURES

- High accuracy & performance
- Extensive portfolio (>100K configs)
- Amplified: RSC, HSC, SCC & DPR
- Unamplified: TSC & NSC
- Analogue & digital (I<sup>2</sup>C/SPI)
- Evaluation/sample kits

## BENEFITS

- Enhances equipment performance/accuracy
- Used in medical, industrial and other applications
- Ideal for portable equipment & battery-powered applications
- Reduces design-in time and costs



## MEDICAL

- Ventilators
- Anesthesia machines
- Kidney dialysis machines
- Diagnostic equipment
- Laboratory equipment
- Spirometers



## INDUSTRIAL

- Gas flow instrumentation
- HVAC filter detection
- Air quality meters
- Pressure meters

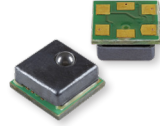


## OTHER

- Drones
- Airflow probes
- Military/marine equipment

# MICRO FORCE FMA SERIES

Honeywell MicroForce is a small-form factor amplified board-mount force sensor with digital output. The small-form factor, low power consumption and low cost makes it an ideal solution for new designs.



## FEATURES

- Force range: 15N to 25N
- Small-form factor: 5 mm x 5 mm
- Digital output: I<sup>2</sup>C or SPI
- Coupling: metal ball

## BENEFITS

- Enhances equipment performance
- Enables new designs and applications
- Ideal for battery-powered applications
- Reduces design-in time and costs



## MEDICAL

- Volumetric infusion pump
- Ambulatory infusion pump
- Endoscopy
- Diagnostic equipment
- Laboratory equipment
- Medical robots



## INDUSTRIAL

- Industrial robots
- Automation equipment
- Non-invasive liquid flow measurements
- Weight measurements



## OTHER

- Test equipment
- Tension control
- Coffee machines

# HEAVY-DUTY PRESSURE TRANSDUCERS MIP SERIES

The MIP Series offers a heavy-duty, media-isolated pressure transducer in a compact, stainless steel construction for use with a wide range of media including aggressive fluids and water.

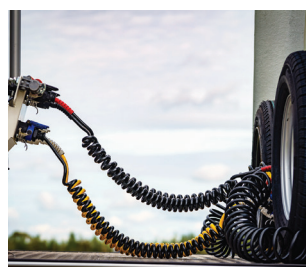
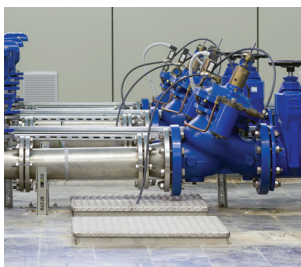
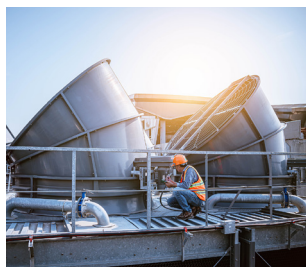


## FEATURES

- Rugged, stainless steel construction
- Ratiometric output: 0.5 Vdc to 4.5 Vdc
- Operating temperature: -40°C to 125°C
- Total Error Band  $\pm 0.75$  %FSS to  $\pm 1.0$  %FSS (-40°C to 125°C)
- Industry-leading accuracy:  $\pm 0.15$  %FSS BFUL
- Long-term stability:  $\pm 0.25$  %FSS

## BENEFITS

- Provides true measurement performance over the compensated temperature range: small error promotes system uptime and efficiency
- Operates reliably in the presence of electromagnetic fields
- Hermetically welded design supports almost any media without the use of an internal seal



## HVAC & REFRIGERATION

- Heat pumps
- Chillers
- Refrigerant systems
- Variable refrigerant flow (VRF) systems
- Discharge and suction pressure monitoring
- Variable speed and HVAC
- Compressor oil pressure monitoring
- Condensor fan control

## PROCESS & INDUSTRIAL

- Pumps (water and hydraulic)
- Agriculture & irrigation
- Water meters
- Gas leak detection
- Machinery (hydraulic, water, air)
- Air compressors
- Water heater and boilers
- Waste and water management
- Liquid level measurement

## TRANSPORTATION

- Engine oil
- Brake booster
- Air brakes
- Air conditioning/HVAC
- Air/vacuum systems
- Transmissions
- Crank case pressure
- Air suspension
- Occupant detection
- LPG & CNG tank pressure
- Marine and railway equipment

# PARTICULATE MATTER SENSORS

Particle sensors play a critical role in measuring the quality of air we breathe to help protect health and wellbeing.



## FEATURES

- Laser-based light scattering particle sensing
- Concentration range: 0  $\mu\text{g}/\text{m}^3$  to 1,000  $\mu\text{g}/\text{m}^3$
- Accuracy:  $\pm 15\%$
- $< 6$  s response time

## BENEFITS

- Accurate and cost-effective monitoring of particulate matter
- Proven EMC performance provides accuracy in a variety of industrial environments
- Ten year operational life provides long term stability for continuous use
- Response time of  $< 6$  s responds to environmental conditions in real time



## HVAC

### *Commercial & Residential*

- Air conditioners
- Air quality monitors
- Demand controlled ventilation
- HVAC performance analysis

## ENVIRONMENTAL MONITORING

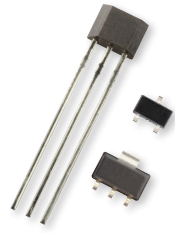
- Weather stations
- Automotive cabin air purifiers and monitoring
- Public information displays
- Handheld air quality detectors

## CONSUMER PRODUCTS

- Indoor air quality monitors
- Air purification
- Air conditioners
- Baby monitors

# HIGH SENSITIVITY HALL-EFFECT SENSORS

A suitable alternative to reed switches in applications where traditionally used.



## FEATURES

- 7 Gauss typical sensitivity
- Surface mount SOT-23 housing
- Stable over entire operating temperature range
- Solid state technology
- Plastic-molded housing
- Ultra low power 360 nA version

## BENEFITS

- Similar or higher sensitivity
- Smaller than equivalent reed switches
- More reliable magnetic characteristics
- Does not wear out over time
- More robust than glass bulbs
- Suitable for battery operated devices



## FLOW SENSING, INCLUDING SMART UTILITY METERS

- Counting mechanism
- Anti-tamper switches
- Solenoid valves with embedded flow meter



## BUILDING ACCESS AND SECURITY

- Door/window alarm sensors
- Smart home connected applications
- Smart handles
- Digital key locks



## WHITE GOODS AND POWER TOOLS

- Door/lid position detection
- Liquid level and flow monitoring for washing machines and dishwashers
- Selector switch on battery operated light appliances/DIY and gardening power tools

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