

Sensors and Switches for Potential Heating, Ventilation, Air Conditioning, and Refrigeration Applications

Honeywell

Board Mount Pressure Sensors



TruStability® HSC Series, SSC Series

Heavy Duty Pressure Transducers



PX2 Series

Digital Humidity/Temperature Sensors



Honeywell HumidIcon™
HIH6100, HIH6000, HIH7000,
HIH8000, HIH9000 Series

Airflow Sensors



Honeywell Zephyr™
HAF Series

Temperature Probes



R300, 6655 Series

Magnetic Position Sensor ICs



SS461R/SS361RT, SS30AT, SS40A, SS40F,
SS40G, SS42R, APS00B, SS490 Series

Current Sensors



CSNX25 Series

Pressure Switches



5000 Series

MICRO SWITCH™ Premium Large Basic Switches



BZ, WA, DT Series

MICRO SWITCH™ Premium V-Basic Switches



V7 Series

MICRO SWITCH™ Standard V-Basic Switches



V15 Series

MICRO SWITCH™ Premium Miniature and Subminiature Switches



V15 Series

MICRO SWITCH™ Standard Miniature and Subminiature Switches



ZM, ZW, ZX Series

Work Smarter with Honeywell Sensors and Switches

Board Mount Pressure Sensors

Used to monitor differential pressure for variable air volume control, static duct pressure, clogged filter detection, transmitters, and indoor air quality

- **Proprietary Honeywell technology:** Combines high sensitivity with high overpressure and burst pressure that provides flexibility in sensor implementation and reduces design requirements for protecting the sensor (Ultra-low Pressure Sensors)
- **Industry-leading long-term stability:** Helps minimize system calibration needs and maximize system performance
- **Industry-leading Total Error Band:** Provides the sensor's true accuracy, which eliminates individually testing and calibrating every sensor
- **Industry-leading accuracy ($\pm 0.25\%$ FSS Best Fit Straight Line):** Reduces software needs to correct system inaccuracies, minimizing system design time

Heavy Duty Pressure Transducers

Used to monitor system performance for proper environment control of compressor inlet and outlet pressure, rooftop chillers, compressor rack rooms, refrigerant recovery systems, and compressor oil pressure

- **Industry-leading configurability:** Variety of connectors, ports, pressure types/ranges, and output options provide ability to meet application needs
- **Industry-leading cost-effectiveness:** Configurability helps reduce design and implementation costs of the end product
- **Industry-leading Total Error Band ($\pm 2\%$):** Provides the transducer's true accuracy, which eliminates individual transducer testing and calibration
- **Industry-leading Six Sigma design standards:** Provides the highest level of product quality, performance, and consistency
- **Durable:** Compatibility with a variety of moderately harsh media (i.e., brake fluid, refrigerants, engine oil, tap water, hydraulic fluids, compressed air), wide operating temperature range, up to IP69K sealing, and CE compliance allow for use in tough environments

Honeywell HumidCon™ Digital Humidity/Temperature Sensors

Used to maintain occupant comfort or ideal perishable storage humidity and temperature levels via precise relative humidity (RH) and temperature measurement

- **Industry-leading long term stability (1.2 %RH over five years):** Minimizes system performance issues, helps support system uptime by eliminating the need to service or replace the sensor during its application life, and eliminates the need to regularly recalibrate the sensor in the application
- **Industry-leading reliability (MTTF 9,312,507 HR):** Thermoset-polymer capacitive sensing element's multilayer construction provides resistance to most application hazards such as condensation, dust, dirt, oil, and common environmental chemicals, which help provide industry-leading reliability.
- **Lowest total cost solution:** Delivers the lowest total cost solution due to the sensor's industry-leading combined humidity/temperature sensor
- **Combined humidity and temperature sensor:** Allows the RH measurement to be temperature compensated, and provides a second, standalone temperature sensor output; allows the user to purchase one sensor instead of two

Honeywell Sensing and Control

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Airflow Sensors

Used to monitor mass airflow for VAV controllers and in-line transmitters

- **High accuracy (2.5%):** Allows for very precise airflow measurement
- **High sensitivity at very low flows:** Allows the customer's application to detect the presence or absence of airflow
- **High stability:** Reduces errors due to thermal effects and null shift to provide accurate readings over time
- **Low pressure drop:** Reduces noise and system wear in motors/pumps
- **Saves customers time and money:** Linear output provides a more intuitive sensor signal than the raw output of basic airflow sensors, often eliminating having to linearize the output which can help reduce production costs

Temperature Probes

Used in temperature controllers in HVAC applications and for thermostat control, refrigerant, and compressor temperature monitoring in refrigeration applications

- **Fast response time:** Optimizes performance (R300 Series)
- **Reliable:** Durable, stainless steel closed-tip design maximizes reliability in aggressive environments (R300 Series)
- **Flexible:** Wide variety of packages, R-T curves, termination styles, and housing materials (6655 Series)
- **Reliable:** Stable output over many demanding environmental conditions promotes maximum system life (6655 Series)
- **Efficient:** Excellent interchangeability reduces or eliminates calibration in the customer's manufacturing process (6655 Series)

Magnetic Sensor Integrated Circuits

Used in brushless DC motors to help them run more smoothly, quietly, and efficiently

- **Sensitive:** Enhanced sensitivity often allows for the use of less expensive magnets
- **Small size:** Requires less printed circuit board space, allowing use in smaller assemblies
- **Energy efficient:** 3 V capability allows for use in low voltage applications
- **Cost effective:** Available on tape and reel for use in many high volume applications

Current Sensors

Used for energy management, amp draw status, and kilowatt consumption

- **Small size:** Requires less printed circuit board space, allowing for use in smaller assemblies
- **Flexible:** Industrial operating temperature range; current sensing up to 1275 A (depending on product)
- **Approvals:** CE, UL

Pressure Switches

Used to monitor steam pressure in boilers to prevent a potentially explosive situation

- **Enhances safety:** Over-pressure protection provides enhanced end user safety
- **Reliable:** Enhanced reliability helps reduce potential liability associated with safety applications
- **Customizable:** Standard mounting configurations and broad set points provide ability to customize to needs

MICRO SWITCH™ Premium

Large Basic Switches

High performance mechanical switching for furnaces/boilers, direct-acting damper actuators, and valve position detection

- **Widely accepted:** Accepted as the world-wide standard snap-action switch
- **Flexible:** Current ratings from 10 A to 25 A
- **Durable:** Designed to withstand 100K operations at full load or 10M for mechanical life
- **Approvals:** UL/CSA, CE, ENEC

MICRO SWITCH™ Premium V-Basic Switches

High performance mechanical switching for furnaces/boilers, direct-acting damper actuators, and valve position detection

- **Durable:** Designed for 100K operations at full load or 10M for mechanical life
- **Widely accepted:** World-wide package size acceptance
- **Flexible:** Current rating ranges from 0.1 A to 25 A
- **Approvals:** UL/CSA, ENEC

MICRO SWITCH™ Standard V-Basic Switches

Mechanical switching for furnaces/boilers, direct-acting damper actuators, and valve position detection

- **Durable:** Designed for 50K operations at full load or 5M for mechanical life
- **Widely accepted:** World-wide package size acceptance
- **Flexible:** Current ratings from 5 A to 26 A
- **Approvals:** UL/CSA, CUL, ENEC, CQC

MICRO SWITCH™ Premium Miniature and Subminiature Switches

High performance mechanical pressure switching for furnaces/boilers, direct-acting damper actuators, and valve position detection

- **Small size, light weight:** Simplifies use in the application
- **Easy to install:** Elongated mounting hole provides for easier, more accurate mounting
- **Approvals:** UL/CSA, CE, ENEC; MIL-PFR-8805 qualified listings available

MICRO SWITCH™ Standard Miniature and Subminiature Switches

Mechanical switching for furnaces/boilers, direct-acting damper actuators, and valve position detection

- **Small size, light weight:** Simplifies use in the application
- **Flexible:** Choice of low energy or power duty electrical ratings (gold-plated or silver contacts); covered case construction with molded-in terminals; choice of ratings, actuation, termination, and operating characteristics
- **Approvals:** UL/CSA, CE, ENEC; MIL-PFR-8805 qualified listings available

While Honeywell provides application assistance personally, through its literature and the Honeywell Web site, it is up to the customer to determine the suitability of the product in the application.

Honeywell