Work Smarter with Honeywell Switches and Sensors

Due to the high cost of energy, HVAC systems need to be efficient, accurate, and reliable. Honeywell’s broad line of sensors and switches covers HVAC control, monitoring, temperature, and more while maintaining energy efficiency and accuracy. Honeywell provides industry-leading products with the latest technology that are easy to install and maintain while providing precise, dependable performance.

A. Measures differential pressure
   - Board Mount Pressure Sensors: TruStability™ RSC, HSC, and SSC Series; Basic ABP Series

B. Monitors pressure to prevent a potentially explosive situation
   - Pressure Switches: HP, HE, ME, LP, LE Series

C. Maintains occupant comfort for desired humidity and temperature levels
   - Humidity Sensors: Honeywell HumidIcon™: HIH6000, HIH6100, HIH7000, HIH8000 Series

D. Monitors system performance for proper environmental control
   - Heavy Duty Pressure Transducers: PX2 Series, PX3 Series, MLH Series, MIP Series

E. Monitors temperature
   - Packaged Temperature Sensors: R300 Series, 6655 Series, 500 Series, LTP Series

F. Provides high-performance mechanical switching
   - MICRO SWITCH V-Basic Miniature Switches: V9, WA Series; DT Series
   - MICRO SWITCH V-Basic Subminiature Switches: SM Series, SX Series, ZM, ZW, ZX Series

G. Enables efficient control of the electric motors that drive fans, blowers and pumps

H. Measures and monitors airflow
   - Airflow Sensors: HAF Series, AWN1000 Series

I. Provides energy management, amperage draw status, and kilowatt consumption
   - Current Sensors: CSN/CS5 Series

J. Controls power and other functions near flammable hydrocarbon refrigerants
   - MICRO SWITCH Toggle Switch: NT Series

K. Provides temperature control or over-temperature protection
   - Commercial Thermostats: 2450 Series, 2455 Series
PRESSURE SENSORS AND TRANSDUCERS

Board Mount Pressure Sensors, Basic ABP Series
- Cost effective, energy efficient, calibrated, and temperature compensated
- As small as 8 mm x 7 mm
- Industry-leading long-term stability of ±0.25 %
- Industry-leading ΔK (±0.1 ‰) @ ±25 °F FS5 B5L
- Total Error Band of ±1.45 FS5
- Pressure range of 60 mbar to 1 bar @ ±5% FS5 @ ±150 °C, ±5% (27 °C)
- Wide variety of pressure ports, compatible with many industry standards
- Low operating voltage and extremely low power consumption
- Wide variety of pressure ports and packages styles available

Heavy Duty Pressure Transducers, PX3 and PX2 Series
- Designed for configurability, multiple port, compatible with many industry standards
- Pressure range: 1 to 50 bar (PX3) or 1 to 70 bar (PX2)
- Total Error Band of ±1.45 FS5 typ. (PX3) or ±2.0 FS5 typ. (PX2)
- Compatibles with common HF, refrigerants, and low GW refrigerants such as R32 and R123/42
- Pressure range of 50 psid to 8000 psid (inclusive)
- Voltage and current ΔmA to 20 mA output options
- Rated IP65 or better for protection against harsh environments

Heavy Duty Pressure Transducers, MIP Series
- Rugged stainless steel 310L construction
- Compatible with a wide range of fluids and gases
- Reliable performance over temperature range
- Outstanding EMI/EMC performance
- RoHS, REACH and CE compliant

Heavy Duty Pressure Transducers, MLH Series
- Compatible with ammonia, common HFC refrigerants, and many low GW refrigerant refrigerant generations such as R32 and R123/42
- Pressure range of 50 psig to 8000 psig (inclusive)
- Voltage and current ΔmA to 20 mA output options
- Rated IP65 or better for protection against harsh environments

HALL-EFFECT/MAGNETORESISTIVE SENSORS

Bipolar Hall-Effect Position Sensor ICs, SS30AT/SS40A
- Sensitive bipolar magnetic fields respond to North and South poles
- Miniature (SS40A) and subminiature (SS30AT) sizes fit small spaces
- Durability through mechanical stress and shock protection
- Thermally balanced integrated circuit for stable operation over full temperature range of -40 °C to +125 °C (+25 to 275 °F)

Latching Hall-Effect Digital Sensor ICs, SS361RT/SS461R
- Small, versatile digital Hall-effect devices operate off of magnetic field from a permanent magnet or an electromagnet
- Enhanced immunity often allowing use of less expensive magnetics
- Miniature package size, built-in reverse voltage protection
- Low operating current ΔmA to 20 mA output options
- Broad temperature range "40 °C to +125 °C (+25 to 275 °F)"

Linear Hall-Effect Sensor ICs, SS4590 Series
- Small size with low power consumption
- Single current sinking or current sourcing linear output
- Built-in isolated thin-film resistors allow sensitivity and temperature compensation
- Rail-to-rail operation provides more usable signal for higher accuracy
- Does not require external pull-up resistor (SS357LF/SS357LF)
- Quad Hall sensoring element for stable output

Magnetoresistive Sensor ICs, NanoPower Series (SM353LT/SM353LT; Standard Power (SM353L/SM353L))
- SOT-23 package (SM353LT/SM353L/SM353L/SM353LT), flat TD: 0.2-style (SM353L/SM353L/SM353L)
- Sensitivity of 7 G typ. 11 G max (SM353L/SM353L/SM353L/SM353L/SM353L/SM353L), 14 G typ. 20 G max (SM353L/SM353L/SM353L/SM353L/SM353L/SM353L)
- Supply voltage of 360 mV typ. (SM353L), 310 mV typ. (SM353L), 3.6 V to 24 Vdc (SM353L/SM353L/SM353L/SM353L/SM353L)
- Omnipolar sensing activates with either pole from a magnet
- Temperature range of -40 °C to 85 °C (-40 to 185 °F)
- Does not require external pull-up resistor (SM353L/SM353L)
- Non-chopper stabilized design (SM353LT/SM353L)

Magnetoresistive High-Res Magnetic Displacement Sensor ICs, AP500B
- Cost-effective for high volume OEM designs
- Wide, angular range allows measurements of ±90° without additional components
- Measures only field direction, virtually unaffected by shock, vibration, magnetic source gap variation
- Low power consumption (5 V ± 4 mA) promotes energy efficiency
- Tape and reel packaging

HUMIDITY/TEMPERATURE SENSORS

Digital Humidity/Temperature Sensors, Honeywell Humidicon™

HIH6000, HIH6100, HIH7000, HIH8000 Series
- Humidity or temperature sensor with integrated humidity and temperature sensor
- Industry-leading long-term stability (1% RH over five years)
- Industry-leading reliability (MTTF: 3.122 370 HR)
- Industry-leading low cost per unit cost
- Lowest total cost solution, true, temperature-compensated digital PC or SPI output
- Energy efficient, ultra-small package

Immersion Packaged Temperature Sensors, R300 Series
- One-piece, positive, relative temperature device (RTD), high temperature probe
- Excellent reliability, response time, and accuracy
- Operating temperature range of -40 °C to 725 °C (+40 to 1367 °F), continuous
- Durable stainless steel closed tip design

Surface Packaged Temperature Sensors, 500 Series
- Bi-directional accuracy and surface temperature probes
- Small, easy-to-install assemblies
- Enhanced reliability, precision, sensitivity, and stability for greater flexibility
- Operating temperature range of -60 °C to +100 °C (-76 °F to 212 °F)
- Wide variety of housing styles and materials; custom options available

Air, Surface Packaged Temperature Sensors, 6655 Series
- Thermally isolated from temperature environments
- For use in surface/pipe temperature applications in non-condensing environments
- Wide operating temperature range of -20 °C to 110 °C (+4 °F to +230 °F)
- Extended life and stable output; enhanced accuracy and response time
- Small size; variety of packages, R, T, K, and J types, terminal styles, and housing materials

Commercial Thermostats, 2450 Series, 2455 Series
- Configurable with multiple temperature inputs
- Small size with no programming required
- Operating temperature ranges of 0 °C to 200 °C (32 °F to 392 °F)
- Industrial operating temperature range, small size, and weight

Closed Loop Current Sensors, CSN2X5 Series
- Best suited for high cost-of-failure applications
- Current range of ±100 mA to ±10 A (depending on product listing)
- Measures ac, dc, and impulsive currents
- Competitive cost/benefit ratio
- Rapid response and high overload capability

AIRFLOW SENSORS

Honeywell Zephyr™ High Accuracy Airflow Sensors, HAF Series
- Small size with low power consumption
- Small volume current sinking or current sourcing linear output
- Built-in thin-film resistors, laser-trimmed for precise sensitivity and temperature compensation
- Rail-to-rail operation provides more usable signal for higher accuracy
- Responds to either positive or negative gauze
- Quad Hall sensing element for stable output

Signal Conditioning Airflows, AWLM000 Series
- Accurate, reliable, industrial sensing capability
- Low differential pressure sensing

MICRO SWITCH BASIC SWITCHES

MICRO SWITCH Large Basic Switches, B2 and WA Series, DT Series
- Accepted world-wide standard “Large” switch
- Long service life and differential travel
- Long mechanical life up to 200,000,000 cycles at 95% survival
- Elongated mounting hole provides more accurate mounting
- Current rating ranges from 15 A to 25 A
- Choice of actuation, terminalizing and operating characteristics
- Two independent single-pole double throw circuits in one housing and one actuator (DT)

MICRO SWITCH V-Basic Miniature Switches, V19 Series
- Best suited for lower cost-of-failure applications
- Actuated from 10 k to 50 k from various devices that a fail at a load 5 to 10 for mechanical life
- World-wide package size acceptance
- Current ratings of 10 A and 20 A
- UL/CSA, UL, ENEC, and CQC approvals
- 1 M mechanical operations

MICRO SWITCH Explosion-Proof Basic Switches, VS15W2 Series
- Approved for use in Zone 2 hazardous locations
- IP67 equivalent
- UL/CSA, ENEC, CQC (IEC Ex approvals)
- 5 A electrical ratings for design flexibility in one industry standard package

MICRO SWITCH Subminiature Switches, SM/SX Series
- Best suited for high cost-of-failure applications
- Small, lightweight, extended operating life
- Elongated mounting holes for easy accurate mounting
- Choice of actuation, electrical terminalization, and gold contact options for low energy switching and reliability
- UL/CSA, CE, ENEC approvals

MICRO SWITCH Subminiature Switches, ZM/ZW/ZX Series
- Best suited for lower cost-of-failure applications
- Small size
- Elongated mounting hole for easy accurate mounting
- Choice of low energy or power-duty electrical ratings (gold-plated or silver contacts)
- Choice of ratings, actuation, terminalization and operating characteristics
- UL/CSA, CUL, UL, ENEC, and CE approvals

TOGGLE SWITCHES

MICRO SWITCH Toggle Switches, NT Series
- IS:12.12.01 certified, designed for use near flammable hydrocarbon refrigerants
- Quick-connect spade terminations
- UL191 electrical rating
- Sealed IP65, 3, 4, 5, 13, and 13P
- Operating temperature range of -40 °C to 71 °C (-40 to 167 °F)

PRESSURE SENSORS

High and Economy Pressure Switches, HP/HE/ME/LP/LX Series
- High, medium, and low pressure switches
- Life cycle ratings of 2 million, IP67, and IP69K
- Set point factory set or field adjustable, 0.24 bar to 310.26 bar (3.5 psi to 4500 psi)
- Very large variety of pressure ports, electrical terminations, and compatibility with many media
- Premium and Economy Pressure Switches, HP/HE/ME/LP/LX Series