

CONTROLS MONITORS & PRESSURE SWITCHES

Product Range Guide



Honeywell

FOR INNOVATION THAT'S WELL APART, THERE'S ONLY HONEYWELL.

With more than 50,000 products ranging from snap-action, limit, toggle, and pressure switches to position, speed, pressure, and airflow sensors, Honeywell has one of the broadest sensing and switching portfolios.

Honeywell sensor, switch, and control components are tailored to exact specifications for stronger performance, longer productivity, and increased safety. Enhanced accuracy and durability are built into every part, improving output and endurance. For our customers, this can reduce expenditures and operational costs. Our global footprint and channels help to competitively price such components for your chosen application and provide immediate technical support.

While Honeywell's switch and sensor solutions are suitable for a wide array of basic and complex applications, our custom-engineered solutions offer enhanced precision, repeatability, and ruggedness. We offer domain knowledge and technology resources, along with a close working relationship, to develop and deliver cost-effective, individually tailored solutions. Whether clean-slate development or simple modifications to an existing design are needed, our expertly engineered solutions help to meet the most stringent requirements with world-class product designs, technology integration, and customer-specific manufacturing.

Global service, sourcing, and manufacturing. Industry-leading engineers. Value-added assemblies and solutions. A one-stop, full-service, globally competitive supplier.

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KEY & ROTARY SWITCHES

Often used on control panels or machinery in harsh environments, Honeywell key and rotary switches use o-rings to help keep dirt and moisture out of the contact chamber and prolong the switch's life.



KEY SERIES	INTEGRAL CONNECTOR	SCREW TERMINAL
Connector	Metripack 280 and Sumitomo	screw
Electrical ratings (res.)	12 Vdc, 20 A; 24 Vdc, 8 A	12 Vdc, 20 A; 24 Vdc, 10 A; 48 Vdc, 4 A
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]
Cycle life at electrical load	25000 cycles	25000 cycles
Position	2 position (off-on); 3 position (off-on-start); 3 position (off-on-start), magnetoground; 4 position (off-on-preheat-start)	2 position (off-on); 3 position (off-on-start); 3 position (on-off-on)
Mounting	panel	panel
Approvals	UL available	UL available
Measurements	Ø 1.62 in x 2.95 in L	Ø 1.62 in x 2.85 in L
Features	can be designed to match existing keys; options for up to 300 unique key codes per part number; environmentally sealed; recoil spring allows momentary positions	can be designed to match existing keys; options for up to 300 unique key codes; environmentally sealed; recoil spring allows momentary positions; sliding precious metal contacts



ROTARY SERIES	INTEGRAL CONNECTOR
Connector	Metripack 280 and Sumitomo
Electrical ratings (res.)	12 Vdc, 20 A; 24 Vdc, 8 A
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Cycle life at electrical load	25000 cycles
Position	3 position (on-off-on); 3 position (off-on-start); 3 position (off-on-on); 4 position (off-on-acc-start); 4 position (off-ignition-ignition heat-start)
Actuator	lever or knob
Mounting	panel
Approvals	UL available
Measurements	Ø 1.62 in x 2.95 in L
Features	environmentally sealed; recoil spring allows momentary positions

SHIFTERS & TURN SIGNALS

Crafted for enhanced off-highway application performance, precision, direction, and speed control. Sealed and built to withstand rugged conditions and harsh environments. Often used in agricultural equipment, construction and material handling equipment, on-highway and military vehicles, motor coaches, and ground support.



SERIES	SHIFTER	TURN SIGNAL
Mounting	left, right	–
Column size	38 mm, 45 mm, 55 mm	38 mm, 45 mm, 55 mm
Neutral lock	none, drop-down	–
Speeds	2, 3, 4, and 6	–
Lights	–	turn signal, head lamp switch/dimmer, flash to pass, hazard warning
Wiper speeds	–	1 speed, hi/lo, intermittent
Buttons	horn, wash, drop-down	wash, horn
Connectors	integral Packard, integral Deutsch, wire harness	integral Packard, integral Deutsch, wire harness
Expected life cycle	1 million (rotary); 500000 (shifter handle)	50000 cycles
Lever	3 million (with drop-down neutral lock); 1 million (without drop-down neutral lock)	–
Operating temperature range	-40 °C to 85 °C [-40 °F to 185 °F] (0 % to 95 % relative humidity)	-40 °C to 85 °C [-40 °F to 185 °F] (0 % to 95 % relative humidity)
Operating volt. range	3 V to 32 V	3 V to 32 V
Handle dead weight	160 lb [712 Newtons]	160 lb [712 Newtons]
Solenoid load	2 A @ 12.8 V with arc suppression	2 A @ 12.8 V with arc suppression
Measurements	Ø 65,02 mm x 220,47 mm L [Ø 2.56 in x 8.68 in L]	Ø 65,02 mm x 232,16 mm L [Ø 2.56 in x 9.14 in L]
Features	IP67; turn signals are built to complement the shifter, or can also be mounted as stand alone	

PUSH-PULL SWITCHES & CUSTOM CONTROLS

Robust, environmentally sealed, sliding contact switch incorporating two circuits with multiple combinations. Potential applications include control panels or machinery in harsh environments, including construction, agriculture, marine, material handling, military, machine tools, and mining.



SERIES	PUSH-PULL/E-STOP
Connector	screw, wire-out
Position	2NO circuits in push; 2NC circuits in push; 1NO/1NC circuit
Cycle life	25000 cycles (rotary)
Mounting	panel
Chamber sealing	o-ring (IP67 sealing)
Measurements	Ø 45,21 mm [Ø 1.78 in]
Temperature	-40 °C to 100 °C [-40 °F to 212 °F]
Electrical rating	12 Vdc to 14 Vdc, 20 A; 24 Vdc, 10 A
Features	UV resistant button for outdoor use; moisture, contamination, and vibration resistant; sliding contacts; momentary switch option; knob available in a variety of colors



SERIES	HANDLEBAR AND CUSTOM CONTROLS
Features	Custom controls designed for most applications requiring multi-functional electrical/electromechanical applications: throttle controls, indicator lights, custom switches, and integrated panel assemblies. Honeywell possesses switch design and packaging expertise when engineering complete, competitive, custom designs. all custom control products are designed to meet customers' specifications.

Description of controls and indicator panels

LEFT HAND CONTROL

- Compact design offers small profile control with high functionality
- Offers up to seven independent functions
- Electrical loads up to 14 A, 12 V, varies by function

Wire harness

- Length, wire colors, and connector type fully customizable

Accessory mounting features

- Located on bottom of control
- Allows for optional accessory modules such as: airflow choke (standard offering option), custom auxiliary function

Electrical circuit customizations

- Custom circuit designs allow for customer specific electrical customization while leveraging cost benefits of using platform components for the rest of a control assembly

RIGHT HAND CONTROL

- Two- or three-position switch available
- Adjustable cable travel

Wire harness

- Length, wire colors, and connector type fully customizable

Throttle cable seating

- Can be customized to fit any size or thread type

Micro switch

- Provision for optional micro switch

Electrical circuit customizations

- Custom circuit designs allow for customer specific electrical customization while leveraging cost benefits of using platform components for the rest of a control assembly

PRESSURE SWITCHES

Feature set points ranging from 3.5 psi to 3000 psi. These rugged components have enhanced repeatability of set points and wide media capability. Potential applications include transmissions, hydraulics, brakes, power steering, fuel pressure, oxygen concentrators, dental air, generators/compressors, and pool/spa water pressure.

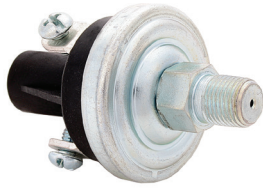


	1000 SERIES	5000 SERIES	LP SERIES	LE SERIES	MH SERIES	ME SERIES	HP SERIES
Type	hydraulic brake pressure switch	low pressure	low pressure	low pressure	medium pressure	medium pressure	high pressure
Set point range	20 psi ±10 psi [1,37 bar ±0,69 bar]	75 psi to 150 psi	3.5 psi to 150 psi	3.5 psi to 150 psi	40 psi to 500 psi	25 psi to 350 psi	100 psi to 4500 psi
Contacts	silver-plated copper	silver-plated copper	gold-plated	gold-plated	gold-plated	gold-plated	silver / gold inlay
Oper. pressure	1200 psi	150 psi, 250 psi	250 psi max.	250 psi max.	600 psi max.	500 psi max.	5000 psi max.
Proof pressure	2400 psi	500 psi	500 psi	500 psi	6000 psi	4000 psi	10,000 psi (Base A); 6,500 psi (Base B)
Burst pressure	4800 psi	4000 psi	1250 psi	1250 psi	9000 psi	8000 psi	20,000 psi (Base A); 9,000 psi (Base B)
Hysteresis option	no	no	yes	no	no	no	yes
Smart Diagnostic Technology option	no	no	yes	yes	no	yes	yes
Connector/Pressure ports	M10 x 1.25 banjo fitting (single or double); M10 x 1; 1/8-27 NPT	1/8-27 NPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, 1/8-27 PTF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, 1/8-27 PTF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, 1/8-27 PTF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, M18 x 1.5, 7/16-20 UNF, 7/8-14 UNF, 1/2-14 NPT, M10 x 1.0, G1/4 BSPP (see note 1)
Terminals	1/4 in blade	1/4 in blade, screw, Metripack	same terminations as ME, HP, and HE Series	same terminations as ME and HP Series	spade terminals, screw terminals, Amp Super Seal 1.5 - 282105-1 (3-pin connector), 10-inch cable with 18 AWG (wire out, no connector), 10-inch cable w/Metripack 280 Delphi 15300002 (2-pin connector) (18 AWG)*, 10-inch cable w/Deutsch DT04-2P-E005 (2-pin connector) (18 AWG), 3-inch cable w/Packard 2P tower connector - 12015792 (2-pin connector) (18 AWG), 2.75-inch cable w/Packard 2P shroud connector - 12010973 (2-pin connector) (18 AWG), 4-inch cable w/Packard 2P shroud connector - 12010973 (2-pin connector) (16 AWG), 5.5-inch cable w/ITT Cannon 2P Sure-Seal circular connector - SS2R-120-1804-000 (2-pin connector) (18 AWG), 4.5-inch cable w/blade terminals 6,3 mm x 0,8 mm (16 AWG)*, 10-inch cable w/ Metripack 2-pin shroud connector 153000027 (18 AWG), 6-inch cable w/Amp Super Seal 1.5 - 282104-1 (2-pin connector) (18 AWG)*, 10-inch cable w/Deutsch DT06-2S-CE06 (2-socket connector) (18 AWG), Deutsch DT04-2P-E005 (2-pin connector), 6-inch cable w/ AMP Super Seal 1.5 - 282080-1 (2-pin connector) (18 AWG), 10-inch cable w/AMP 2.5 mm system series connector 1-967402-1 (18 AWG)*, 4.5-inch cable w/Packard shroud connector 12015792 (2-pin connector) (18 AWG), 10-inch cable w/Metripack 150 Delphi 12052641 (2-pin connector) (18 AWG)	spade terminals, screw terminals, Deutsch DT04-3P-E005 (3-pin connector), Amp Super Seal 1.5 - 282105-1 (3-pin connector), 10-inch cable, 18 AWG (wire out, no connector), 10-inch cable with Deutsch DT04-3P-E005 (3-pin connector) (16 AWG), 10-inch cable with Amp Super Seal 1.5 - 282105-1 (3-pin connector) (18 AWG), 10-inch cable with Metripack 280 Delphi 15300002 (2-pin connector) (18 AWG), 10-inch cable with Din43650-C (3-pin connector) (18 AWG), 10-inch cable with M12x1 (Brad Harrison micro) - 21032121306 Harting P/N (3-pin connector) (18 AWG), 10-inch cable with Packard Weatherpack male terminal - 12020827 (3-pin connector) (18 AWG), 10-inch cable with Deutsch DT04-2P-E005 (2-pin connector) (18 AWG), 3-inch cable with Packard 2P tower connector - 12015792 (2-pin connector) (18 AWG), 2.75-inch cable with Packard 2P shroud connector - 12010973 (2-pin connector) (18 AWG), 4-inch cable with Packard 2P shroud connector - 12010973 (2-pin connector) (16 AWG), 5.5-inch cable with ITT Cannon 2P Sure-Seal circular connector - SS2R-120-1804-000 (2-pin connector) (18 AWG), 8.5-inch cable with ITT Cannon 3P Sure-Seal circular connector - SS3R-120-8551-001 (3-pin connector) (16 AWG), 10-inch cable - vacuum impregnated with Deutsch DT06-3S-EPO6 (3-socket connector) (16 AWG), 10-inch cable - vacuum impregnated with Deutsch DT04-3P-E005 (3-pin connector) (16 AWG), 4.5-inch cable with blade terminals 6,3 mm x 0,8 mm (16 AWG), 10-inch cable with Metripack 2-pin shroud connector 153000027 (18 AWG), 6-inch cable with Amp Super Seal 1.5 - 282104-1 (2-pin connector) (18 AWG), 10-inch cable with Deutsch DT06-2S-CE06 (2-socket connector) (18 AWG), Deutsch DT04-2P-E005 (2-pin connector), 10-inch cable with Metripack 150 Delphi 12129615 (3-pin connector) (18 AWG), 6-inch cable with AMP Super Seal 1.5 - 282080-1 (2-pin connector) (18 AWG), 10-inch cable with AMP 2.5 mm system series connector 1-967402-1 (18 AWG), 4.5-inch cable with Packard shroud connector 12015792 (2-pin connector) (18 AWG), 10-inch cable with Metripack 150 Delphi 12052641 (2-pin connector) (18 AWG), 8.5-inch cable with Deutsch Plug HD 16-3 96S (3-pin connector) (16 AWG)	
Approvals	-	-	CE, UKCA	CE, UKCA	-	CE, UKCA	CE, UKCA
Dimensions	Ø 18 mm hex x 54,10 mm [2.13 in] L	0.50 in hex x 60,96 mm [2.4 in] L	varies, depends upon configuration	varies, depends upon configuration	varies, depends upon configuration	varies, depends upon configuration	varies, depends upon configuration
Features	IP65; low set point; high burst rating; banjo bolt fitting	UL approvals (custom); 100,000 life cycle, 8 set-point ranges	up to 2 million life cycle rating; IP67 sealing; up to ±2 % switching point accuracy	up to 1 million life cycle rating; IP67 sealing; up to ±2 % switching point accuracy	up to 1 million life cycle rating; IP67 sealing rating; up to ±2 % switching point accuracy	up to 1 million life cycle rating; IP67 sealing rating; up to ±2 % switching point accuracy	up to 2 million life cycle rating; IP67 sealing rating; up to ±2 % switching point accuracy

*Port Style C: Switches less than 975 psi will use Base Style B; switches greater than 975 psi will use Base Style A.
 Port Styles F and G: Switches less than 350 psi will use Base Style B; switches greater than 350 psi will use Base Style A.
 Port Styles A, B, E, M, P, T, and Y will use Base Style B.
 Switches less than 150 psi will only use Base Style B.

VACUUM SWITCHES

Honeywell's 5000 Series stands up to extended-duty applications. Factory set, it features a fluorosilicone rubber diaphragm for compatibility with a wide variety of fluids. Various terminations, including a Metripack connect that forms a tight seal when connected.



SERIES	5000 VACUUM
Type	direct-action blade contact
Set point range	factory set: 1.1 in-Hg to 22 in-Hg
Vacuum	1.1 in-Hg to 22 in-Hg
Contacts	composite-gold plate
Operating pressure	30 in-Hg max.
Burst pressure	150 psi
Connector	1/8-27 NPT male thread standard (others, including metric, available)
Terminals	#8-32 screws, 1/4 in blade, Metripack 280
Dimensions	Ø 1.47 in x 2.3 in L (screw); Ø 1.47 in x 2.9 in L (Metripack 280)
Features	stands up to extended-duty applications; factory set; fluorosilicone rubber diaphragm

PRESSURE SWITCHES/ SENSORS EMEA ONLY

Range of versatile, low-cost, ultra-low pressure switches and sensors. Compact, lightweight, feature high reliability, and are designed to yield a repeatable response over millions of cycles. They can be mounted in virtually any orientation and their rugged construction allows use in the most rigorous environments.



FOR SALE IN EMEA ONLY



FOR SALE IN EMEA ONLY

SERIES	PBN1	PBN3
Type	direct action blade contact	snap-action switch
Set point range	0.018 psi to 1.8 psi	0.036 psi to 40.0 psi
Contacts	gold inlay	silver
Operating pressure	6 psi for 0.018 psi to 0.108 psi; 12 psi for 0.144 psi to 1.8 psi	12 psi for 0.036 psi to 2.71 psi; 60 psi for 3.0 psi to 40.0 psi
Proof pressure	8 psi for 0.018 psi to 0.108 psi; 15 psi for 0.144 psi to 1.8 psi	15 psi for 0.036 psi to 2.71 psi; 100 psi for 3.0 psi to 40.0 psi
Burst pressure	30 psi	60 psi for 0.036 psi to 2.71 psi; 150 psi for 3.0 psi to 40.0 psi
Connector	5 mm smooth perpendicular, 5 mm barbed radial	5 mm smooth perpendicular, 5 mm barbed radial
Terminals	4,8 mm x 0,5 mm blades	6,3 mm x 0,8 mm blades
Approvals	FOR SALE IN EMEA ONLY	FOR SALE IN EMEA ONLY
Features	sensitive to ultra-low pressures; gage, vacuum, and differential measurement	high current switching capacity; sensitive to low gage pressures

HOUR METERS

Records and tracks total elapsed time of equipment usage. All parts are in-process tested for functionality and timing accuracy before shipping. Often used in lawn and garden, generators, compressors, panel assemblies, sport/utility vehicles, on-and-off highway, transportation, mining, lifts, and recreational vehicles.



SERIES	LM
Type	ac or dc micro-controller LCD unit
Counting range	0 to 99,999.9 hours
Sealing	IP67
Voltage range	9 V to 64 V dc/ac (50 Hz to 500 Hz)
Accuracy	±200 ppm/hour
Termination	1/4 in blades; 3/16 in blades
Approvals	UL, CE, UKCA
Mount/panel cutout opening	diamond and diamond (no bezel): 24,13 mm x 44,45 mm [0.95 in H x 1.75 in W] standard: 24,13 mm x 36,83 mm [0.95 in H x 1.45 in W] round: Ø 50,8 mm [Ø 2.00 in] rectangle: 22,35 mm x 44,96 mm [0.88 in H x 1.77 in W]
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Number size	7 mm
Case material	Makroblend
Measurements	diamond: 31,75 mm x 54,10 mm x 34,29 mm [1.25 in H x 2.13 in W x 1.35 in D] standard: 27,43 mm x 40,64 mm x 34,29 mm [1.08 in H x 1.60 in W x 1.35 in D] round: Ø 57,66 mm x 33,78 mm [Ø 2.27 in x 1.33 in D] rectangle: 24,13 mm x 48,26 mm x 32,77 mm [0.95 in H x 1.90 in W x 1.29 in D] diamond (no bezel): 26,16 mm x 52,07 mm x 34,29 mm [1.03 in H x 2.05 in W x 1.35 in D]
Features	backlight and large 7 mm display; digital, microcontrol unit LCD; durable design of mounting assembly, IP67 environmental sealing

FOR MORE INFORMATION

Honeywell Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor, visit sps.honeywell.com/ast or call:

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WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective.

The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

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