



SENSING AND CONTROL

Product Range Guide

Transport your business to a better place: **leading the race.**

Honeywell Sensing and Control is committed to providing the right product for your application.

Whether you need a standard product or a highly customized solution, our sales and engineering teams have decades of experience in the Transportation industry. We understand your applications and work diligently to ensure we provide a solution that optimally meets your technical and financial needs. Our unique combination of a broad product portfolio, deep technical capabilities and extensive application experience culminates into a powerful ability to meet your design needs.

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Serving the transportation industry

Operator Controls

- Hour meter
- Indicator panel
- Interior LED lighting
- Key switch
- Push-pull switch
- Shifter
- Toggle switch
- Turn signal control

Engine Systems

- Pressure sensor
- Speed sensor
- Temperature probe
- Thermostat

Fuel Systems

- Pressure sensor
- Temperature sensor

Vehicle and Engine Testing

- Force sensor
- Pressure sensor
- Torque sensor
- Wireless data telemetry

Brake Systems

- Pressure sensor
- Speed sensing

Hydraulic Systems

- Pressure sensor
- Pressure switch
- Speed sensor
- Temperature probe

Wheels and Suspension Systems

- Limit switch
- Position sensor assemblies
- Potentiometer
- Pressure sensor
- Resolver
- Sealed switch
- Speed sensor
- Thermostat

Vehicle Position and Tilt

- Limit switch
- Position sensor
- Sealed switch
- Inertial measurement unit
- Limit switch
- Wireless solutions



Heavy Duty On and Off Road



Material Handling Equipment



Mining and Construction



Sport Vehicle



Lawn and Garden



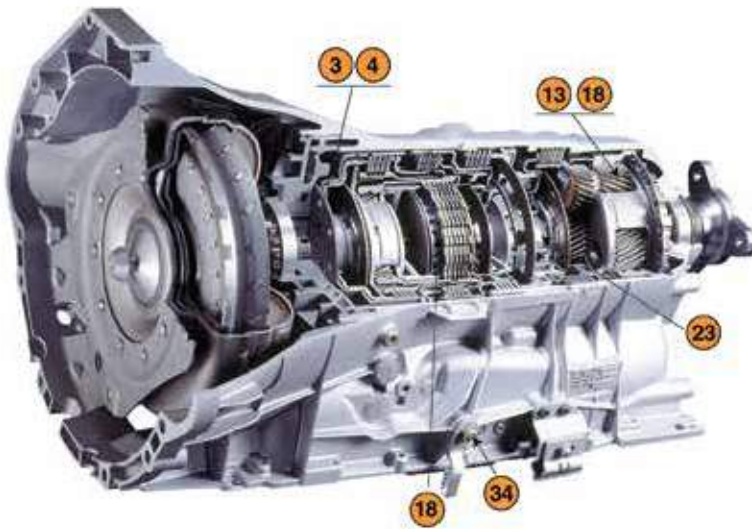
Power Generation



Rail



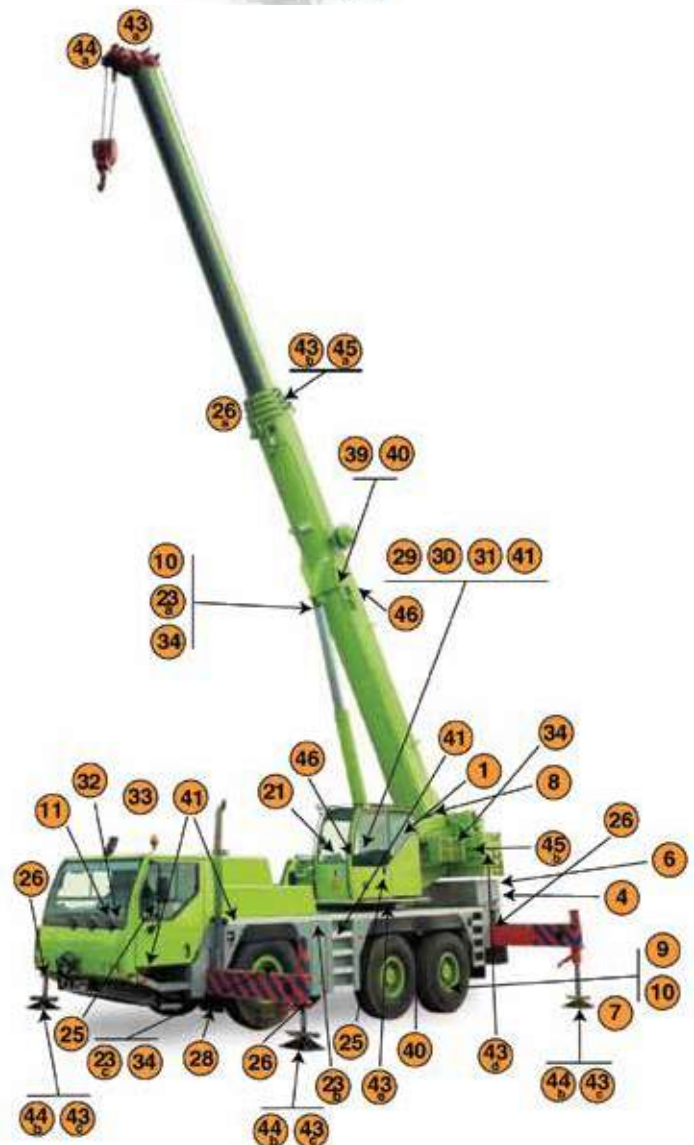
Agricultural



	Description
1	Temperature sensor (cabin pressure sensing) - ES-110 Series
2	Temperature sensor (air inlet sensing) - ES-110 Series
3	Temperature sensor (oil, coolant, and fuel temperature sensing) - ES-120 Series
4	Temperature sensor (hydraulic oil temp sensing) - R300 Series
5	Temperature sensor (exhaust gas recirculation sensing) - R300 Series
6	Thermostat (fan control and fire suppression sensing) - 3000 Series
7	Hall-effect position sensor (jack position sensing) - 103SR Series
8	Position sensor (boom angle position sensing) - SPS, RPN Series
9	Speed sensor (wheel speed sensing) - SNDH Series
10	Speed sensor (wheel and hydraulic pump speed sensing) - SNDH Series
11	Angular or linear Hall-effect position sensor IC (power steering control system sensing) - APS00B, SS490, and RPN Series
12	Hall-effect speed sensor (cam/crankshaft sensor/ABS) - SS Series
13	Speed sensor (RPM and speedometer/MPH sensing) - VRS, SNDH, and LCZ Series
14	Speed sensor (RPM/speedometer/MPH, camshaft/crankshaft, and turbocharger speed sensing) - SNDH-H Series
15	Bipolar Hall-effect sensor IC (power seat motor) - SS400 Series
16	Linear Hall-effect sensor IC (stability control system and remote mirror with memory control) - SS490 Series
17	Angular or linear Hall-effect sensor IC (power steering control system) - APS00B, SS490 Series
18	Speed/direction sensor (forward/reverse sensing) - SNDH-T Series
19	Linear Hall-effect sensor IC (throttle position sensing) - SS490 Series
20	Rotary position sensor (gear position detection/throttle by wire) - RTY Series
21	Infrared sensor (hand-grip joystick control sensing) - SMD2440, SME2470 Series
22	Liquid level sensor (fuel, oil, or break fluid sensing) - LLE Series
23	Heavy-duty pressure sensor 23a. hydraulic sensing; 23b. fuel tank level sensing; 23c. braking system sensing - PX2, MLH, 13mm, 19mm, SPT Series



	Description
24	Handlebar controls (multi-function switch) - 1080HD Series & Custom
25	Smart key (limits function by operator's certification level)
26	Heavy-duty pressure sensor or T&M pressure sensor (Outrigger load sensing - minimum of four; maximum of six) - MLH Series
27	SMART position sensor (vehicle and load sensing) 27a. SPS Linear; 27b. SPS Rotary
28	SMART position sensor (steering angle sensing) - SPS Series
29	Hour meter (usage tracking) - LM Series
30	Key switch (on/off)
31	Push-pull switch (emergency stop)
32	Shifter (forward-neutral-reverse) - 81248
33	Turn signal - multi-purpose
34	Pressure switch (hydraulic system and engine oil monitoring) - HP, HE, LP, LE Series
35	Pressure switch (brake switch indicator) - Series 1000
36	Vacuum switch (airflow monitoring) - 5000 Series
37	MICRO SWITCH™ limit switch (back-up alarm) - BZE Series
38	MICRO SWITCH™ limit switch (level sensor for cab position) - GLS Series
39	MICRO SWITCH™ limit switch (machine position) - HDLS Series
40	MICRO SWITCH™ limit switch (jib, wheelbock, and outrigger position indicator) - GLS Series
41	MICRO SWITCH™ toggle switch (manual operator switch) - NT Series
42	MICRO SWITCH™ basic switch (watertight) (brake switch indicator) - V15W Series
43	Limitless™ switches 43a. (replaces wired 2-block jib); 43b. (boom position sensing - full retraction/full extension); 43c. (outrigger position sensing: full/half extension; full retraction); 43d. (confirms mechanical locks are in place); 43e. (adjustable min./max. cab position sensing)
44	Load cell or load pins 44a. (hook load sensing); 44b. (outrigger load sensing, min. of 4/max of 6)
45	Load cell 45a. (torsion or boom side load sensing); 45b. provides counterweight information to operator)
46	Load pin (replaces hydraulic cylinder pins)





Speed and Direction Sensors

Provides true zero speed capability, direction sensing, and precise switch point measurement. Speed sensor diagnostics provide information on air gap and sensor failure for increased reliability and functionality.

A comprehensive line-up of Hall-effect, magneto-resistive, and variable reluctance sensors.

SERIES	LCZ	SNDH-T	SNDH-H
			
Description	single Hall-effect zero speed sensor	dual differential Hall-effect quadrature speed and direction sensor	Hall-effect speed sensor
Housing	stainless steel	stainless steel, plastic	stainless steel, plastic
Supply voltage range	4.5 Vdc to 26 Vdc	4.5 Vdc to 18 Vdc	4 Vdc to 24 Vdc, 4.5 Vdc to 24 Vdc, 6.5 Vdc to 24 Vdc
Supply current	20 mA	18 mA max.	6 mA max., 14 mA max., 20 mA max.
Output type	digital sinking	square wave	digital sinking
Operating frequency range	0 Hz to 15 kHz	1 Hz to 15 kHz	0 Hz to 12 kHz, 0 Hz to 15 kHz, 2 Hz to 15 kHz
Operating temperature range	-40 °C to 125 °C [-40 °F to 257 °F]	-40 °C to 150 °C [-40 °F to 302 °F]	-40 °C to 150 °C [-40 °F to 302 °F] inclusive
Measurements	9,5 mm [3/8 in/0.375 in] and 15,9 mm [5/8 in/0.625 in] diameters; 50,8 mm [2.00 in] and 76,2 mm [3.00 in] lengths	Ø 15 mm x 45 mm L [Ø 0.6 in x 1.77 in L]	various, depends upon type
Features	omni-directional sensor to target; low power consumption; zero speed; digital output	advanced performance dynamic offset self calibration; short circuit and reverse voltage protection; low jitter output; near zero speed	rotationally insensitive versions available; zero speed sensing versions available; range of connector options




SERIES	VRS Gen. Purpose	VRS High Temp.
		
Output voltage range	8 Vp-p to 40 Vp-p (inclusive)	4.7 Vp-p to 125 Vp-p (inclusive)
Housing diameter	5/8 in, 3/8 in, 1/4 in, 10/32 in	5/8 in, 3/8 in, 1/4 in
Housing material/style	stainless steel threaded or smooth	stainless steel threaded
Termination	MS3106 connector, preleaded	MS3106 connector, preleaded
Operating temperature range	-55 °C to 120 °C [-67 °F to 250 °F] (inclusive)	-73 °C to 230 °C [-100 °F to 450 °F] (inclusive)
Features	self-powered operation; simple installation; no moving parts; operates over wide speed range; customized versions available	



Position Sensors — SMART Position Sensors

Honeywell's SMART Position Sensors are some of the most durable and adaptable position devices available in the industry today. Their simple, non-contact design eliminates mechanical failure mechanisms, reduces wear and tear, improves reliability and durability and enhances operator efficiency and safety, while minimizing downtime.








SERIES	SPS Linear			SPS Arc			SPS Rotary		
									
Description	measures linear movement of a magnet attached to a moving object			measure angular movement of a magnet attached to a moving object			measures rotary movement of a magnet attached to a moving object		
Configuration	linear			arc			rotary		
Sensing range	75 mm: 0 mm to 75 mm [0 in to 3.0 in]; 225 mm: 0 mm to 225 mm [0 in to 8.86 in]			100°: 0° to 100° 180°: 0° to 180°			0° to 360°		
Resolution	75 mm analog: 0,05 mm [0.002 in]; 225 mm analog: 0,14 mm [0.0055 in]; 225 mm digital: 0,0035 mm [0.000137 in]			100°: 0.06° 180°: 0.11°			0.01°		
Supply voltage	6 Vdc to 24 Vdc			6 Vdc to 24 Vdc, 18 Vdc to 24 Vdc			12 mA to 30 mA		
Supply current	75 mm analog: 32 mA max. 225 mm analog: 34 mA max. 225 mm digital: 88 mA max.			45 mA max.			90 mA max.		
Output	75 mm and 225 mm analog: 0 Vdc to 5 Vdc 225 mm digital: RS-232 type			0.5 Vdc to 4.5 Vdc			4 mA to 20 mA		
Air gap	3,0 mm ±2,5 mm [0.118 in ±0.098 in]			100°: 7,8 mm ±2,5 mm [0.307 in ±0.098 in]; 180°: 8,5 mm ±2,5 mm [0.338 in ±0.098 in]			3,0 ±2,0 mm [0.118 ±0.079 in]		
Operating temp. range	-40 °C to 125 °C [-40 °F to 257 °F]			-40 °C to 85 °C [-40 °F to 185 °F]			-40 °C to 85 °C [-40 °F to 185 °F]		
Storage temp. range	-40 °C to 150 °C [-40 °F to 302 °F]			-40 °C to 150 °C [-40 °F to 302 °F]			-40 °C to 150 °C [-40 °F to 302 °F]		
Termination	flying leads			M12 connector (4-pin), flying leads			M12 connector (male 5-pin)		
Sealing	IP67, IP69K			IP67, IP69K			IP69K		
Housing material	thermoplastic			thermoplastic			aluminum with powder coating		
Approvals	CE			CE			CE		
Measurements	75 mm: 145 mm L x 18,0 mm W x 28,2 mm H [5.7 in x 0.71 in x 1.1 in]; 225 mm: 287,3 mm L x 18,0 mm W x 28,2 mm H [11.3 in x 0.71 in x 1.1 in]			100°: 183 mm L x 86 mm W x 31 mm H [7.20 in x 3.39 in x 1.22 in] 180°: 222 mm L x 107 mm W x 31 mm H [8.74 in x 4.21 in x 1.22 in]			113,5 mm x 106,5 mm x 22,0 mm [4.46 in x 4.19 in x 0.87 in]		
Features	analog or digital output; small size; self diagnostics; IP67 and IP69K sealing			analog output; self diagnostics; IP67 and IP69K sealing			analog output, IP67 and IP69K sealing		

Rotary Position Sensors — Non-Contact Hall-Effect Sensors & Potentiometers

Mechanical versions with 2-bit and 4-bit gray code outputs for potential use in incremental and absolute electrical reference applications. Series are available with PC terminals or cable leads. Lever option on RTY Series may reduce number of mechanical linkages required for the application.





SERIES	RTY		HRS	
				
Sensing range	50° (±25°), 60° (±30°), 70° (±35°), 90° (±45°), 120° (±60°), 180° (±90°), 270° (±135°), 360° (±180°)		90° ±2°, 180° ±2°	
Input voltage	LV: 5 Vdc ±0.5 Vdc; HV: 10 Vdc to 30 Vdc		5 Vdc ±10 %	
Output	LV & HV: 0.5 V to 4.5 V ratiometric (standard); 4.5 V to 0.5 V ratiometric (inverted)		5 % to 95 % of applied Vdd, approx. (ratiometric)	
Input current (max.)	LV: 20 mA; during output to ground short, 25 mA HV: 32 mA; during output to ground short, 47 mA		5 mA typ.	
Life	35 M cycles		10 M cycles	
Sealing	IP67		-	
Operating temp. range	-40 °C to 125 °C [-40 °F to 257 °F]		-40 °C to 85 °C [-40 °F to 185 °F]	
Measurements	55 mm L x 43 mm W x 41 mm H [2.17 in L x 1.69 in W x 1.61 in H]		32,27 mm H x 27,79 mm W [1.3 in H x 1.1 in W]	
Features	variety of supply voltages and output configurations; rugged sealed package with integral connector		90° degree rotation; maximum ESD sensitivity of ±7 kV	

SERIES	392/RV6		640		380/RV4		388	
								
Type	392: original version RV6: military version		thru-shaft		380: original version RV4: mil. vers. 380 485: cust. vers. 380 53C: cost effect. 380 385: cust. vers 53C		multiple sections available	
Rotational life	50K cycles		>1 million cycles		tested to 25K cycles		50K cycles	
Terminal type	solder hook, pc pin, custom		three 20 AWG; 152,4 mm [6.0 in] leads		solder lug, pc pin, fast-on, custom		pc, solder hook	
Element type	conductive plastic		conductive plastic		conductive plastic		conductive plastic	
Power rating	0.5 W		0.5 W		2 W		0.5 W	
Resistance range	100 Ohm to 5 MOhm (inclusive)		1 kOhm to 1 MOhm		100 Ohm to 5 MOhm (inclusive)		100 Ohm to 5 MOhm; tapered: 500 Ohm to 2 MOhm	
Bushing type	threaded metal		none		standard, high torque, custom		standard	
Electrical taper	log, reverse log, linear		linear, quadrature		log, reverse log, linear		linear, tapered	
Measurements	body: Ø 12,7 mm x 11,51 mm [Ø 0.50 in x 0.453 in]		38,1 mm W x 45,72 mm L [1.5 in W x 1.8 in L]		body: Ø 27,79 mm x 14,30 mm [Ø 1.094 in x 0.583 in]		body: 12,7 mm [0.5 in] square	

Magnetic Sensors — Hall-Effect Sensors

Consists of sensors packaged in a variety of housings. Includes vane sensors, digital position sensors, and solid-state switches. Packaged with Honeywell's first-level Hall-effect or magnetoresistive sensor ICs with additional wiring, circuitry, or connectors to provide more application functionality.





SERIES	103SR	SR16/SR17	SR3	SR4
				
Description	Hall-effect digital or linear position sensor	low-cost Hall-effect vane sensor	Hall-effect digital position sensor	magnetoresistive digital position sensor
Package material and style	aluminum threaded barrel	SR16: plastic dual tower with variety of terminations SR17: plastic side-mount wire exit	plastic threaded barrel	plastic threaded barrel
Magnetic actuation type	unipolar, bipolar, bipolar latching, linear	–	unipolar, bipolar	omnipolar
Operation	proximity to external magnet	ferrous metal actuator	proximity to external magnet	proximity to external magnet
Supply voltage range	digital: 4.5 Vdc to 24 Vdc 4.5 Vdc to 10.5 Vdc	3.8 Vdc to 30 Vdc	4.5 Vdc to 24 Vdc	3.8 Vdc to 30 Vdc
Supply current	digital: 4 mA to 10 mA (inclusive) linear: 7 mA	10 mA max.	10 mA	11 mA
Output type	digital: digital sinking linear: ratiometric sinking/sourcing	digital sinking	digital sinking	digital sinking
Operating temperature range	-40 °C to 100 °C [-40 °F to 212 °F]	-20 °C to 85 °C [-4 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]
Measurements	Ø 11,9 mm x 25,4 mm H [15/32-2 x 1.0 in H]	24,6 mm H x 12,4 mm W [0.97 in H x 0.49 in W]	Ø 12,4 mm x 25,4 mm L [Ø 0.49 in x 1.0 in L]	19,0 mm H x 25,4 mm L [0.75 in H x 1.0 in L]
Features	color-coded jacketed cable; adjustable mounting	sinking output; non-contact position sensing; environmentally sealed; three terminations	NEMA 3, 3R, 3S, 4, 4X, 12 and 13; unipolar and bipolar magnetics; sinking output; frequencies exceeding 100 Hz	NEMA 3, 3R, 3S, 4, 4X, 12 and 13; omnipolar magnetics; sinking output

Pressure and Vacuum Switches

Feature set points ranging from 0.5 psi to 4500 psi and 1.1 in-Hg to 22 in-Hg, and enhanced repeatability of set points and wide media capability. IP67 environmental sealing and high proof pressure and burst pressure ratings allow for use in many rugged applications that require the making or breaking of an electrical connection in response to a pressure change.






SERIES	HP/HE	LP/LE
		
Type	HP and HE Series: high pressure	LP and LE Series: low pressure
Set point range	150 psi to 4500 psi	3.5 psi to 150 psi
Contacts	silver / gold inlay	gold plated
Oper. pressure	5000 psi	250 psi
Proof pressure	10000 psi	500 psi
Burst pressure	20000 psi	750 psi for 3.5 to 22; 1250 psi for > 22 psi
Connector	M14 x 1.5, M18 x 1.5, 1/2-20 UNF, 9/16-18 UNF, 3/4-16 UNF, 7/8-14 UNF	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, M18 x 1.5, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT
Terminals	spade terminals, screw terminals, cable, Deutsch DT04-3P, AMP Superseal 1.5, cable with Deutsch DT04-3P, cable with Deutsch DT04-2P, cable with AMP Superseal 1.5, cable with Packard Metripak 150, cable with DIN 4365D-C, cable with M12 x 1, 150 mm cable with Packard weatherpack male terminal	
Features	IP67; up to 2 million life cycle rating; up to ± 2 % switching point accuracy; 5 mA to 5 A switching capability	

SERIES	1000	5000 Vacuum
		
Type	hydraulic brake pressure switch	direct action blade contact
Set point range	20 psi \pm 10 psi [1,37 bar \pm 0,69 bar]	factory set: 1.1 in-Hg to 22 in-Hg
Vacuum	-	1.1 in-Hg to 22 in-Hg
Contacts	silver-plated copper contacts	composite-gold plate
Oper. pressure	1200 psi	30 in-Hg max.
Proof pressure	2400 psi	-
Burst pressure	4800 psi	150 psi
Connector	M10 x 1.25 banjo fitting (single or double); M10 x 1; 1/8-27 NPT	1/8-27 NPT male thread standard (others, including metric, available)
Terminals	1/4 in blade	#8-32 screws, 1/4 in blade, MetriPak 280
Dimensions	\varnothing 18 mm hex x 54,10 mm [2.13 in] L	\varnothing 1.47 in x 2.3 in L (screw); \varnothing 1.47 in x 2.9 in L (MetriPak 280)
Features	IP65; low set point; high burst rating; banjo bolt fitting	stands up to extended-duty applications; factory set; fluorosilicone rubber diaphragm

Pressure Sensors — Board Mount and Heavy-Duty Pressure





Complete amplified and compensated pressure measurement. With a choice of ports, connectors, outputs and pressure ranges, transducers can be configured. Heavy-duty pressure sensors are engineering to be resistant to aggressive media in most harsh environments.



SERIES		40PC	MLH	PX2
				
Pressure connection	o-ring interface		1/4-18 NPT; M12 x 1.5 (ISO 6149); M14 x 1.5 (ISO 6149); 3/8-24 UNF (SAE-3 O-ring boss); M18 x 1.5 (ISO 6149); 1/8 in-27 NPT; 1/2 in-20 UNF (SAE-5 O-ring boss); M10 x 1 (ISO 6149); 1/4 in SAE female Schrader (7/16-20 UNF-2B internal thread); 7/16-20 UNF (SAE-4 O-ring boss); 1/2 in NPT; 9/16-18 UNF (SAE-6 O-ring boss); R 1/4-19 BSPT (ISO 7-1 tapered thread); G 1/4-19 (DIN 3852-2); G 1/8 with O-ring groove; M16 x 1.5 (ISO 6149); G 1/4 with O-ring groove; G 1/8 (DIN 3852-2); R 1/8-28 BSPT (ISO 7-1 tapered thread); M20 x 1.5 (ISO 6149); 1/2-20 (SAE J514)	NPT 1/4-18, NPT 1/8-27, 9/16-18 UNF SAE J1926-3, 7/16-20 UNF SAE J1926-3, 1/4 45° Flare Female Schrader, M12 X 1.5 ISO 6149-3, G1/4 ISO 1179-3, G1/8 ISO 1179-3
Measurement type	gage, bidirectional gage, vacuum gage	gage, sealed gage	absolute, sealed gage	
Construction	silicon piezoresistive technology	port: 304L stainless steel; diaphragm: Haynes 214 alloy	port and housing: 304 stainless steel; connector: PBT 30% GF	
Pressure range	1 psi to 500 psi	0 psi to 50 psi through 0 psi to 8000 psi	7 bar to 46 bar [100 psi to 667 psi]	
Output signal	Vdc	ratiometric (from 5 Vdc excitation): 0.5 Vdc to 4.5 Vdc; regulated: 1 Vdc to 6 Vdc, 0.25 Vdc to 10.25 Vdc, 0.5 Vdc to 4.5 Vdc, 1 Vdc to 5 Vdc; current: 4 mA to 20 mA	ratiometric: 5.0 V, 10 %Vs to 90 %Vs; 5.0 V, 5 %Vs to 95 %Vs; 3.3 V, 10 %Vs to 90 %Vs; 3.3 V, 5 %Vs to 95 %Vs; regulated: 1 Vdc to 6 Vdc, 0.25 Vdc to 10.25 Vdc, 0.5 Vdc to 4.5 Vdc, 1 Vdc to 5 Vdc; current: 4 mA to 20 mA	
Accuracy	linearity & hysteresis: 0.25 % typ.	±0.25 %FSS (±0.5 %FSS on ranges below 100 psi)	±0.25 %FSS	
Total error band	–	±2 %FSS to ±15 %FSS, depending on temp range and termination type	±2 %FSS at -40 °C to 125 °C [-40 °F to 257 °F]	
Amplified	yes	yes	yes	
Compensated temperature range	-45 °C to 85 °C [-49 °F to 185 °F]	ratiometric output: -40 °C to 125 °C [-40 °F to 257 °F] regulated and 4 mA to 20 mA outputs: -40 °C to 125 °C [-40 °F to 257 °F]	-40 °C to 125 °C [-40 °F to 257 °F]	
Termination	DIP	Delphi Metripak 150; Hirschmann (mates with G4W1F); M12 x 1 (Brad Harrison micro); DIN 43650-C, 8 mm-male; Amp Superseal 1.5; cable (1 m); cable (3 m); flying leads (20 AWG – 6 in); Deutsch DTM04-3P (integral)	Packard Metripak 150, Micro M12 IEC 61076-2, DIN EN 175301-803C, Deutsch DTM04-3P, cable harness (1, 2, 3, 5 meter)	
Measurements (H x W x D)	19,81 mm x 11,18 mm x 30,99 mm [0.78 in x 0.44 in x 1.22 in]	27,0 mm x 27,0 mm x 55 mm [1.06 in x 1.06 in x 2.18 in]	66 mm x 21,5 mm dia. [2.60 in x 0.84 in dia.]	
Approvals	meets MIL-STD-202 Method 213	UL component recognition for USA/ Canada: file no. E258956	IP65 or IP69K, depending on connector	

Temperature Sensors — Packaged Temperature Probes

Compact, lightweight. Operate with enhanced sensitivity, reliability, and stability under diverse conditions of shock, vibration, humidity, and corrosion. Variety of custom packages available for air, liquid, and solid temperature sensing applications.

SERIES				
	R300	500	ES110	ES120
				
Temp. sensing type	immersion	air/gas, immersion, surface, and liquid level	air/gas	immersion
Thermistor type	RTD	NTC	NTC	NTC or KTY
Nominal resistance at 25 °C [77 °F]	100 Ohm	200 Ohm to 1,000,000 Ohm (inclusive)	2000 Ohm	2000 Ohm
Operating temperature range	-40 °C to 275 °C [-40 °F to 572 °F] continuous, excursion to 300 °C [572 °F] for 10 minutes max.	-40 °C to 300 °C [-40 °F to 572 °F] (inclusive)	-40 °C to 150 °C [-40 °F to 302 °F]	-40 °C to 150 °C [-40 °F to 302 °F]
Housing material	stainless steel	plastic, aluminum, stainless steel, epoxy filled, tin- or nickel-plated copper, ceramic or kynar-filled tubing	brass	brass
Electrical and mechanical interface	overmolded connector with M14 x 1.50 thread	wide variety of connectors, lead types, materials, and insulation	overmolded connector with M10 x 1.25 or M12 x 1.50 thread	overmolded connector with M10 x 1.25, M10 x 1.0, M12 x 1.5, M14 x 1.50 thread, or 1/8 PTF
Features	enhanced response, reliability, and accuracy; stainless steel construction	wide selection of housing, resistance, and termination options	exposed thermistor; rugged design; brass encapsulation	enclosed thermistor; rugged design; brass encapsulation

