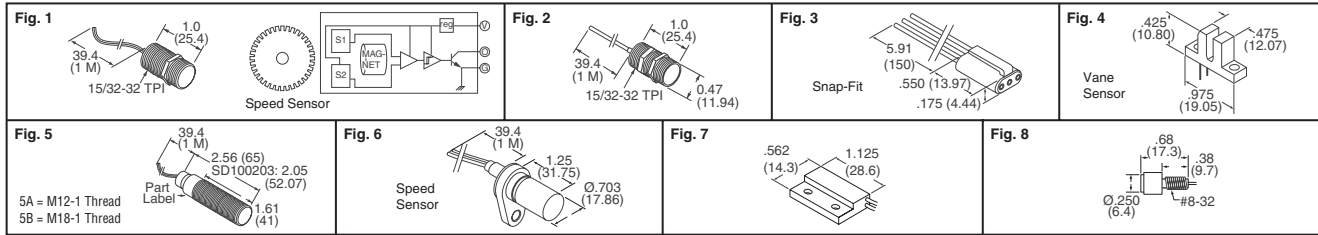


# CHERRY Solid State Magnetic Hall Effect Sensors



Cherry magnetic sensors are used to detect changes in magnetic field polarities and the motion of ferrous metals such as gear tooth movements. Used for such applications as speed and proximity sensing, magnetic polarity detection and current flow monitoring. Solid state design for unlimited life.

**Features:**

- MP100 Series:**
  - Aluminum threaded barrel sensor for speed and position sensing
  - The threaded barrel allows precise positioning and adjustment
- GS100 Series:**
  - Barrel sensors intended for gear tooth speed sensing
  - High speed capability, ideal for sensing power gears, conveyor speed and other rotating gears
  - Built-in magnet supplies its own bias field
  - GS101202 is plastic housing with steel bushing

Fig.	Supply Voltage	Output Current	Terminal Type	Polarity	Digi-Key Part No.	Price Each	Cherry Part No.
						1 10 50 100	
1	4.5-24VDC	25mA	20AWG Wires	Gear Teeth	CH398-ND†	22.62 20.11 16.76 15.50	GS100701
2	4.75-24VDC	25mA	20AWG Wires	South Pole	CH396-ND†	18.29 16.26 13.55 12.54	MP100701
3	4.75-24VDC	25mA	24AWG Wires	South Pole	CH399-ND	4.54 4.05 3.37 3.12	MP101301
4	4.5-24VDC	25mA	PC Mount 24AWG Wires	Ferrous Vane	CH401-ND◆ CH712-ND◆	5.00 4.45 3.71 3.43 5.47 4.87 4.06 3.75	VN101501 VN101503
5A	4.5-24VDC	25mA	20AWG Wires 22AWG Wires	Gear Teeth	CH416-ND† CH414-ND*	22.62 20.11 16.76 15.50 40.38 35.90 29.92 27.67	GS100502 GS100102
5A	4.75-24VDC	25mA	20AWG Wires	South Pole	CH708-ND†	18.29 16.26 13.55 12.54	MP100502
5B	4.5-24VDC	25mA	12mm Conn. 22AWG Wires	Gear Teeth	CH705-ND* CH415-ND* CH706-ND*	44.02 39.14 32.62 30.17 41.56 36.94 30.79 28.48 38.42 34.16 28.46 26.33	GS100201 GS100202 GS100203
6	5-24VDC	25mA	20AWG Wires	Gear Teeth	CH417-ND	— — — 12.53	GS101202
7	4.5-24VDC	25mA	24AWG Wires	North Pole	CH400-ND◆	5.37 4.78 3.98 3.69	MP102103
8	Threaded Actuator, South pole magnet, Aluminum Housed				CH700-ND◆	3.84 3.42 2.85 2.64	AS101001

\* Industrial Grade-Stainless Steel † Commercial Grade Aluminum ◆ RoHS Compliant



## Rugged Stainless Steel Pressure Transducers Featuring Microfused Technology

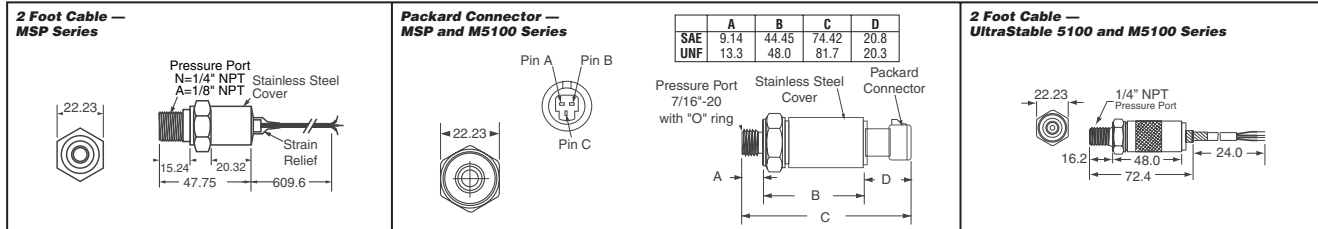
**MSP Series:**

The MSP pressure transducer is designed for high-volume, low-cost commercial, industrial and off road applications which require accurate measurement of gases or liquids. Operating ranges up to 10,000 psi is available with your choice of output signal in volts, millivolts, or milliamps. The MSP uses a micro machined silicon strain gauge inorganically bonded to a machined stainless steel diaphragm; no welds, no O-rings, no silicone oil. All wetted surfaces are stainless steel and all signal conditioning electronics

are housed in a stainless steel cover which provides protection from hostile environments. The housing is sealed and requires no maintenance. Each transducer is thoroughly tested and calibrated before shipment.

**Applications:**

- Pumps and Compressors
- Hydraulic / Pneumatic Systems
- Energy and Water Management
- Pressure Instrumentation
- Process Control, Off Road Refrigeration, HVAC.



	MSP-100	MSP-300	MSP-340	MSP-400	MSP-600	MSP-610	U5100	M5100
Pressure Range (PSIG)	0-100 - 500	0-100 - 10,000	0-100 - 1,000	1,000 - 5,000	0-25 - 5,000	0-100 - 500	0-15 - 500	0-25 - 10,000
Accuracy (combined linearity, hysteresis and repeatability)	±0.20% of FS	±1% of FS	±1% of FS	±0.50% of FS	±0.25% BSL	±0.25% of FS	±1% of FS	±0.25% of FS
Pressure Overload	1.5X	2X	2X	2X	2X	2X	3X	2X
Burst Pressure	3X		5x or 20,000 PSI whichever is less			4X	4X	5X
Outputs VDC or mA	0-100mV	0-100mV, 1-5V, 0.5-4.5V, 4-20mA	0-100mV, 0.5-4.5V	1-5V, 4-20mA	0.5-4.5V, 1-5V, 4-20mA	0.5-4.5V, 1-5V, 4-20mA	0.5-4.5V, 1-5V, 4-20mA	0.5-4.5V, 1-5V, 4-20mA
Zero Offset (millivolt output) (amplified output)	±2% of FS ±2% of FS	±3% of FS ±2% of FS	±3% of FS ±2% of FS	±2% of FS	—	—	—	—
Span Tolerance	±2% of FS	±2% of FS	±2% of FS	±2% of FS	—	—	—	—
Long-Term Stability, Typical (1 year)	±0.25%	±0.25%	±0.25%	±0.25%	±0.25%	±0.25%	±0.1%	±0.25%
Operating Temperature (°C)	0 - 55	-20 - 85	-20 - 85	-40 - 85	-40 - 125	-40 - 125	-40 - 125	-40 - 125
Compensated Range (°C)	0 - 55	0 - 55	0 - 55	0 - 70	-20 - 85	—	-20 - 85	-20 - 85
Thermo Zero Shift	<±2% of FS	<±2% of FS	<±2% of FS	<±1.5% of FS	—	—	—	—
Thermo Span Shift	<±2% of FS	<±2% of FS	<±2% of FS	<±1.5% of FS	—	—	—	—
Total Error Band	N/A	N/A	N/A	N/A	1.5% of FS	1.0% of FS	±0.75% of FS	1.0% of FS
EMI/RFI Protection, CE Mark	No	No	No	Yes	Yes	—	—	—
UL Listed	No	Yes	No	Yes	Yes	—	—	—

Operating Pressure Range PSIG	Voltage Supply (VDC)	Digi-Key Part No.	Price Each		Measurement Specialties Part No.
			1	10	
<b>MSP-100 Series</b>					
<b>Calibrated 100mV Output — O-Ring Seal, 2 Foot Cable — RoHS Compliant</b>					
100	5	MSP6900-ND	47.69	39.96	MS121-00000U-100PG
250		MSP6901-ND	47.69	39.96	MS121-00000U-250PG
500		MSP6902-ND	47.69	39.96	MS121-00000U-500PG
<b>MSP-300 Series</b>					
<b>0mV - 100mV Output — 4 Wire Unamplified 1/4" NPT, 2 Foot Cable</b>					
100	5	MSP3101P1-ND◆	58.76	49.24	2000130
250		MSP3251P1-ND◆	58.76	49.24	2000199

Operating Pressure Range PSIG	Voltage Supply (VDC)	Digi-Key Part No.	Price Each		Measurement Specialties Part No.
			1	10	
500	5	MSP3501P1-ND◆	58.76	49.24	2000255
1000		MSP3102P1-ND	58.76	49.24	2000045
2500		MSP3252P1-ND◆	58.76	49.24	2000222
5000		MSP3502P1-ND◆	58.76	49.24	2000096
10000		MSP3103P1-ND	58.76	49.24	2000157
<b>0.5V - 4.5V Output — Ratiometric Output Voltage to Input Voltage 3 Wire Supply Current 10mA Maximum 1/4" NPT, 2 Foot Cable</b>					
100	5	MSP3101P2-ND◆	75.55	63.30	2000131
250		MSP3251P2-ND◆	75.55	63.30	2000202

◆ RoHS Compliant

(Continued)

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## Rugged Stainless Steel Pressure Transducers Featuring Microfused Technology (Cont.)

Operating Pressure Range PSIG	Voltage Supply (VDC)	Digi-Key Part No.	Price Each		Measurement Specialties Part No.
			1	10	
500	5	MSP3501P2-ND	75.55	63.30	2000260
1000		MSP3102P2-ND	75.55	63.30	2000046
2500		MSP3252P2-ND	75.55	63.30	2000223
5000		MSP3502P2-ND	75.55	63.30	2000099
10000		MSP3103P2-ND	75.55	63.30	2000158
<b>1V - 5V Output - Fixed 3 Wire Supply Current 10mA Maximum 1/4" NPT, 2 Foot Cable</b>					
100	10 - 32	MSP3101P3-ND	79.75	66.82	2000133
250		MSP3251P3-ND	79.75	66.82	2000204
500		MSP3501P3-ND	79.75	66.82	2000262
1000		MSP3102P3-ND	79.75	66.82	2000048
2500		MSP3252P3-ND	79.75	66.82	2000226
5000	10 - 32	MSP3502P3-ND	79.75	66.82	2000100
10000		MSP3103P3-ND	79.75	66.82	2000159
<b>1V - 5V - Output 1/8" NPT, 2 Foot Cable - RoHS Compliant</b>					
100	10 - 32	MSP3101P4A1-ND	79.75	66.82	2000132
250		MSP3251P4A1-ND	79.75	66.82	2000203
500		MSP3501P4A1-ND	79.75	66.82	2000261
1000		MSP3102P4A1-ND	79.75	66.82	2000047
<b>4mA - 20mA Output - 2 Wire Regulated Supply 1/4" NPT, 2 Foot Cable</b>					
100	10 - 32	MSP3101P4-ND	79.41	68.07	2000137
250		MSP3251P4-ND	79.41	68.07	2000207
500		MSP3501P4-ND	79.41	68.07	2000264
1000		MSP3102P4-ND	79.41	68.07	2000050
2500		MSP3252P4-ND	79.41	68.07	2000227
5000	10 - 32	MSP3502P4-ND	79.41	68.07	2000101
10000		MSP3103P4-ND	79.41	68.07	2000160
<b>4mA - 20mA Output - 1/8" NPT, 2 Foot Cable</b>					
100	10 - 32	MSP3101P5A1-ND	79.41	68.07	2000136
250		MSP3251P5A1-ND	79.41	68.07	2000206
500		MSP3501P5A1-ND	79.41	68.07	2000263
1000		MSP3102P5A1-ND	79.41	68.07	2000049
<b>MSP-340 Series - RoHS Compliant</b>					
<b>100mV Output - 1/8" NPT, 2 Foot Cable</b>					
100	5	MSP6892-ND	69.81	58.50	M3421-000006-100PG
300		MSP6893-ND	69.81	58.50	M3421-000006-300PG
500		MSP6894-ND	69.81	58.50	M3421-000006-500PG
1000		MSP6895-ND	69.81	58.50	M3421-000006-01KPG
<b>0.5V - 4.5V Output - 1/8" NPT, 2 Foot Cable</b>					
100	5	MSP6896-ND	81.60	68.37	M3431-000006-100PG
300		MSP6897-ND	81.60	68.37	M3431-000006-300PG
500		MSP6898-ND	81.60	68.37	M3431-000006-500PG
1000		MSP6899-ND	81.60	68.37	M3431-000006-01KPG
<b>MSP-400 Series - RoHS Compliant</b>					
<b>1V - 5V Output - Fixed 3 Wire Supply Current 10mA maximum 1/4" NPT, 2 Foot Cable</b>					
5000	10 - 32	MSP4502P3-ND	68.61	58.81	2000455
<b>4mA - 20mA Output - 2 Wire Regulated Supply 1/4" NPT, 2 Foot Cable</b>					
1000	10 - 32	MSP4102P4-ND	78.77	67.52	2000417
5000		MSP4502P4-ND	78.77	67.52	2000457
<b>MSP-600 Series - RoHS Compliant</b>					
<b>0.5VDC - 4.5VDC Output - 7/16" SAE, Packard Connector</b>					
25	5	MSP6025P3-4-ND	69.88	59.90	2000964
50		MSP6050P3-4-ND	69.88	59.90	2000965
75		MSP6075P3-4-ND	69.88	59.90	2000966
100		MSP6101P3-4-ND	69.88	59.90	2000967
500		MSP6501P3-4-ND	69.88	59.90	2000969
1000		MSP6102P3-4-ND	69.88	59.90	2000970
<b>1VDC - 5VDC Output - 1/4" NPT, 2 Foot Cable</b>					
75	10 - 30	MSP6075P4-1-ND	73.69	63.17	2000884
<b>4mA - 20mA Output - 1/4" NPT, 2 Foot Cable</b>					
50	10 - 30	MSP6050P5-1-ND	86.39	74.06	2000879
75		MSP6075P5-1-ND	86.39	74.06	2000885
2500		MSP6252P5-1-ND	86.39	74.06	2000915
<b>MSP-610 Series - RoHS Compliant</b>					
<b>0.5V - 4.5V Output - 1/8" NPT, 2 Foot Cable</b>					
300	5	MSP6906-ND	82.90	71.06	M6131-C00006-300PG
500		MSP6907-ND	82.90	71.06	M6131-C00006-500PG
<b>0.5V - 4.5V Output - 1/4" NPT, 2 Foot Cable</b>					
100	5	MSP6903-ND	82.90	71.06	M6131-C00005-100PG
500		MSP6905-ND	82.90	71.06	M6131-C00005-500PG
<b>1V - 5V Output - 1/4" NPT, 2 Foot Cable</b>					
300	8 - 30	MSP6909-ND	86.39	74.06	M6141-C00005-300PG
500		MSP6910-ND	86.39	74.06	M6141-C00005-500PG
<b>4mA - 20mA Output - 1/4" NPT, 2 Foot Cable</b>					
100	10 - 30	MSP6911-ND	98.47	84.40	M6181-C00005-100PG
300		MSP6912-ND	98.47	84.40	M6181-C00005-300PG
500		MSP6913-ND	98.47	84.40	M6181-C00005-500PG
<b>UltraStable 5100 Series - RoHS Compliant</b>					
<b>0.5V - 4.5V Ratiometric Output - 1/4" NPT, Absolute Pressure, 2 Foot Cable</b>					
15PSIA	4.75 - 5.25	223-1000-ND	127.05	108.90	U5131-000005-015PA
30PSIA		223-1002-ND	127.05	108.90	U5131-000005-030PA
100PSIA		223-1004-ND	127.05	108.90	U5131-000005-100PA

Operating Pressure Range PSIG	Voltage Supply (VDC)	Digi-Key Part No.	Price Each		Measurement Specialties Part No.
			1	10	
<b>4mA - 20mA Output - 1/4" NPT, Absolute Pressure, 2 Foot Cable</b>					
15PSIA	9 - 30	223-1007-ND	153.48	130.23	U5151-000005-015PA
30PSIA		223-1009-ND	153.48	130.23	U5151-000005-030PA
100PSIA		223-1011-ND	153.48	130.23	U5151-000005-100PA
<b>0.5V - 4.5V Ratiometric Output - 1/4" NPT, 2 Foot Cable</b>					
15	4.75 - 5.25	223-1001-ND	127.05	108.90	U5131-000005-015PG
30		223-1003-ND	127.05	108.90	U5131-000005-030PG
100		223-1005-ND	127.05	108.90	U5131-000005-100PG
500		223-1006-ND	127.05	108.90	U5131-000005-500PG
<b>4mA - 20mA Output - 1/4" NPT, 2 Foot Cable</b>					
15	9 - 30	223-1008-ND	153.48	130.23	U5151-000005-015PG
30		223-1010-ND	153.48	130.23	U5151-000005-030PG
100		223-1012-ND	153.48	130.23	U5151-000005-100PG
500		223-1013-ND	153.48	130.23	U5151-000005-500PG
<b>M5100 Series - RoHS Compliant</b>					
<b>0.5V - 4.5V Ratiometric Output - 1/4" NPT, 2 Foot Cable</b>					
50	4.75 - 5.25	223-1038-ND	83.37	71.47	M5131-000005-050PG
75		223-1041-ND	83.37	71.47	M5131-000005-075PG
100		223-1020-ND	83.37	71.47	M5131-000005-100PG
250		223-1026-ND	83.37	71.47	M5131-000005-250PG
500		223-1032-ND	83.38	71.48	M5131-000005-500PG
1000	4.75 - 5.25	223-1014-ND	83.37	71.47	M5131-000005-01KPG
2500		223-1029-ND	83.37	71.47	M5131-000005-2K5PG
5000		223-1017-ND	83.37	71.47	M5131-000005-05KPG
10000		223-1023-ND	83.37	71.47	M5131-000005-10KPG
<b>1V - 5V Output - 1/4" NPT, 2 Foot Cable</b>					
50	8 - 30	223-1039-ND	87.35	74.87	M5141-000005-050PG
75		223-1042-ND	87.35	74.87	M5141-000005-075PG
100		223-1021-ND	87.35	74.87	M5141-000005-100PG
250		223-1027-ND	87.35	74.87	M5141-000005-250PG
500		223-1033-ND	87.35	74.87	M5141-000005-500PG
1000	8 - 30	223-1015-ND	87.35	74.87	M5141-000005-01KPG
2500		223-1030-ND	87.35	74.87	M5141-000005-2K5PG
5000		223-1018-ND	87.35	74.87	M5141-000005-05KPG
10000		223-1024-ND	87.35	74.87	M5141-000005-10KPG
<b>4mA - 20mA Output - 1/4" NPT, 2 Foot Cable</b>					
50	9 - 30	223-1040-ND	91.32	78.28	M5151-000005-050PG
75		223-1043-ND	91.32	78.28	M5151-000005-075PG
100		223-1022-ND	91.32	78.28	M5151-000005-100PG
250		223-1028-ND	91.32	78.28	M5151-000005-250PG
500		223-1034-ND	91.32	78.28	M5151-000005-500PG
1000	9 - 30	223-1016-ND	91.32	78.28	M5151-000005-01KPG
2500		223-1031-ND	91.32	78.28	M5151-000005-2K5PG
5000		223-1019-ND	91.32	78.28	M5151-000005-05KPG
10000		223-1025-ND	91.32	78.28	M5151-000005-10KPG
<b>0.5V - 4.5V Ratiometric Output - 7/16" UNF Male, O-Ring, Packard Connector</b>					
50	4.75 - 5.25	223-1045-ND	83.37	71.47	M5134-000004-050PG
75		223-1046-ND	83.37	71.47	M5134-000004-075PG
100		223-1047-ND	83.37	71.47	M5134-000004-100PG
250		223-1048-ND	83.37	71.47	M5134-000004-250PG
500		223-1049-ND	83.37	71.47	M5134-000004-500PG
1000	4.75 - 5.25	223-1050-ND	83.37	71.47	M5134-000004-01KPG
2500		223-1051-ND	83.37	71.47	M5134-000004-2K5PG
5000		223-1052-ND	83.37	71.47	M5134-000004-05KPG
7500		223-1074-ND	83.37	71.47	M5134-000004-7K5PG
10000	223-1053-ND	83.37	71.47	M5134-000004-10KPG	
<b>1V - 5V Output - 7/16" UNF Male, O-Ring, Packard Connector</b>					
50	8 - 30	223-1055-ND	87.35	74.87	M5144-000004-050PG
75		223-1056-ND	87.35	74.87	M5144-000004-075PG
100		223-1057-ND	87.35	74.87	M5144-000004-100PG
250		223-1058-ND	87.35	74.87	M5144-000004-250PG
500		223-1059-ND	87.35	74.87	M5144-000004-500PG
1000	8 - 30	223-1060-ND	87.35	74.87	M5144-000004-01KPG
2500		223-1061-ND	87.35	74.87	M5144-000004-2K5PG
5000		223-1062-ND	87.35	74.87	M5144-000004-05KPG
7500		223-1075-ND	87.35	74.87	M5144-000004-7K5PG
10000	223-1063-ND	87.35	74.87	M5144-000004-10KPG	
<b>4mA - 20mA Output - 7/16" UNF Male, O-Ring, Packard Connector</b>					
50	9 - 30	223-1065-ND	91.32	78.28	M5154-000004-050PG
75		223-1066-ND	91.32	78.28	M5154-000004-075PG
100		223-1067-ND	91.32	78.28	M5154-000004-100PG
250		223-1068-ND	91.32	78.28	M5154-000004-250PG
500		223-1069-ND	91.32	78.28	M5154-000004-500PG
1000	9 - 30	223-1070-ND	91.32	78.28	M5154-000004-01KPG
2500		223-1071-ND	91.32	78.28	M5154-000004-2K5PG
5000		223-1072-ND	91.32	78.28	M5154-000004-05KPG
7500		223-1076-ND	91.32	78.28	M5154-000004-7K5PG
10000	223-1073-ND	91.32	78.28	M5154-000004-10KPG	

◆ RoHS Compliant



## Cable Harnesses

Pre-made Cable Harnesses from SSI Technology with the industry standard Packard™ Automotive Connector.



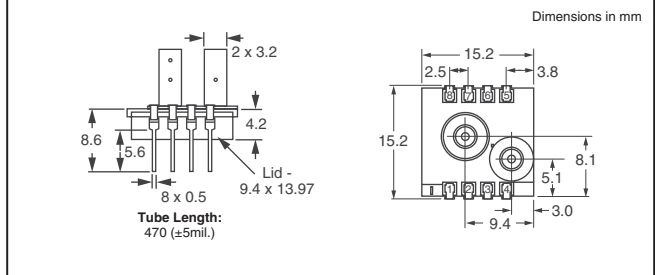
Description	Length Inch	Digi-Key Part No.	Price Each			SSI Technologies Part No.
			1	10	25	
Cable Harness Packard	12	734-1163-ND	8.47	7.57	7.10	P2432.3
Cable Harness Packard	36	734-1164-ND	15.17	14.56	13.17	P2435.3
Cable Harness Packard	72	734-1165-ND	19.19	18.47	16.87	14306.3

## PC Board Mountable Pressure Sensors Temperature Compensated

These pressure sensors are intended for cost sensitive applications where excellent performance and long-term stability are required. Integral temperature compensation is provided using laser-trimmed resistors. An additional laser-trimmed resistor is included to normalize pressure sensitivity variations by programming the gain of an external differential amplifier. This provides sensitivity interchangeability of ±1%.

**Features:** • ±0.1% Non-linearity • ±1.0% Interchangeable Span (provided by gain set resistor) • Solid State Reliability • Low Power  
**Specifications:** • **Output:** 0-100mV typical (full scale) • **Supply Current:** 1.5mA typical • **Response Time:** 1.0mSec typical (For a zero-to-full scale pressure step change) • **Operating Temperature:** -40°C - 125°C

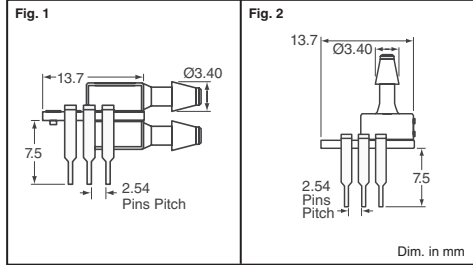
**Model 1210/1220 - Low Pressure:**  
 • 0°C - 50°C Temperature Compensation Range • 1.0% Temperature Performance  
**Model 1230/1240 - UltraStable™:**  
 • -20°C - 85°C Temperature Compensation Range • ±0.5% Temperature Performance  
**Model 1210/1220 - Medium Pressure:**  
 • 0°C - 50°C Temperature Compensation Range • 0.5 - 1% Temperature Performance



Pressure	Pressure Type	Package	Digi-Key Part No.	Price Each			Measurement Specialties Part No.
				1	10	100	
<b>Model 1210 / 1220 - Low and Medium Pressure - RoHS Compliant</b>							
0-1PSID	Differential	8-Pin Dip	MSP6940-ND	26.56	21.25	14.87	1210A-001D-3L
0-2PSID	Differential	8-Pin Dip	MSP6814-ND	26.56	21.25	14.87	1210A-002D-3L
0-5PSID	Differential	8-Pin Dip	MSP6816-ND	26.56	21.25	14.87	1220A-005D-3L
0-15PSID	Differential	8-Pin Dip	MSP6941-ND	26.56	21.25	14.87	1210A-015D-3L
0-15PSID	Differential	8-Pin Dip	MSP6943-ND	26.56	21.25	14.87	1220A-015D-3L
0-100PSID	Differential	8-Pin Dip	MSP6942-ND	26.56	21.25	14.87	1210A-100D-3L
0-100PSID	Differential	8-Pin Dip	MSP6944-ND	26.56	21.25	14.87	1220A-100D-3L
<b>Model 1230 / 1240 - UltraStable</b>							
0-15PSID	Differential	8-Pin Dip	MSP6819-ND	33.98	27.19	19.03	1240-015D-3L
0-15PSID	Differential	8-Pin Dip	MSP6945-ND	33.98	27.19	19.03	1230-015D-3L
0-30PSID	Differential	8-Pin Dip	MSP6822-ND	33.98	27.19	19.03	1230-030D-3L
0-100PSID	Differential	8-Pin Dip	MSP6828-ND	33.98	27.19	19.03	1230-100D-3L
0-100PSID	Differential	8-Pin Dip	MSP6829-ND	33.98	27.19	19.03	1240-100D-3L

◆ RoHS Compliant

## PC Board Mountable Pressure Sensors 44xx Series



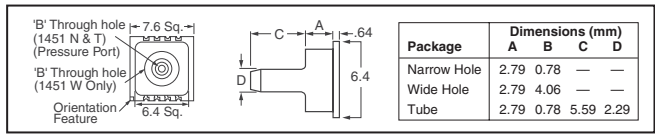
**Model 4425 and 4426**

These pressure sensors are temperature compensated, piezoresistive silicon pressure sensors packaged in a dual-in-line configuration and intended for cost sensitive applications where excellent performance and long-term stability are required. **Features:** • Dual in-line package • Solid state reliability **Specifications:** • **Output:** 0 - 100mV • **Supply voltage:** 12V (typical) • **Operating temperature range:** -25°C - 85°C

Pressure	Pressure Type	Digi-Key Part No.	Price Each			Measurement Specialties Part No.
			1	10	100	
<b>Fig. 1 - Model 4425</b>						
1PSID	Differential	223-1089-ND	24.03	21.03	16.83	4425-001D
5PSID	Differential	223-1090-ND	24.03	21.03	16.83	4425-005D
15PSID	Differential	223-1091-ND	24.03	21.03	16.83	4425-015D
15PSIA	Absolute	223-1092-ND	24.03	21.03	16.83	4425-015A
100PSID	Differential	223-1093-ND	24.03	21.03	16.83	4425-100D
<b>Fig. 2 - Model 4426</b>						
1PSIG	Gage	223-1094-ND	24.03	21.03	16.83	4426-001G
5PSIG	Gage	223-1095-ND	24.03	21.03	16.83	4426-005G
15PSIG	Gage	223-1096-ND	24.03	21.03	16.83	4426-015G
15PSIA	Absolute	223-1097-ND	24.03	21.03	16.83	4426-015A

## PC Board Mountable Pressure Sensors

**Model 1451**  
 This pressure sensor is intended for high volume applications where small size, light weight, low cost, and compatibility with automated assembly equipment are required.  
**Features:** • SMT Package • ±0.25% Pressure Non-linearity • 3 Pressure Port Options • Solid State Reliability • Low Power **Specifications:** • **Output:** 0 - 60mV • **Supply Voltage:** 3VDC • **Response Time:** 1.0mSec typical • **Operating Temperature:** -40°C - 125°C



Pressure	Pressure Type	Package	Digi-Key Part No.	Price Each			Measurement Specialties Part No.
				1	10	100	
0-5PSIG	Gage	Tube	MSP6800-ND	20.57	16.83	11.22	1451-005G-T
0-5PSIA	Absolute	Wide	MSP6801-ND	20.57	16.83	11.22	1451-005A-W
0-15PSIA	Absolute	Narrow	MSP6802-ND	20.57	16.83	11.22	1451-015A-N
0-15PSIG	Gage	Tube	MSP6803-ND	20.57	16.83	11.22	1451-015G-T
0-30PSIA	Absolute	Narrow	MSP6805-ND	20.57	16.83	11.22	1451-030A-N
0-30PSIG	Gage	Tube	MSP6806-ND	20.57	16.83	11.22	1451-030G-T
0-30PSIA	Absolute	Wide	MSP6807-ND	20.57	16.83	11.22	1451-030A-W
0-50PSIA	Absolute	Narrow	MSP6808-ND	20.57	16.83	11.22	1451-050A-N
0-50PSIG	Gage	Tube	MSP6809-ND	20.57	16.83	11.22	1451-050G-T
0-50PSIA	Absolute	Wide	MSP6810-ND	20.57	16.83	11.22	1451-050A-W
0-100PSIA	Absolute	Narrow	MSP6811-ND	20.57	16.83	11.22	1451-100A-N
0-100PSIG	Gage	Tube	MSP6812-ND	20.57	16.83	11.22	1451-100G-T
0-100PSIA	Absolute	Wide	MSP6813-ND	20.57	16.83	11.22	1451-100A-W

◆ RoHS Compliant

## UltraStable™ Stainless Steel Pressure Sensors Ribbon Cable with Connector

**Features:** • Gage Pressure type • -20°C - 85°C Compensated temperature range • ±1.0% Interchangeable Span (provided by gain set resistor) • High performance • Small profile • Solid State reliability • Low power • ±0.1% Pressure non-linearity  
**Specifications:** • **Output:** 0mV-100mV • **Supply Current:** 1.5mA typical (guarantees output/input ratio-metricity) • **Operating Temperature:** -40°C - 125°C

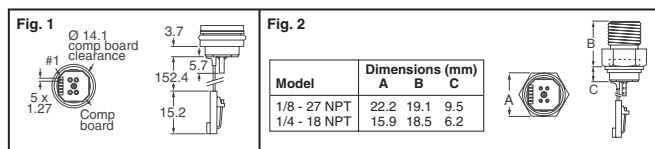


Fig.	Pressure	Output Load Res.	Digi-Key Part No.	Price Each			Measurement Specialties Part No.		
				1	10	100			
<b>Model 82, O-Ring Flush Mount - RoHS Compliant</b>									
1	0-1PSIG	5MΩ Min.	MSP6927-ND	71.12	59.59	51.90	82-001G-C		
	0-15PSIG		MSP6928-ND	55.79	46.75	40.72	82-015G-C		
	0-30PSIG		MSP6929-ND	55.79	46.75	40.72	82-030G-C		
	0-100PSIG		MSP6930-ND	55.79	46.75	40.72	82-100G-C		
	0-300PSIG		MSP6931-ND	55.79	46.75	40.72	82-300G-C		
	0-500PSIA		MSP6932-ND	55.79	46.75	40.72	82-015A-C		
2	0-30PSIA	5MΩ Min.	MSP6933-ND	55.79	46.75	40.72	82-030A-C		
	0-100PSIA		MSP6934-ND	55.79	46.75	40.72	82-100A-C		
	0-300PSIA		MSP6935-ND	55.79	46.75	40.72	82-300A-C		
	0-500PSIA		MSP6936-ND	55.79	46.75	40.72	82-500A-C		
	<b>Model 85, 1/4" - 18 NPT</b>								
	2		0-15PSIG	5MΩ Min.	MSP6853-ND	55.79	46.75	40.72	85-015G-4C
0-30PSIG		MSP6854-ND	55.79		46.75	40.72	85-030G-4C		
0-50PSIG		MSP6855-ND	55.79		46.75	40.72	85-050G-4C		
0-100PSIG		MSP6856-ND	55.79		46.75	40.72	85-100G-4C		
0-300PSIG		MSP6857-ND	55.79		46.75	40.72	85-300G-4C		
0-500PSIG		MSP6858-ND	55.79		46.75	40.72	85-500G-4C		
2	0-15PSIA	5MΩ Min.	MSP6916-ND	55.79	46.75	40.72	85-015A-4C		
	0-30PSIA		MSP6917-ND	55.79	46.75	40.72	85-030A-4C		

Fig.	Pressure	Output Load Res.	Digi-Key Part No.	Price Each			Measurement Specialties Part No.
				1	10	100	
2	0-100PSIA	5MΩ Min.	MSP6918-ND	55.79	46.75	40.72	85-100A-4C
	0-300PSIA		MSP6919-ND	55.79	46.75	40.72	85-300A-4C
	0-500PSIA		MSP6920-ND	55.79	46.75	40.72	85-500A-4C
<b>Model 86, O-Ring Flush Mount</b>							
1	0-5PSIG	1MΩ Min.	MSP6859-ND	53.43	44.77	38.99	86-005G-C
	0-15PSIG		MSP6860-ND	53.43	44.77	38.99	86-015G-C
	0-30PSIG		MSP6861-ND	53.43	44.77	38.99	86-030G-C
	0-50PSIG		MSP6862-ND	53.43	44.77	38.99	86-050G-C
	0-100PSIG		MSP6863-ND	53.43	44.77	38.99	86-100G-C
	0-300PSIG		MSP6864-ND	53.43	44.77	38.99	86-300G-C
	0-500PSIG		MSP6865-ND	53.43	44.77	38.99	86-500G-C
	0-5PSIA		MSP6921-ND	53.43	44.77	38.99	86-005A-C
	0-15PSIA		MSP6922-ND	53.43	44.77	38.99	86-015A-C
	0-100PSIA		MSP6924-ND	53.43	44.77	38.99	86-100A-C
2	0-300PSIA	5MΩ Min.	MSP6925-ND	53.43	44.77	38.99	86-300A-C
	0-500PSIA		MSP6926-ND	53.43	44.77	38.99	86-500A-C
	<b>Model 87N, 1/8" - 27 NPT - RoHS Compliant</b>						
2	0-1000PSIA	5MΩ Min.	MSP6937-ND	58.94	49.38	43.01	87N-1000A-8C
	0-3000PSIA		MSP6938-ND	58.94	49.38	43.01	87N-3000A-8C
	0-5000PSIA		MSP6939-ND	58.94	49.38	43.01	87N-5000A-8C

◆ RoHS Compliant

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## GCD-SE Series Gage Heads - Precision Spring-Loaded

Features: • CE compliance • Heavy-duty, all welded construction • Unipolar ranges: 0.1" - 2.0" • 8.5VDC - 28VDC operation • Low power consumption • May be battery operated • 0VDC - 5VDC and 1VDC - 6VDC outputs • New heavy duty front end • Hermetically sealed design

GCD-SE Series Model No.	Linear Range Inches (mm)	Digi-Key Part No.	Price Each			Measurement Part No.
			1	5	10	
GCD-SE-100	0.10 (2.54)	356-1005-ND	382.24	341.63	321.09	02351006-000
GCD-SE-250	0.25 (6.35)	356-1006-ND	431.90	385.85	362.99	02351007-000
GCD-SE-500	0.50 (12.7)	356-1007-ND	488.64	437.17	410.56	02351008-000
GCD-SE-1000	1.0 (25.4)	356-1008-ND	514.16	460.12	432.08	02351009-000
GCD-SE-2000	2.0 (50.8)	356-1009-ND	555.49	497.17	466.62	02351010-000

## AccuStar® II Clinometer

AccuStar II combines the function of two clinometers in one package. The unique dome shaped design features a capacitance based sensor which produces output signals directly proportional to the relative tilt in two axis.

Features: • Two clinometers in one package • Adaptable design DC powered • Ratiometric and PW digital output in one model • Trimmable DC output

Description	Linear Range	Operating Temp. Range	Digi-Key Part No.	Price Each			Measurement Part No.
				1	10	25	
Dual Axis Clinometer	±20°	-20°C - 75°C	356-1034-ND	91.01	86.46	81.91	02119011-000

## Rotary Variable Inductance Transducer (RVIT)

The R120LC is a DC operated noncontact rotary transducer.

Description	Full Range	Input Voltage	Output Voltage	Digi-Key Part No.	Price Each			Measurement Part No.
					1	5	20	
R120LC Transducer	±60°	4.75-5.25VDC	0.5-4.5VDC	356-1076-ND	106.89	97.98	89.08	02183000-000

## AccuStar® Electronic Clinometers

The AccuStar Electronic Clinometer is an extremely accurate angle measurement device. This compact and rugged sensor is ideal where space is critical and environmental conditions are serious design concerns.

Features: • CE certified • Just 2" in diameter • Rugged plastic housing • Extremely accurate • Weighs only 2 oz.

Description	Linear Range	Operating Temperature Range	Digi-Key Part No.	Price Each			Measurement Part No.
				1	10	25	
Single Axis Ratiometric Vertical Flange	±45°	-30°C - 65°C	356-1032-ND	110.32	101.59	92.86	02110002-000
Single Axis Ratiometric Horizontal Flange	±45°	-30°C - 65°C	356-1033-ND	110.32	101.59	92.86	02110102-000

## Ares Series Pressure Transducers

The Ares Series is a small, low cost pressure transducer, which is able to measure pressures as low as 0 - 5, 0 - 10, 0 - 15 inches of water, and 0 - 1psig.

Features: • Very low pressure ranges • Small size • PCB mountable • Solder reflow capability • Barbed pressure ports

## LM Series Pressure Sensors

The LM Series incorporates stainless steel and plastic isolation suitable for water, other fluid and gas.

Features: • Low pressure ranges • High level output • Small size • Plastic fitting

Description	Output Voltage	Standard Pressure Range	Accuracy % FSD	Digi-Key Part No.	Price Each			Measurement Part No.
					1	10	25	
<b>Ares Series</b>								
PCB Mount	0.5-4.5V	5" H <sub>2</sub> O	0.25	356-1036-ND	23.89	19.27	16.31	GA100-005WD
PCB Mount	0.5-4.5V	10" H <sub>2</sub> O	0.50	356-1037-ND	23.89	19.27	16.31	GA100-010WD
PCB Mount	0.5-4.5V	15" H <sub>2</sub> O	0.50	356-1038-ND	23.89	19.27	16.31	GA100-015WD
PCB Mount	0.5-4.5V	1PSI	0.75	356-1039-ND	23.89	19.27	16.31	GA100-001PD
PCB Mount	0.25-4.5V	5" H <sub>2</sub> O	0.25	356-1040-ND	23.89	19.27	16.31	GA200-005WD
PCB Mount	0.25-4.5V	10" H <sub>2</sub> O	0.50	356-1041-ND	23.89	19.27	16.31	GA200-010WD
PCB Mount	0.25-4.5V	15" H <sub>2</sub> O	0.50	356-1042-ND	23.89	19.27	16.31	GA200-015WD
PCB Mount	0.25-4.5V	1PSI	1.2	356-1043-ND	23.89	19.27	16.31	GA200-001PD
<b>LM Series - RoHS Compliant</b>								
1/2" NPT, Plastic Fitting	0.5-4.5V	1PSI	0.25	356-1072-ND	84.31	68.44	55.75	LM31-00000F-001PG
1/2" NPT, Plastic Fitting	0.5-4.5V	5PSI	0.25	356-1073-ND	84.31	68.44	55.75	LM31-00000F-005PG
1/2" NPT, Plastic Fitting	0.5-4.5V	30PSI	0.25	356-1074-ND	84.31	68.44	55.75	LM31-00000F-030PG

◆ RoHS Compliant

## High Stability Stainless Steel Pressure Transducer

The Ultra Stable 300/600 from Measurement Specialties, incorporates an ultra-rugged IP 67 rated housing. All wetted parts are constructed of 316 (300 Series)/316L (600 Series) stainless steel, providing media isolation and no internal "0" rings.



	U300	U600
Pressure Range (PSIG)	0-15 - 500	0-15 - 500
Accuracy (combined linearity, hysteresis & repeatability)	±0.10% of FS	±0.10% of FS
Pressure Overload	3X	3X
Burst Pressure	4x or 20,000 PSI	
Outputs VDC or mA	0.5-4.5V 4-20mA	0.5-4.5V 4-20mA
Zero Offset (amplified output)	±0.50% of FS	±0.50% of FS
Span Tolerance	±0.50% of FS	±0.50% of FS
Long-Term Stability, Typical	±0.10% of FS/Year	±0.10% of FS/Year
Operating Temperature (°F)	(-40 - 221)	(-58 - 257)
(°C)	(-40 - 105)	(-50 - 125)
Thermo Zero Shift	±0.75% of FS	—
Thermo Span Shift	±0.75% of FS	—

Series	Operating Pressure Range	Voltage Supply	Digi-Key Part No.	Price Each			Measurement Part No.
				1	10	100	
<b>0.5-4.5V Output - 1/4" NPT, 2 Foot Cable</b>							
U331	15PSIG	4.75-5.25 VDC	356-1044-ND	100.83	82.69	69.58	US331-000005-015PG
	30PSIG		356-1045-ND	100.83	82.69	69.58	US331-000005-030PG
	100PSIG		356-1046-ND	100.83	82.69	69.58	US331-000005-100PG
	500PSIG		356-1047-ND	100.83	82.69	69.58	US331-000005-500PG
U331	15PSIA	4.75-5.25 VDC	356-1048-ND	100.83	82.69	69.58	US331-000005-015PA
	30PSIA		356-1049-ND	100.83	82.69	69.58	US331-000005-030PA
	100PSIA		356-1050-ND	100.83	82.69	69.58	US331-000005-100PA

## AngleStar® Digital Protractor

The AngleStar Digital Protractor Model DP-45 provides instant digital display of level, angle and tilt.

Features: • Reads in degrees • Alternate reference (floating zero) • Display hold • High impact plastic carrying case

Description	Linear Range	Operating Temperature Range	Digi-Key Part No.	Price Each			Measurement Part No.
				1	5	20	
Digital Protractor Model DP-45	±45°	0°C - 65°C	356-1035-ND	267.79	252.19	227.93	02475-01

## DC Powered Voltage Module

The LVM-110 Module is a DC-powered LVDT signal conditioner board consisting of a carrier oscillator, AC amplifier, demodulator, filter, and DC amplifier.

Features: • DC powered • Zero and span controls • Six jumper selectable gains • Plug-in, card edge, or stand-off installation • 2.5kHz, 5kHz or 10kHz excitation

Description	Operating Range	Power Range	Digi-Key Part No.	Price Each			Measurement Part No.
				1	5	10	
LVDT Signal Conditioner Board	3.5 ± 10% Vrms	2.5kHz, 5kHz, 10kHz	356-1001-ND	113.84	106.12	99.69	04171776-000

## Dual Channel LVDT Readout/Controller

The Measurement Specialties microprocessor based LVDT indicator and set-point controller is designed for industrial and process control applications utilizing any LVDT/RVDT-based measurement device.

Features: • 1/4 DIN aluminum case • EL back-lit • LCD display • Standard 9-Pin RS-232 Connector

Description	Linear Range	Operating Temperature Range	Digi-Key Part No.	Price Each			Measurement Part No.
				1	5	10	
MP2000 Series	<±0.02%	0°C - 55°C	356-1075-ND	635.25			02291335-000

Series	Operating Pressure Range	Voltage Supply	Digi-Key Part No.	Price Each			Measurement Part No.	
				1	10	100		
<b>4-20mA Output - 1/4" NPT, 2 Foot Cable</b>								
U381	15PSIG	10-30 VDC	356-1051-ND	104.23	89.34	77.43	US381-000005-015PG	
	30PSIG		356-1052-ND	104.23	89.34	77.43	US381-000005-030PG	
	100PSIG		356-1053-ND	104.23	89.34	77.43	US381-000005-100PG	
	500PSIG		356-1054-ND	104.23	89.34	77.43	US381-000005-500PG	
	15PSIA		10-30 VDC	356-1055-ND	104.23	89.34	77.43	US381-000005-015PA
30PSIA	356-1056-ND	104.23		89.34	77.43	US381-000005-030PA		
U631	15PSIG	4.75-5.25 VDC	356-1058-ND	116.16	95.84	87.12	US631-C00005-015PG	
	30PSIG		356-1059-ND	116.16	95.84	87.12	US631-C00005-030PG	
	500PSIG		356-1061-ND	116.16	95.84	87.12	US631-C00005-500PG	
U681	15PSIA	4.75-5.25 VDC	356-1062-ND	116.16	95.84	87.12	US631-C00005-015PA	
	30PSIA		356-1063-ND	116.16	95.84	87.12	US631-C00005-030PA	
	100PSIA							
<b>4-20mA Output - 1/4" NPT, 2 Foot Cable</b>								
U681	15PSIG	10-30 VDC	356-1065-ND	148.83	125.60	111.63	US681-C00005-015PG	
	30PSIG		356-1066-ND	148.83	125.60	111.63	US681-C00005-030PG	
	100PSIG		356-1067-ND	148.83	125.60	111.63	US681-C00005-100PG	
	500PSIG		356-1068-ND	148.83	125.60	111.63	US681-C00005-500PG	
	15PSIA		10-30 VDC	356-1069-ND	148.83	125.60	111.63	US681-C00005-015PA
	30PSIA			356-1070-ND	148.83	125.60	111.63	US681-C00005-030PA
100PSIA	356-1071-ND	148.83		125.60	111.63	US681-C00005-100PA		

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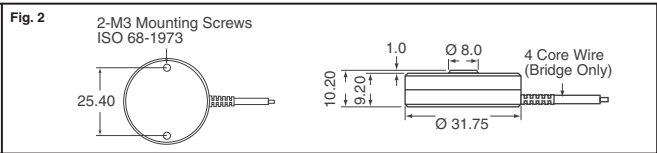
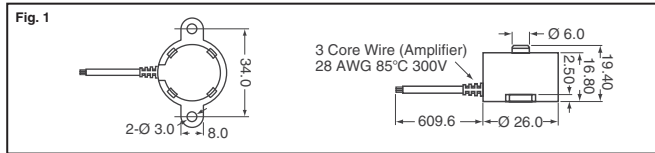
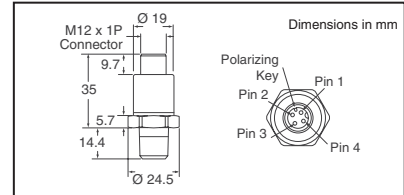


Fig.	Compression/Tension Range (Lbf)	Excitation (VDC)	Output Span Voltage @ ±5% Tolerance	Storage/Operating Temperature Range	Digi-Key Part No.	1	Price Each 10	100	Measurement Part No.
1	10	3.3 - 5.0	0.5 - 4.5 V	-40°C - 85°C	MSP6948-ND	40.37	32.52	24.96	FC2231-0000-0010-L
	25	3.3 - 5.0	0.5 - 4.5 V	-40°C - 85°C	MSP6949-ND	40.37	32.52	24.96	FC2231-0000-0025-L
	50	3.3 - 5.0	0.5 - 4.5 V	-40°C - 85°C	MSP6950-ND	40.37	32.52	24.96	FC2231-0000-0050-L
2	250	5.0	10.0 mV/V	-40°C - 85°C	MSP6952-ND	80.99	62.57	50.81	FC2311-0000-0250-L
	500	5.0	10.0 mV/V	-40°C - 85°C	MSP6953-ND	80.99	62.59	50.81	FC2311-0000-0500-L
	1000	5.0	10.0 mV/V	-40°C - 85°C	MSP6954-ND	80.99	62.57	50.81	FC2311-0000-1000-L
	2000	5.0	10.0 mV/V	-40°C - 85°C	MSP6955-ND	80.99	62.59	50.81	FC2311-0000-2000-L

## Senstronics Sensors with Temperature Output



Senstronics Storm Series is a unique product providing a lifetime of accuracy for combined pressure/temperature applications used in harsh media requiring stainless steel wetted parts. The 17-4PH stainless steel sensor design allows for a wide range of temperature and provides a rugged design that can withstand high levels of shock and vibration. **Specifications:** • 1/4 NPTF **Note:** Mating harness included with each sensor.



Operating Pressure Range (PSIG)	Operating Temp. Range	Output Voltage	Supply Voltage Range (V)	Digi-Key Part No.	Price Each	Senstronics Part No.
250	-40°C - 125°C	.5 - 4.5	8 - 30	ST00638-ND	38.33	ST00638
500	-40°C - 125°C	.5 - 4.5	8 - 30	ST00223-ND	38.33	ST00223

## HUMIREL Sensors

The relative humidity sensors by Humirel are based on capacitive cell technology using a patented solid polymer structure. They are fully interchangeable with no calibration required in standard conditions. Suitable for linear voltage or frequency output circuitry. An NTC thermistor is used for temperature measurement. The RH modules are based on the HS1101LF capacitive humidity sensor and are voltage output devices. The RH/Temperature modules include a NTC thermistor for temperature measurement and are voltage or frequency output.

**Features:** • High reliability and long term stability • Instantaneous desaturation after long periods in saturation conditions • Fast response times • Patented solid polymer structure

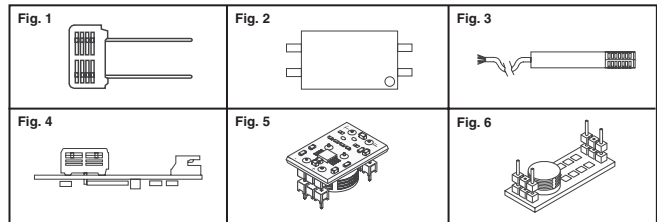


Fig.	Description	Supply Voltage (Typ.)	Nom. Cap. @ 55% RH	Response Time	Nominal Out	RH Measuring Range	Operating Temperature	Digi-Key Part No.	Price Each 1	10	100	
<b>Sensors - RoHS Compliant</b>												
1	RH Sensor Side Opening	5V	180pF	—	—	1 - 99% RH	-60°C - 140°C	HS1101LF-ND	10.48	9.29	7.86	
2	Temp./RH Sensor SMD Side Opening	5V	180pF	10 Sec.	—	1 - 99% RH	-60°C - 140°C	HTS2030SMD-ND	16.18	14.35	12.14	
<b>Modules</b>												
3	Temp./RH Module Voltage Output	5V	—	—	2.48V @ 55% RH	1 - 99% RH	-30°C - 70°C	HTM2500-ND	57.93	51.73	41.39	
4	Temp./RH Module Freq. Output JST Conn.	5V	—	10 Sec.	8750 Hz @ 55% RH	0 - 99% RH	-30°C - 80°C	HTF3226LF-ND	15.68	14.74	11.80	
5	Temp./RH Module Frequency Output Mini	5V	—	10 Sec.	6600 Hz @ 55% RH	0 - 100% RH	-40°C - 85°C	HTF3000LFPVH-ND	18.35	17.25	13.80	
6	Temp./RH Module Voltage Output Analog	5V	—	10 Sec.	2.48V @ 55% RH	0 - 100% RH	-40°C - 100°C	HTM1735LF-ND	22.23	20.90	16.72	
Demo Kit includes: 1 x HM1500, 1 x HM1510*, and 5 x HS1101									HDEMOKIT-ND	98.37	—	—

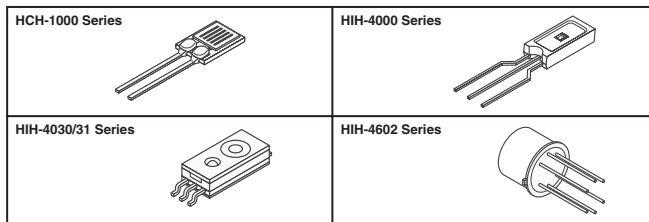
♦ RoHS Compliant \* HM1510 - HM1500 with socket at tip to accept HS1101 to test interchangeability

## Honeywell Sensing and Control Capacitive Humidity Sensors



**HCH-1000 Series** humidity sensor is a capacitive polymer sensor designed for relative humidity measurement. **Features:** • Polymer sensing offers enhanced resistance against contamination • Enhanced sensitivity and accuracy, fast response **Operating Temperature Range:** -40°C - 120°C **Operating Humidity Range:** 0% - 100% **HIH-4000 Series** humidity sensors are designed specifically for high volume OEM users. **Features:** • Molded thermoset plastic housing • Near

linear voltage output vs % RH **Operating Temperature Range:** -40°C - 85°C **Operating Humidity Range:** 0% - 100% **HIH-4600-AC Series** relative humidity sensors combine both relative humidity and temperature sensing in a TO-5 housing with a hydrophobic sintered stainless steel filter. **Features:** • Near linear voltage output vs %RH • Chemically resistant • Built-in static protection • TO-5 housing



Nom. Cap. (Typ.) @ 55% RH	Sensitivity pF/% RH Min. / Max.	Response Time Sec. (Typ.)	Digi-Key Part No.	Price Each 1	10	100	Honeywell Part No.
<b>HCH-1000 Series</b>							
330pF	0.55/0.65	15	480-2903-ND	3.50	2.44	2.00	HCH-1000-001
			480-2904-ND	3.51	2.50	2.05	HCH-1000-002

Supply Voltage (Vdc) Min. / Max.	Accuracy % RH Min. / Max.	Response Time Sec. (Typ.)	Digi-Key Part No.	Price Each 1	10	100	Tape & Reel Pricing 1,000	Honeywell Part No.
<b>HIH-4000 Series</b>								
4/5.8	-3.5/+3.5	15	480-2905-ND	12.71	10.29	8.63	—	HIH-4000-001
			480-2906-ND	14.54	11.43	9.87	—	HIH-4000-003
<b>HIH-4030 Series</b>								
4/5.8	-3.5/+3.5	5	480-3166-1-ND†	8.17	6.28	5.27	4719.00	HIH-4030-001S
			480-3167-1-ND†	8.49	6.54	5.48	4907.76	HIH-4030-003S
<b>HIH-4031 Series</b>								
4/5.8	-3.5/+3.5	5	480-3168-1-ND†	8.82	6.79	5.69	5096.52	HIH-4031-001S
			480-3169-1-ND†	9.15	7.04	5.90	5285.28	HIH-4031-003S
<b>HIH-4602 Series</b>								
4/5.8	-3.5/+3.5	50	480-3178-ND	34.11	28.43	25.59	—	HIH-4602-C

† Cut Tape ‡ For Tape & Reel part number, change 1-ND to 2-ND.

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

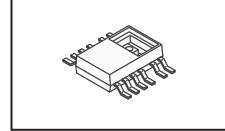
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# GE Sensing ChipCap Humidity and Temperature Sensors



Features: • Simultaneous relative humidity and temperature outputs • Precision accuracy  $\pm 2\%$  RH,  $\pm 0.6^\circ\text{C}$  • Factory selectable analog or digital outputs • Supply voltage: 3.0V – 5.5V • 14-SOP package



Output Type	Measuring Range (% RH)	Digi-Key Part No.	Price Each			GE Sensing Part No.
			1	10	100	
0 – 1 VDC Linear	0 – 100	CHIPCAP-L-ND	16.51	14.45	11.21	CHIPCAP-L
0.5 – 4.5 VDC Ratiometric		CHIPCAP-R-ND	16.51	14.45	11.21	CHIPCAP-R
Digital		CHIPCAP-D-ND	14.48	12.67	9.83	CHIPCAP-D

# TDK CHS Series Humidity Sensors



TDK's CHS Series humidity sensors are compact and extremely simple to apply. Because they contain the necessary circuitry, there is no need to provide additional control circuitry or perform time-consuming calibration. With simple connection to a power supply, they will output DC at 100% relative humidity. This makes it possible to read RH directly with a voltmeter.

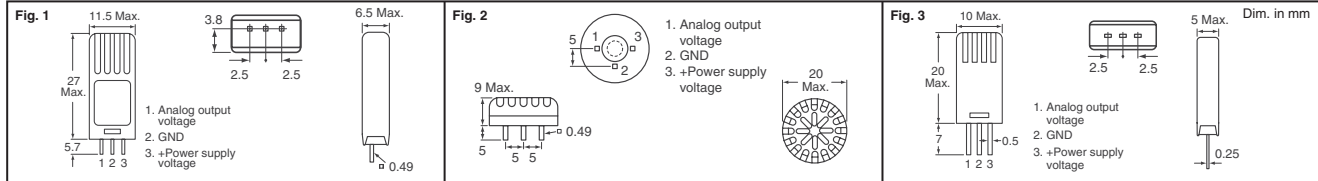


Fig.	Supply Voltage (VDC)	Measuring Range (% RH)	Nominal Accuracy RH	Digi-Key Part No.	Price Each			TDK Part No.
					1	10	100	
1	5	5 – 95	$\pm 5\%$	445-2577-ND	37.03	33.34	29.63	CHS-UGS
		5 – 95	$\pm 3\%$	445-2578-ND	54.01	46.30	40.13	CHS-UPS
2	5	5 – 95	$\pm 3\%$	445-2579-ND	54.01	46.30	40.13	CHS-UPR
		5 – 90	$\pm 5\%$	445-2575-ND	24.69	22.23	19.76	CHS-GSS
3	5	20 – 85	$\pm 5\%$	445-2576-ND	17.29	15.56	13.83	CHS-MSS

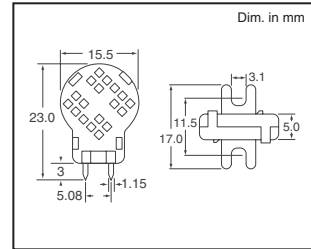
# VISHAY BCcomponents Capacitive Humidity Sensor



The capacitive atmospheric humidity sensor consists of a non-conductive foil, which is covered on both sides with a layer of gold. The dielectric constant of the foil changes as a function of the relative humidity of the ambient atmosphere, and accordingly, the capacitance value of the sensor is a measure for relative humidity.

Humidity Range (RH)	Capacitance (pF)	Sensitivity Between 12-75% RH (pF/%RH)	Frequency (kHz)	Max. AC / DC Voltage (V)	Storage Humidity Range (RH)	Ambient Temperature Range ( $^\circ\text{C}$ )		Digi-Key Part No.	Price Each			Vishay Part No.
						Operating	Storage		1	10	100	
10 – 90%	122 $\pm 15\%$	0.4 $\pm 0.05$	1 – 1000	15	0 – 100%	0 – 85	-25 – 85	BC2325-ND	14.49	13.03	10.26	2381 691 90001

\* Capacitance at 25 $^\circ\text{C}$ ; 43% RH; 100kHz

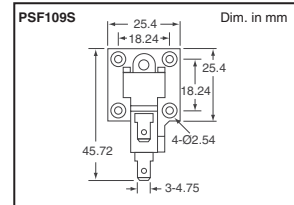


# WORLD MAGNETICS Ultra Sensitive Pressure Switches

PSF109S Series:

Vacuum switch with Hysteresis (deadband) for motor control. Field-adjustable vacuum set point. Switch-type is SPDT normally open, normally closed. For use with AMP 2-520182-2 or equivalent.

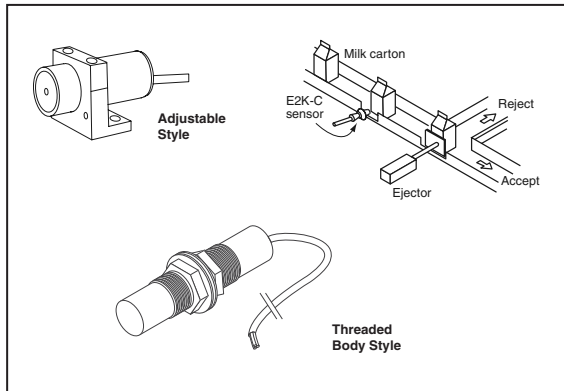
In. H <sub>2</sub> O	Tolerance	Operating Current/Voltage	Digi-Key Part No.	Price Each			World Magnetics Part No.
				1	10	100	
3 – 8	$\pm 20\%$	3A 125/250VAC	384-1020-ND	16.23	15.43	11.53	PSF109S-NPT-3-8



# OMRON Capacitive Proximity Sensors



Capacitive sensors operate similar to Inductive sensors except that a plate is used instead of a coil in the sensor's head. This plate develops a capacitive field between the sensor and ground. When an object comes within sensing distance of the sensor, the capacitive field changes which gets detected by the sensor and turns on the output. Perfect for detecting both metallic and non-metallic objects such as glass, wood, water, oils and plastics. Also works well for detecting liquids and solids in containers.



Sensing Distance	Description	Output Type	Digi-Key Part No.	Price Each	Omron Part No.
3 – 25mm	Amplified Sensor, Adjustable, NO, 10-40VDC	NPN	Z1071-ND	101.20	E2K-C25ME1
3 – 25mm	Amplified Sensor, Adjustable, NC, 10-40VDC	NPN	Z1072-ND	101.20	E2K-C25ME2
3 – 25mm	Amplified Sensor, Adjustable, NO, 90-250VAC	SCR	Z1073-ND	130.67	E2K-C25MY1
3 – 25mm	Amplified Sensor, Adjustable, NC, 90-250VAC	SCR	Z1074-ND	101.20	E2K-C25MY2
Mounting Bracket for E2K-C Sensors.....			Z1659-ND	4.17	Y92E-A34
0 – 4mm	M12, 3 Wire Sensor, THD Body, NO, 10-30VDC	PNP	Z2356-ND	81.12	E2K-X4MF1
0 – 8mm	M18, 3 Wire Sensor, THD Body, NO, 30VDC	PNP	Z2426-ND	77.30	E2K-X8MF1
0 – 15mm	M30, 3 Wire Sensor, THD Body, NO, 10-30VDC	PNP	Z2427-ND	81.92	E2K-X15MF1
0 – 4mm	M12, 3 Wire Sensor, THD Body, NO, 10-30VDC	NPN	Z2423-ND	81.12	E2K-X4ME1
0 – 8mm	M18, 3 Wire Sensor, THD Body, NO, 10-30VDC	NPN	Z2424-ND	77.30	E2K-X8ME1
0 – 15mm	M30, 3 Wire Sensor, THD Body, NO, 10-30VDC	NPN	Z2425-ND	81.92	E2K-X15ME1
0 – 8mm	M18, 2 Wire Sensor, THD Body, NO, 90-250VAC	SCR	Z2421-ND	97.98	E2K-X8MY1
0 – 15mm	M30, 2 Wire Sensor, THD Body, NO, 90-250VAC	SCR	Z2422-ND	106.02	E2K-X15MY1

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