Sensing and Control

Pressure Airflow Force

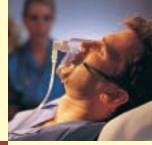














Pressure, Airflow and Force Sensing at Honeywell

Honeywell Sensing and Control:

In the 1980's, Honeywell developed a full line of piezoresistive pressure sensors featuring excellent repeatability, high accuracy, and reliability under varying environmental conditions. In addition, they feature highly consistent operating characteristics from one sensor to the next and interchangeability without recalibration.

In 1998, Honeywell acquired Data Instruments and added stainless steel and high purity pressure sensors, as well as the Advanced Silicon Group, or ASG family of pressure sensors. Data Instruments is best known for their sensors' precision and performance in applications that require high accuracy.

In 2002, Honeywell acquired Invensys Sensor Systems, including Sensym ICT, which brought a full line of high pressure, industrial products from the ICT side of the business, and a full line of low pressure plastic products from the SenSym side. SenSym is best known for their Low Pressure Plastic products and their willingness to produce custom sensors and packages. ICT is known for their highly accurate Pressure sensors that are used in Industrial applications. ICT is also known for their willingness to work with customers to create custom pressure sensor solutions to meet challenging customer needs.

In 2003, Honeywell purchased Sensotec. Founded in 1973, Sensotec designs and manufactures one of the broadest and most comprehensive product lines of pressure, load cells and electronic sensor instrumentation. Sensotec products are best known for their quality of engineering and customization.

Honeywell Sensing and Control offers the broadest line of pressure, force, and airflow capabilities in the world. For more information on these, or any of our products, visit our website and interactive catalog at www.honeywell.com/sensing.

Honeywell

1998 Data Instruments:

- 1977 Data Instruments was formed as a result of a leveraged buyout of the Tyco Instruments Division of Tyco Laboratories.
- 1994 NeXt Sensors was founded
- 1995 NeXt Sensors merged with Data Instruments and formed the Advanced Silicon Group (ASG)
- 1998 Honeywell acquires Data Instruments.

2002 SenSym ICT:

- **1**972 **ICT** was spun off from Fairchild.
- 1974 The Foxboro Company purchased ICT.
- 1989 Hawker Siddley (later acquired by BTRS) purchased SenSym from National Semiconductor
- 1990 Siebe acquired the **Foxboro** company
- 1999 BTR merged with Siebe to form Invensys.
 Sensym merged with Foxboro ICT to form
 Sensym ICT.
- 2002 Honeywell acquired SenSym ICT as a part of Invensys Sensor Systems.

You can trust Honeywell Sensing and Control for:

The right products for your applications

By offering you the broadest switching and sensing portfoilio in the world—and by offering you expert advice through our global sales and distribution channels to make the right choices, we can help to ensure you get the right product for your application.

Delivered on time

Through extensive work with Six Sigma^{*} Plus and lean manufacturing programs, Honeywell is able to boast on-time to promise delivery statistics over 95%. Many of our locations operate at 100%. With an average lead time of only five days and distributor stocking programs in place throughout the world, we can meet even the most stringent of deadlines.

That work right the first time

At Honeywell Sensing and Control, we provide you with quality right out of the box, and quality down the line. Our Six Sigma* culture ensures that our sensors, switches and control products will work the first time and every time.

And every time

With over 60 years in the switching and sensing business, we have built a reputation you can rely on. Our robust product designs and extensive testing facilities ensure that the products you order from Honeywell are the quality you have come to depend on.

Anywhere in the world

Honeywell has a global sales force with application assistance available wherever you are located. See the back page of this brochure for more information on who to contact in your part of the world.

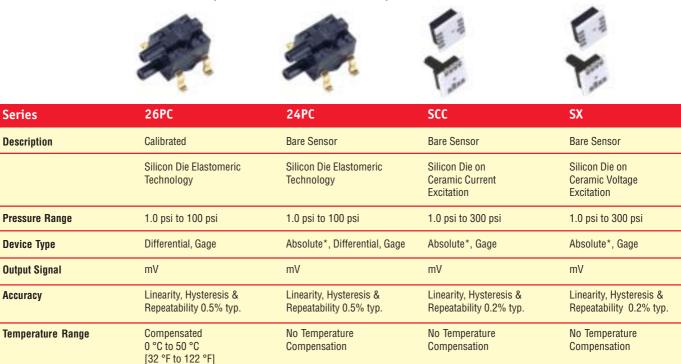
In addition to the sensing and control industry's largest direct salesforce, we have several ways of getting the answers you need:

- 1. Visit the website and interactive catalog at www.honeywell.com/sensing
- 2. Contact our Customer Response Center directly at:

Domestic: 800.537.6945 International: 815.235.6847 Fax: 815.235.6545 Our technical customer service staff is waiting to help you from 7:30am to 4:30pm, Central Standard Time.

3. Email us at info.sc@honeywell.com

SMT Pressure Products (1.0 psi to 100 psi)



*Absolute only available on 15.0 psi and above.

Ultra Low Pressure Products (<10 inches of water)



| Series | ASDXL | DC | SDXL | SCXL | DCXL | DUXL |
|-------------------|---|--|---|--|---|--|
| Description | Amplified | Amplified SureSense™ | Calibrated | Calibrated | Calibrated SureSense™ | Bare Sensor SureSense™ |
| | Silicon Die with ASIC Output | Dual Silicon Die with ASIC Output | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die only |
| Pressure Range | 0 in $\rm H_2O$ to 5.0 in $\rm H_2O$ and 10 in $\rm H_2O$ | 0 in H ₂ 0 to 1.0, 2.0, 5.0, 10.0, 20.0, and 30.0 in H ₂ 0 | 0 in H_20 to 5.0 in H_20 and 10.0 in H_20 | 0 in H_2^0 to 4.0 in H_2^0 and 10.0 in H_2^0 | 0 in H_2 0 to 10.0 in H_2 0 | 0 in H_2^0 to 4.0 in H_2^0 and 10.0 in H_2^0 |
| Device Type | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage |
| Output Signal | .5 Vdc to 4.5 Vdc | .5 Vdc to 4.5 Vdc | mV | mV | mV | mV |
| Accuracy | Total Accuracy 2.0% | Total Accuracy 2.0% | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 0.5% typ. |
| Temperature Range | Compensated 0 °C to 85 °C [32 °F to 185 °F] | Compensated -25 °C to 85 ° C [-13 °F to 185 °F] | Compensated 0 °C to 50 ° C [32 °F to 122 °F] | Compensated 0 °C to 50 ° C [32 °F to 122 °F] | Compensated 0 °C to 50 °C [32 °F to 122 °F] | Compensated -25 °C to 85 °C [-13 °F to 185 °F] |

Airflow Sensors

| | | | | | ada | | 3 |
|------------------------|---|--|--|--|--|--------------|---------------------------|
| Series | AWM1000 | AWM2000 | AWM3000 | AWM40000 | AWM5000 | AWM700 | AWM90000 |
| Signal Conditioning | Un-amplified (mV) | Un-amplified (mV) | Amplified | Amplified & Un-Amplified | Amplified | Amplified | Un-amplified (mV) |
| Technology | Silicon Die | Silicon Die | Silicon Die | Silicon Die | Silicon Die | Silicon Die | Silicon Die |
| Flow/Pressure Range | +1000 sccm to -600 sccm, +/- 4" H2O, +/-200 sccm | +/-1000 sccm, +/-4" H20, +/-200sccm, +/-30 sccm | +/-1000 sccm, +/-2" H2O, +1000 sccm, +/-30 sccm | +6 SLPM, +/-1000 sccm, +1000 sccm, +/-25 sccm | 0 to 5 SLPM, 0 to 10 SLPM, 0 to 15 SLPM, 0 to 20 SLPM | +200 SLPM | +/-200 sccm, +/-2" H2O |
| Port Style | Straight | Straight | Straight | Manifold | 1/4in - 18 NPT | 22mm Tapered | Straight |
| Media Capability | Dry Gas Only | Dry Gas Only | Dry Gas Only | Dry Gas Only | Dry Gas Only | Dry Gas Only | Dry Gas Only |

Ultra Low Pressure Products (<10 inches of water)



| CPXL | CPCL | XPCL | XCXL | SLP | 170PC | 160PC |
|---|---|---|--|---|---|--|
| Bare Sensor | Calibrated | Motorola Drop-In Calibrated | Calibrated | Bare Sensor | Calibrated | Amplified |
| Silicon Die only | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die only | Silicon Die with Thick-film Resistors | Silicon Die with Op-Amp Output |
| 0 in H_20 to 4.0 in H_20 and 10.0 in H_20 | 0 in H_20 to 4 in H_20 and 10.0 in H_20 | 0 in H_20 to 4.0 in H_20 and 10.0 in H_20 | 0 in H_2 0 to 4.0 in H_2 0 and 10.0 in H_2 0 | 0 in H_20 to 4.0 in H_20 and 10.0 in H_20 | 0 in H_2 0 to 28.0 in H_2 0 | 0 in H_2^0 to 28.0 in H_2^0 |
| Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage | Differential, Gage |
| mV | mV | mV | mV | mV | mV | 1.0 Vdc to 6.0 Vdc |
| Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.3% typ. | Linearity & Hysteresis 1.0% typ. | Accuracy 2.0% typ. |
| No Temperature Compensation | Compensated 0 °C to 70 °C [32 °F to 158 °F] | Compensated 0 °C to 70 °C [32 °F to 158 °F] | Compensated 0 °C to 50 °C [32 °F to 122 °F] | No Temperature Compensation | Compensated 0 °C to 50 °C [32 °F to 122 °F] | Compensated -18 °C to 63 °C [0 °F to 145 °F] |

Low Pressure Products (0.5 psi to 250 psi)

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Low Pressure Products (0.5 psi to 250 psi)

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|-------------------|---|--|--|---------------------------------------|---------------------------------------|---|---|---|--|--|---|
| Series | ASDX | 140PC | ХСА | 22PC | 24PC | 26PC | 136PC | СРС | СРХ | ХСХ | SCX |
| Description | Amplified | Amplified | Amplified | Bare Sensor | Bare Sensor | Calibrated | Calibrated | Calibrated | Bare Sensor | Calibrated | Calibrated |
| | Silicon Die with ASIC Output | Silicon Die with Op-Amp Output | Silicon Die with Op-Amp Output | Silicon Die Elastomeric Technology | Silicon Die Elastomeric Technology | Silicon Die Elastomeric Technology | Silicon Die/ Thick-film Technology | Silicon Die with Thick-film Resistors | Silicon Die only | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors |
| Pressure Range | 1.0 psi to 150 psi | 1.0 psi to 100 psi | 1.0 psi to 300 psi | 1.0 psi to 100 psi, | 0.5 psi to 250 psi | 1.0 psi to 250 psi | 1.0 psi to 250 psi | 1.0 psi to 300 psi | 1.0 psi to 300 psi | 1.0 psi to 300 psi | 1.0 psi to 150 psi |
| Device Type | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Differential, Gage | Absolute*, Differential, Gage | Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage |
| Output Signal | .5 Vdc to 4.5 Vdc | 1.0 Vdc to 5.0 Vdc | 1.0 Vdc to 5.0 Vdc | mV | mV | mV | mV | mV | mV | mV | mV |
| Accuracy | Total Accuracy 2.0% max. | 2.0% typ. | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5 % typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.5% typ. | Linearity & Hysteresis 0.3% typ. |
| Temperature Range | Compensated 0 °C to 85 °C [32 °F to 185 °F] | Compensated -18 °C to 63 °C [0 °F to 145 °F] | Compensated 0 °C to 50 ° C [32 °F to 122 °F] | No Temperature Compensation | No Temperature Compensation | Compensated 0 °C to 50 °C [32 °F to 122 °F] | Compensated 0 °C to 50 °C [32 °F to 122 °F] | Compensated 0 °C to 70 °C [32 °F to 158 °F] | Compensated 0 °C to 70 ° C [32 °F to 158 °F] | Compensated 0 °C to 50 ° C [32 °F to 122 °F] | Compensated 0 °C to 70 °C [32 °F to 158 °F] |

*Absolute only available on 15.0 psi and above.

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Stainless Steel Pressure Products (3 to 40K psi)

Stainless Steel Pressure Products (3 to 40K psi)

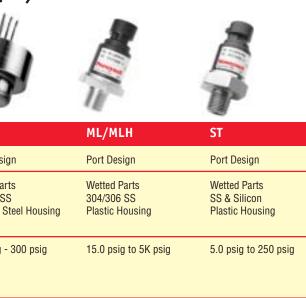
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|-----------------------|--|--|--|--|---|---|---|---|---|---|---|
| Series | AB | BL | SA | EA | мм | ХР | EC | SR | ВХ | ML/MLH | ST |
| Description | Flush Design | Flush Design | Port Design | Port Design | Port Design | Port Design | Port Design | Flush Design | Flush Design | Port Design | Port Design |
| Construction | Wetted Parts 15-5 PH/316 SS (Optional - Hastelloy, Titanium, Inconel) | Wetted Parts 15-5 PH/316 SS (Optional - Hastelloy, Titanium, Inconel) | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Plastic Housing | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Stainless Steel Housing | Wetted Parts 304/306 SS Plastic Housing | Wetted Parts SS & Silicon Plastic Housing |
| Pressure Range | 6.0 psig to 20K psig 6 psia to 50 psia | 5.0 psig to 20K psig 15 psia to 50 psia | 15.0 psig to 50.0 psig 15.0 psia to 200 psia 500 psis to 5K psis | 6.0 psig to 5K psig | 15.0 psig to 7K psig | 15.0 to 50 psig 100 psis to 5K psis | 15.0 to 50 psig 100 psis to 5K psis | 15.0 psig to 2K psig | 15.0 psig - 300 psig | 15.0 psig to 5K psig | 5.0 psig to 250 psig |
| Output Signal | 100 mV | 4 mA to 20 mA | 1 Vdc to 6 Vdc | 1 Vdc to 6 Vdc 1 kHz to 6 kHz | 50 mV | 4 mA to 20 mA | 0.5 Vdc to 4.5 Vdc 1.0 Vdc to 6.0 Vdc 4 mA to 20 mA | 25 mV/mA at Excitation of 4 mA, 5.0 Vdc | 50 mV at Excitation of 4 mA, 5 Vdc | 0.5 Vdc to 4.5 Vdc 1.0 Vdc to 6 Vdc 4 mA to 20 mA | 0.5 Vdc to 4.5 Vdc 4 mA to 20 mA |
| Accuracy | 0.25% | 1.0% | 1.0% | 1.0% | 0.50% | 1.0% | 0.25% | 1.0% | 1.0% | 0.25% Total Error Band - 2% | 1.0% Total Error Band - 2% |
| Temperature Range | Compensated -1 °C to 54 °C [30 °F to 130 °F] | Compensated -1 °C to 54 °C [30 °F to 130 °F] | Compensated -1 °C to 85 °C [30 °F to 185 °F] | Compensated -1 °C to 85 °C [30 °F to 185 °F] | Compensated -1 °C to 82 °C [30 °F to 180 °F] | Compensated -1 °C to 54 °C [30 °F to 130 °F] | Compensated -40 °C to 105 °C [-40 °F to 221 °F] | Compensated -1 °C to 71 °C [30 °F to 160 °F] | Compensated 10 °C to 54 °C [50 °F to 130 °F] | Compensated -40 °C to 105 °C [-40 °F to 221 °F] | Compensated -40 °C to 100 °C [-40 °F to 212 °F] |
| Termination/Connector | Cable | Bendix Connector | Cable/Hirschmann | Valox Connector | Hirschmann Connector Spade Pins | Cable/Hirschmann | Cable/Hirschmann DIN/Packard | Pins | Pins | Multiple Connectors | Packard Connector |











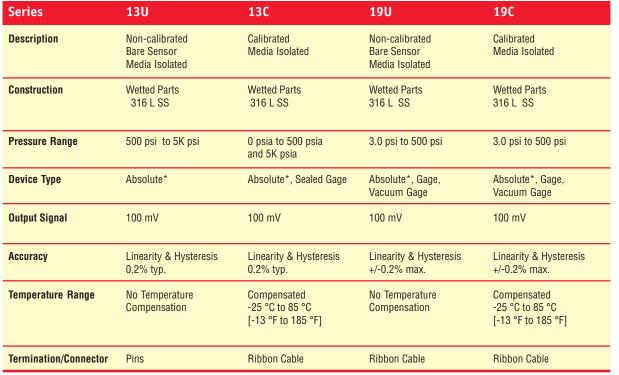
| Low Pressure Products (0.5 psi to 250 psi) | | | | | Low Pressure Products (0.5 psi to 250 psi) | | | | | | |
|--|---|---|-------------------------------------|--|--|---|--|--|--|--------------------------------------|---|
| | -> | | V | | | | é. | | LL. | - | |
| Series | SX | SCC | ХРХ | ХРС | XSC | SDX | 1800 | 40PC | 180PC | 24PC Flow through | 26PC Flow Through |
| Description | Bare Sensor | Bare Sensor | Bare Sensor | Calibrated | Calibrated | Calibrated | Calibrated | Amplified | Amplified | Bare Sensor | Calibrated |
| | Silicon Die only Constant Voltage Supply | Silicon Die only Constant Current Supply | Silicon Die only | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Silicon Die with Thick-film Resistors | Monolithic Silicon Die | Silicon Die with Op-Amp Output | Silicon Die only | Silicon Die with Thick-film Resistors |
| Pressure Range | 1.0 psi to 150 psi | 1.0 psi to 150 psi | 1.0 psi to 30 psi | 1.0 psi to 150 psi | 1.0 psi to 150 psi | 1.0 psi to 100 psi | 3.0 psi to 150 psi | +/- 1.0 psi to 500 psi | 1.0 psi to 30 psi | ± 1.0 psi, ± 30 psi | ± 1.0 psi to ± 100 psi |
| Device Type | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Absolute*, Differential, Gage | Gage | Differential, Gage | Gage | Gage |
| Output Signal | mV (Voltage Excitation) | mV (Current Excitation) | mV | mV | mV | mV | mV | 0.5 Vdc to 4.5 Vdc | 1.0 Vdc to 6.0 Vdc | mV | mV |
| Accuracy | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 0.2% typ. | Linearity & Hysteresis 1.0% typ. | Linearity & Hysteresis 1.0% typ. | Linearity & Hysteresis 1.0% typ. | Linearity & Hysteresis 0.25% max. | Linearity & Hysteresis .15% max. | Linearity & Hysteresis 0.25% typ. | 2.0% | Linearity & Hysteresis 0.75% typ. | Linearity & Hysteresis 0.35% typ. |
| Temperature Range | No Temperature Compensation | No Temperature Compensation | No Temperature Compensation | Compensated 0 °C to 70 ° C [32 °F to 158 °F] | Compensated 0 °C to 70 ° C [32 °F to 158 °F] | Compensated 0 °C to 50 °C [32 °F to 122 °F] | Compensated -1 °C to 54 °C [30 °F to 129 °F] | Compensated -45 °C to 125 ° C [-49 °F to 257 °F] | Compensated -18 °C to 63 °C [0 °F to 145 °F] | No Temperature Compensation | Compensated 0 °C to 50 °C [32 °F to 122 °F] |

*Absolute only available on 15.0 psi and above.

*Absolute only available on 15.0 psi and above.

Stainless Steel Pressure Products (3 to 40K psi)





$^{\ast}\mbox{Absolute}$ only available on 15.0 psi and above.

Stainless Steel Pressure Products (3 to 40K psi)



| Series | SPT | BE |
|-----------------------|--|--|
| Pressure Connection | 1/8-27 NPT, 1/4-18 NPT 7/16-20 UNF, 1/4-19 BSP | Multiple Port Designs |
| Construction | Wetted Parts 316 L SS Stainless Steel Housing | Wetted Parts 17-4PH Stainless Plastic Housing |
| Pressure Range | 3.0 psi to 5K psi | 125 psi to 42K psi |
| Device Type | Absolute*, Gage, Sealed Gage, Vacuum Gage | Gage |
| Output Signal | 4-20 mA, 100 mV, 1 Vdc to 5 Vdc | 0.5 Vdc to 4.5 Vdc ratiometric |
| Accuracy | 0.25% max. | 1.50% Total Error Band |
| Temperature Range | Compensated -10 °C to 85 °C [14 °F to 185 °F] | Compensated -20 °C to 85 °C [-4 °F to 185 °F] Operating -40 °C to 125 °C [-40 °F to 257 °F] |
| Termination/Connector | Cable/8 Bayonet | Multiple Electrical Terminations |

*Absolute only available on 15.0 psi and above.



| High-Pu | rity Pressu | re Transduo | cers | Automotive | | |
|---------------------------|---|---|---|---------------------------------------|--|--|
| Series | F1 | S1 | TLD | PT4 | PT1 | PTT |
| Description | Flow through VCR port | Single VCR port | Single and Flow Through VCR port | Automotive Grade Sensor | Automotive Grade Sensor | Diesel-Heating Applications |
| | SEMI specs | SEMI specs | SEMI specs Integral digital display | LIN Bus Output | ASIC Output | ASIC Output |
| Pressure Range | 25.0 psi to 3K psi | 25.0 psi to 3K psi | 25.0 psi to 3K psi | 0 Bars to 38.0 Bars | 2.0 Bars to 4.0 Bars | 4.0 Bars to 8.0 Bars |
| Device Type | Absolute*, Compound & Gage | Absolute*, Compound & Gage | Absolute*, Compound & Gage | Absolute* | Absolute* | Absolute* |
| Output Signal | 4 mA to 20 mA 0 Vdc to 5.0 Vdc | 4 mA to 20 mA 0 Vdc to 5.0 Vdc | 4 mA to 20 mA 0 Vdc to 5.0 Vdc | 12.0 Vdc Bus | 0.25 Vdc to 4.5 Vdc | +/- 2 mAmp |
| Accuracy | Linearity & Hysteresis 0.5% FSO | Linearity & Hysteresis 0.5% FSO | Linearity & Hysteresis 0.5% FSO | <1% FS/LP Range | <1% FS | +/- 100 mBars |
| Temperature Range | Compensated 0 °C to 70 °C [32 °F to 158 °F] Operating -40 °C to 85 °C [-40 °F to 185 °F] | Compensated 0 °C to 70 °C [32 °F to 158 °F] Operating -40 °C to 85 °C [-40 °F to 185 °F] | Compensated 0 °C to 70 °C [32 °F to 158 °F] Operating -40 °C to 85 °C [-40 °F to 185 °F] | -20 °C to 130 °C [-4 °F to 366 °F] | -40 °C to 135 °C [-40 °F to 275 °F] | -40 °C to 130 °C [-40 °F to 266 °F] |
| Termination/ Connector | Cable & Bendix | Cable & Bendix | Cable | Connector | Connector | Connector |

*Absolute only available on 15.0 psi and above.

Force Sensors

SMT FS Series FSG15N1A FSS15NST 1865 **Signal Conditioning Un-Amplified Un-Amplified** Calibrated Amplified Technology Silicon Die Silicon Die Silicon Die Silicon Die (Piezoresistive) (Piezoresistive) (Piezoresistive) (Piezoresistive) **Force Range** 0 g to 1500 g 0 g to 1500 g 0 psi to 5 psi, 0 to 10, 0 lbs to 1.5 lbs, 0 to 15, 0 to 25, 0 lbs to 3 lbs 0 to 30 psi Voltage excitation = Output 360 mV 180 mV 3 Vdc 40 mV Typ., Current excitation = 100 mV Typ. Operating -40 °C to 85 °C -40 °C to 85 °C -28 °C to 54 °C 0 °C to 70 °C **Temperature Range** [-40 °F to 185 °F] [-40 °F to 185 °F] [-18 °F to 129 °F] [32 °F to 158 °F] **Temperature Range** No Temperature No Temperature Compensated Compensated Compensation -1 °C to 54 °C 5 °C to 50 °C Compensation [30 °F to 129 °F] [41 °F to 122 °F]

Switching and Sensing Technology at Honeywell

From basic switching to on-chip, signal conditioned sensors, Honeywell Sensing and Control offers a wide variety of system critical switching and sensing solutions for all of your application needs. For more information, visit our website and interactive catalog at www.honeywell.com/sensing.

Humidity Sensors

Humidity sensors from Honeywell are configured with integrated

circuitry to provide on-chip signal conditioning. These sensors contain a capacitive sensing die set in thermoset polymers that interacts with platinum electrodes. Absorption based humidity sensors provide both temperature and %RH (Relative Humidity) outputs. On-chip signal processing ensures linear voltage output versus %RH. Sensor laser

trimming offers + 5% RH accuracy, and achieves 2% RH accuracy with calibration. Packages are chemically resistant and operate in ranges of -40 °C to 85 °C (-40 °F to 185 °F) to accommodate harsh environments.

Temperature Sensors and Thermal Products



Temperature sensors provide a change in a physical parameter such as resistance or output voltage that corresponds to a temperature change. These sensors are suitable for applications that require small package size, accuracy, and linear outputs. Honeywell also offers a full line of heaters, thermistors, and thermostats.

Infrared Sensors

Optoelectronic sensors from Honeywell integrate optical principles and semi-conductor electronics. These sensors are reliable, cost effective sensors for applications which require object presence sensing, motion sensing, position encoding, limit sensing, movement detection and counting.

Basic Switches



hermetically sealed, and high temperature



switches. The precision snap-action mechanisms are offered with a wide variety of actuators and operating characteristics. MICRO SWITCH basic switches are ideal for applications requiring compactness, light weight, accurate repeatability and long life. Honeywell basic

switches, provide a very cost effective solution for applications that require presence/absence detection where physical contact with object is permissible.

Magnetic Position Sensors

The Honeywell Magnetic Position Sensor family



includes digital and analog Hall-effect position sensors, magnetoresistive digital sensors, Hall-effect vane sensors, gear tooth sensors, Hall-effect basic switch, and magnets. Magnetic Position Sensors are reliable, high speed, long life, sensors and are directly compatible with other electronic circuits.

These sensors respond to the presence or the interruption of a magnetic field by producing either a digital or an analog output proportional to the magnetic field strength. Digital and analog "sensor-only" devices are operated by the magnetic field from a permanent magnet or electromagnet. Position sensors from Honeywell are used in applications that require accurate, reliable outputs.

Position Transducers

The Honeywell Sensing and Control transducer products use potentiometric technology originally developed for military applications and more recently applied to industrial markets. The proprietary MystR®

conductive plastic has extensive temperature and power capabilities along with infinite resolution in very small stroke units (5 mm [0.2 in]) without any intermediate signal conditioning. In a world where miniaturization drives sensor development, potentiometers have shrunk to the point where their weight is measured in grams and their stroke in millimeters. This amazing technology can still be utilized for measurements in tens of feet with repeatability in thousandths of an inch.

Current Sensing

Current sensors monitor AC or DC current. Honeywell offers a broad line of adjustable linear, null balance, digital, and linear current sensors. Digital current sensors can sound an alarm, start a motor, open a valve or shut down a pump. The linear signal



duplicates the waveform of the current being sensed, and can be used as a feedback element to control a motor or regulate the amount of work being done by a machine.

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it 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.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

ASIA PACIFIC

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