

Quick Start Sheet

Heavy Duty Pressure Transducers, PX3 Series

New Product Introduction



NOT FOR END CUSTOMER USE



INTRODUCTION

Honeywell's Heavy Duty Pressure Transducers, PX3 Series, allows customers to meet both their sensor affordability and performance requirements for use in many harsh media environments. Their configurability

of pressure reference, pressure range, media seal, and port type provide flexibility of use in the application, while piezoresistive sensing technology provides enhanced accuracy, reliability, stability, and performance when the sensor is exposed to conditions of pressure, temperature and harsh media. Honeywell's platform design and engineering and supply chain expertise result in the ability to ship samples and production parts to the customer within four weeks of receiving the order. The sensor helps customers minimize their total cost of ownership due to no up-front non-recurring engineering (NRE) and tooling costs that some competitors might require.

The PX3 Series supports the following customer needs:

- **Delivers high efficiency:** Proven, $\pm 1.0\%$ FSS tight Total Error Band (TEB) accuracy promotes system efficiency and lower energy costs
- **Great customer value:** Economical choice for design/implementation; extremely flexible with multiple configuration possibilities with right combination of features and broad media compatibility
- **Durability promotes system uptime:** For enhanced performance in tough environments to support overall system quality, reliability and warranty
- **Fast availability:** Short lead times on samples and production parts

VALUE TO CUSTOMERS

- **Total Error Band ($\pm 1.0\%$ FSS typ.):** Provides the most comprehensive, clear and meaningful indication of the sensor's true measurement performance; small error promotes system uptime and efficiency.
- **High insulation resistance and dielectric strength:** Protect the user and sensor in high over-voltage situations, and ensures that the device is compliant with industry standards.
- **High EMC performance:** Operates reliably in the presence of electro-magnetic fields, such as near wireless signals, RF communication, and electrical devices.
- **High external freeze/thaw resistance:** Survives exposure to frost, commonly found in refrigeration systems.
- **Low current consumption:** Helps to reduce energy costs, and enhances product life if used in battery driven systems.
- **Media compatibility:** Common HFC (hydrofluorocarbon) refrigerants, next generation low global warming potential (GWP) refrigerants such as R32 and R1234ZE, petroleum oils, lubricants, hydraulic fluids, brake fluids, air and water. For ammonia and other corrosive media, see Honeywell's MLH Series and SPT Series.

DIFFERENTIATION

- **Efficient:** Proven, tight TEB accuracy.
- **Great customer value:** Multiple configuration possibilities with the right combination of features provide flexibility of use in the application; configurability on standard ports, pressure reference type, media seal type, and pressure range with no upfront NRE or tooling charges.
- **Durable:** Provides the tough environmental specs needed, including insulation resistance and dielectric strength, freeze-thaw resistance, and EMC performance.

FEATURES

- Pressure range: 1 bar to 46 bar | 15 psi to 667 psi (absolute and sealed gage)
- Ratiometric output: 0.5 Vdc to 4.5 Vdc
- Fully calibrated and temperature compensated
- Total Error Band: $\pm 1.0\%$ FSS from -20 to $85\text{ }^\circ\text{C}$ [-4 to $185\text{ }^\circ\text{F}$]
- External freeze/thaw resistance: 6 cycles from -30 to $50\text{ }^\circ\text{C}$ [-22 to $122\text{ }^\circ\text{F}$]
- High insulation resistance: $>100\text{ MOhm}$, 1500 Vdc
- High dielectric strength: AC1500V, 1 min. or AC1800V, 1 s
- Low current consumption: 3.5 mA max.
- EMC Radiated Immunity: 200 V/m per ISO 11452-2
- Ingress protection up to IP67
- Response time: $<2\text{ ms}$
- RoHS, REACH, and CE compliant
- Coming soon: Copper tube port, 4-20 mA output type, cable harness termination, vented gage pressure reference, alternative media seals, and extended pressure ranges are planned for future release as part of the PX3 Series platform

PORTFOLIO SUMMARY

The PX3 Series is the next generation of Honeywell's PX Series of high performance heavy duty pressure transducers, with limited configurability by design, to meet competitive cost and service responsiveness expectations of global HVAC and refrigeration customers. If customers need regulated type output, alternate electrical terminations, or alternate pressure port styles, they should consider PX2 Series Pressure Transducers. Additional information is available in the *Selection Guide: Honeywell PX3 Series, PX2 Series, MLH Series*.

COMPETITION

Includes products from MSI, Sensata, Kavlico, and Saginomiya. Honeywell's strengths:

- **Versus MSI M7100:** Proof pressure, burst pressure, insulation resistance, dielectric strength*, supply current, outputs, pressure reference, media temperature range*, EMC, freeze/thaw*
- **Versus Sensata 2HMP:** TEB, insulation resistance*, dielectric strength, supply current, pressure reference*, media temperature range*, life or pressure cycles, EMC, freeze/thaw*, compensated temperature range*
(continued on next page)

* indicates competitor doesn't specify characteristic in datasheet

Heavy Duty Pressure Transducers, PX3 Series

- **Versus Sensata 2CP5, 2CP50:** Proof pressure, burst pressure, ingress protection, insulation resistance*, dielectric strength*, supply current, media temperature range*, compensated temperature range*, EMC, freeze/thaw*
- **Versus Kavlico P4000:** TEB, insulation resistance*, dielectric strength*, supply current, media temperature range*, life or pressure cycles, EMC*, freeze/thaw*
- **Versus Kavlico PE2000:** TEB, proof pressure, burst pressure, ingress protection, insulation resistance*, dielectric strength*, supply current, media temperature range, EMC*, freeze/thaw*
- **Versus Saginomiya NSK:** Pressure range, TEB, ingress protection, insulation resistance*, dielectric strength*, supply current, pressure reference*, media temperature range, compensated temperature range*, operating temperature range, life or pressure cycles*, EMC*, freeze/thaw*, agency approvals

POTENTIAL APPLICATIONS

- Industrial: Refrigerant pressure monitoring in HVAC/R systems; air compressor system pressure
- Transportation: Air system monitoring; hydraulic oil pressure monitoring

POTENTIAL SELLING CYCLE

Varies widely by application; estimated 2 to 6 months.

SAMPLES

Available on the Samples Portal March 14, 2016.

PRODUCT AVAILABILITY

Available publicly March 14, 2016.

SERVICE LEVEL

Please allow 20 days to process production orders.

TRAINING AND CUSTOMER VISITS

Product marketing:

- Global: Valerie Rothermel-Nelson, Sr. Global Product Manager, valerie.rothermel@honeywell.com, +1 815-266-3143 and Hossam Rasheed, Product Specialist, hossam.rasheed@honeywell.com, +1 763-954-5518
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- EMEA: Jochen Schiffner, jochen.schiffner@Honeywell.com, +49 698064317

* indicates competitor doesn't specify characteristic in datasheet

- Greater China: Jarvis Gu, jarvis.gu@honeywell.com, +86 21 22196498

ADDITIONAL MATERIALS

- AD master stocking plan
- Application note: PX3 Series
- Application note: HVACR systems
- Application note: HVAC Refrigeration
- Banner ad
- Brochure: product line guide
- CAD
- Certification: RoHS2
- Certification: REACH
- Competitive cross reference
- Images
- Installation instructions
- Nomenclature document
- Potential customer list
- Presentation: channel
- Presentation: end customer
- Quick Start Sheet
- Sales resource product overview
- Sales resource SEO keywords
- Sales resource pass along email
- Selection Guide: Honeywell PX3 Series, PX2 Series, MLH Series
- Technical note: media compatibility
- Technical note: Total Error Band
- Value proposition

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items 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. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to 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.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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