

## Epicor 10 Transition

We have been live on our new Epicor 10 ERP system for four months, and we appreciate your patience while we have been streamlining our internal processes to integrate with the software. Our deliveries have been somewhat affected by this transition in the short term, but this will be rectified by mid-March. We remain committed to continuing to provide the highest standards of service, support and value to our distributor and customer partners during this transition.

***Thank you again for your patience throughout this process!***

Epicor 10 is Epicor's flagship Enterprise Resource Planning application, and will provide multiple strategic solutions to further strengthen our customer partnerships, drive growth, enhance efficiency and accuracy, and allow us to provide even higher levels of service and performance to all of our stakeholders.

## Faster Delivery, Lower Costs

As an initiative to enhance the quality of service we deliver to our customers, NOSHOK recently announced our new Volume Distribution Partnership with FedEx. This partnership was designed to increase our logistic efficiency and allow us to provide improved transit times and lower shipment costs to our customer and distributor partners. The results have been very positive.



As the charts below indicate, **transit times have been 28.4% faster** than they would have been shipping via UPS in the last two months.

We are confident that this upgraded service will continue to be beneficial in our ongoing effort to continually improve processes for increased customer satisfaction and value.

FedEx Ground Transit Summary			
Days	Packages	%	Cum. %
1	233	21.4	21.4
2	434	39.9	61.3
3	287	26.4	87.7
4	134	12.3	100.0
5	0	0.0	100.0
6	0	0.0	100.0
7	0	0.0	100.0
Totals	1,088	100.0	100.0
Average FedEx Ground Transit Days: 2.30			

UPS Ground Transit Summary			
Days	Packages	%	Cum. %
1	211	19.4	19.4
2	309	28.4	47.8
3	265	24.4	72.2
4	299	27.5	99.6
5	4	0.4	100.0
6	0	0.0	100.0
7	0	0.0	100.0
Totals	1,088	100.0	100.0
Average UPS Ground Transit Days: 2.61			

Transit Time Comparison		
	Lanes %	Packages %
FedEx Ground Faster	26.4	28.4
FedEx Ground Slower	0.0	0.0

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Volume 8, Issue 1

### EDITOR'S NOTE

- E10 Transition
- Faster Delivery, Lower Costs

### PRODUCT FOCUS

- **NEW** Direct Connect Assembly
- Measurement Solutions for the Water & Wastewater Industry

### APPLICATION INSIGHT

- Gauge, Absolute, Sealed & Differential Pressure

### NOSHOK NEWS

- NOSHOK Welcomes New Quality Assurance Manager, New Midwest Regional Sales Manager, and New Instrument Product Manager
- Invoice Inquiries

### TECH TIP

- Are pigtail steam syphons used in transmitter applications?

### CUSTOMER CONNECTION

- **WIN A MOTOROLA SMART WATCH!**

### ELECTRONIC NOTIFICATIONS

You can now receive all acknowledgements, invoices and/or UPS shipping notifications electronically.

**[Sign up now!](#)**

## Product Focus

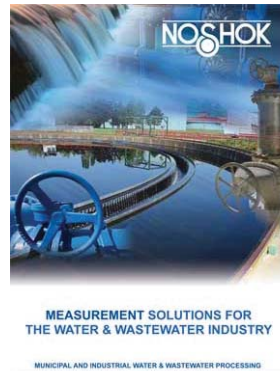
### NEW: Direct Connect Assembly

The NOSHOK Direct Connect Assembly provides an installation that keeps the meter close to the orifice taps for accurate flow measurements.

- Reduces traditional remote mount installation costs by eliminating tube ends, tube fittings, stainless steel tubing, pipe stands and mounting brackets
- Decreases leak points by reducing NPT connections
- Minimizes or eliminates gauge line error
- Can include 2- or 5-valve manifolds including the NOSHOK Flare Pattern™ 5-Valve Natural Gas Manifold, as well as Stabilized Connectors, Stabilized Connectors with Integral Valve, Non-Stabilized Connectors and Dielectric Kits
- Wide variety of adapter options including  $\Delta$  Pressure to  $\Delta$  Pressure Adaptor,  $\Delta$  Pressure to Static Pressure Plate, Static Adaptors and Horizontal to Vertical Adaptors

## Measurement Solutions for the Water & Wastewater Industry

NOSHOK provides a variety of products and application-focused assemblies to the water & wastewater industry which are ideal for a variety of municipal and industrial applications including pumping & lift stations, tanks, chemical feed, dewatering and grinder systems, reverse osmosis, desalination plants and many more.



#### Featured products include:

- Cage-protected level transmitters designed for severe high solids environments
- Shock and chemical-resistant vacuum and pressure gauges
- Range of pressure transmitters - front flush diaphragm option available for high viscosity media
- Pressure & temperature transmitter/switches
- Wide variety of diaphragm seals including a clog-resistant flow-through annular style seal for slurries & heavy sludges, and a non-metallic seal for wastewater & chemical feed
- Temperature measurement instruments including industrial RTDs, temperature transmitters & bimetal thermometers
- Needle & manifold valves in hard & soft seat, with a wide range of connection, flange and material options

#### Featured assemblies include:

- An all non-metallic diaphragm seal & pressure transmitter/switch - this proven solution is used in many municipalities, and replaces much larger & heavier gauge/switch/diaphragm seal assemblies for pump shut-off protection
- Distribution Manifold Assembly connects multiple instruments to one diaphragm seal, eliminating multiple connections that lead to possible leak paths. Its lower fill volume also enhances performance and decreases temperature error; a variety of sizes and configurations are available.



[More info](#)  
[RFQ](#)



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[More info on transmitter/switch](#)  
[More info on diaphragm seal](#)



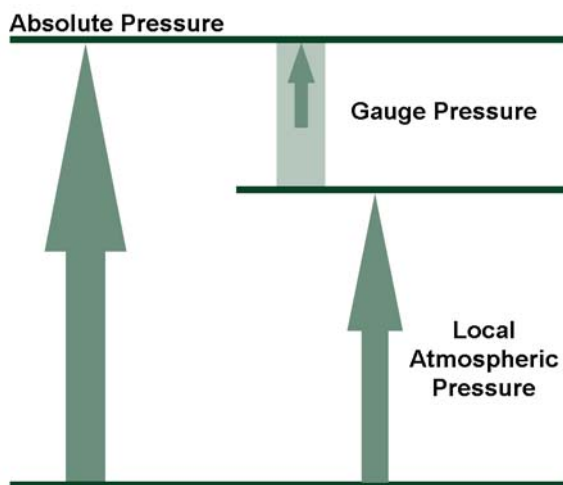
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# GAUGE, ABSOLUTE, SEALED & DIFFERENTIAL PRESSURE DEFINED

Pressure is a simple concept, defined as the force applied perpendicular to the surface of an object per unit area over which that force is distributed. There are many ways to reference and identify pressure, which is largely dependent upon the application.

In many applications, there is a common misconception that all pressure measurement needs to be absolute. While there are certainly applications in which absolute pressure measurement makes sense, most applications only require gauge pressure. Understanding the details of an application can make selecting an appropriate pressure sensor easy. Below are a few of the most commonly referenced types of pressure:

**Gauge Pressure** (psig) references the atmosphere around the sensor, or ambient air pressure. Put simply it is the absolute pressure minus the atmospheric pressure. The sensing element has a deflection due to a pressure change, and therefore



a reference point is required to identify exactly the pressure is being measured. Pressure sensors that use Gauge Pressure (usually psig, barg, and kpag) include a vent. This vent can be built in to the sensor itself, or through a tube in the electrical connection. The vent is positioned to use atmospheric pressure as a reference point for the sensor to measure the media, so when the pressure port is exposed to the atmosphere, the sensor will read 0 psig. Using Gauge Pressure ensures that at any location in the world, the sensor

will always reference the location in which it is installed.

While Gauge Pressure is measured from atmospheric, **Absolute Pressure** (psia) is measured from absolute zero pressure, so when the pressure port is exposed to the atmosphere the sensor will indicate atmospheric pressure (approx. 14.7 psia). Absolute Pressure uses a full vacuum as its reference - it is the gauge pressure of the media plus the pressure of the atmosphere. In different locations and elevations, the reference point can change because of atmospheric pressure variations. The atmospheric pressure varies with temperature and altitude above sea level. An absolute pressure sensor eliminates the reference to varying atmospheric pressure and relying on a specific pressure range for reference.





# GAUGE, ABSOLUTE, SEALED & DIFFERENTIAL PRESSURE DEFINED (Cont'd)

**Sealed Pressure** (psis) is referenced to the prevailing atmospheric pressure which is hermetically sealed in the chamber within the sensor. No venting is needed because the reference point is pre-determined. When the pressure port is exposed to ambient atmosphere the sensor will indicate 0 psi when the ambient atmosphere is identical to the sealed atmosphere. These sensors are useful in applications where it is not possible to provide a vent path, such as a depth sensor used inside a submersible vehicle with no surface vent tube, in which the sensor needs to measure depth relative to atmospheric pressure at the surface. A sealed pressure sensor can also be used to provide additional containment for high pressure safety in case the diaphragm bursts.

**Differential Pressure** simply indicates the pressure difference between two pressure measurements. A differential pressure sensor is used to identify the difference between two separate pressure input ports. For example, differential pressure is used to monitor the pressure drop (or loss) from area of an object to the other, such as pressures outside and inside a pipe, levels within a pressure vessel, before and after a barrier in a flow path, or even between two points along any flow path.

## Units of Pressure

**psi** (pounds per square inch): The unit of measure for one pound of force applied to one square inch of area - psi is the traditional unit of pressure in the imperial and US customary systems and is not part of the International System of Units (SI).

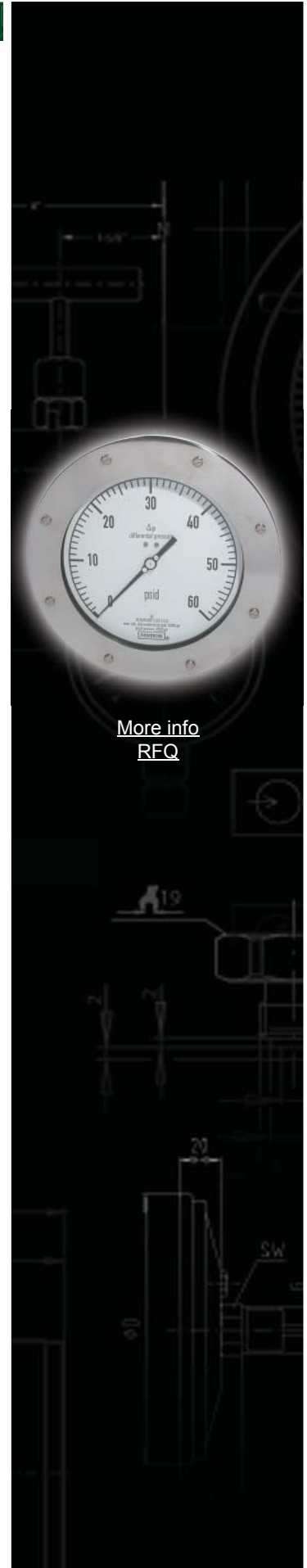
**bar**: One bar equals the atmospheric pressure on the Earth at sea level, which is exactly equal to 100000 Pa. The bar unit is a metric unit of pressure, but not part of the International System of Units (SI).

**Pa** (Pascal): One Pascal is the International System of Units (SI) derived unit of pressure. One Pascal is defined as one newton per square meter.

**inHg** (inches of Mercury): inHg is defined as the pressure exerted at the base of a column of mercury exactly 1 inch (in) high, at gravity and 0°C (32°F). The inHg is not part of the International System of Units (SI) 1 inHg = 3.38638 kPa. inHg are typically used barometric pressure.

**torr**: A unit of pressure based on an absolute scale and is defined as exactly 1/760 of a standard atmosphere. Historically, one torr was intended to be the same as one "millimetre of mercury". The torr is not part of the International System of Units (SI).

**inH<sub>2</sub>O** (inches of water): The pressure exerted at the base of a column of water exactly 1 inch (in) high, at gravity and 4°C (39.2°F). The inH<sub>2</sub>O is not part of the International System of Units (SI) 1 inH<sub>2</sub>O = 0.249082 kPa. It is typically used for a differential pressure measurement or in low pressure water applications.



[More info](#)  
[REQ](#)

### New Quality Assurance Manager

NOSHOK is pleased to welcome a new team member, Barry Rowley, who has recently taken on the role of Quality Assurance Manager.

Adding Barry to the team allows NOSHOK to achieve an even higher focus on meeting and exceeding ISO quality standards and requirements, and to provide our stakeholders with the highest level of quality, service and value.

Barry has a Bachelors degree from Eastern Michigan University, and brings nearly 30 years of experience in quality management, project management and program management in a variety of industries to NOSHOK. Barry's wealth of skills and experience has given him extensive knowledge of ISO quality standards and technical specifications, making him a great asset to NOSHOK and our continued commitment to improving processes and providing the highest degree of value and customer satisfaction. Please join us in welcoming Barry to the NOSHOK team!



[Barry C. Rowley](#)  
[More info](#)

### New Midwest Regional Sales Manager & Instrument Product Manager

NOSHOK is also pleased to announce the addition of Jim Hansen, who has taken on the role of Midwest Regional Sales Manager, effective immediately.

Jim brings over 20 years of professional sales experience with flow, level, pressure, temperature, and wireless instrumentation to NOSHOK, along with extensive process control and automation knowledge. His background includes positions in process design engineering, application engineering, and technical sales roles at Emerson Process Management, in the Rosemount Measurement Division. This experience along with his passion and dedication to customer relationship building will make Jim a great asset to the NOSHOK team.



[James C. Hansen](#)  
[More info](#)

NOSHOK is also pleased to announce that Jeff Dillen will take on the role of Instrument Product Manager, effective immediately. Jeff has been a key member of the NOSHOK team for over 12 years, with 21 years of experience in product training, fleet management, and territory and regional sales management.

As Instrument Product Manager, Jeff will focus on developing current opportunities, as well as leveraging potential for growth and expansion based on market needs and new technology. Jeff's extensive knowledge of NOSHOK products, along with his proven track record of outstanding customer and sales support make him an ideal fit for this position.



[Jeffrey C. Dillen](#)  
[More info](#)

Please join us in welcoming Jim to the NOSHOK team, and congratulating Jeff on his new role!

### INVOICE INQUIRIES

For the fastest response to your invoice inquiries, please email [invoices@noshok.com](mailto:invoices@noshok.com)

## Tech Tip

### Q: Can traditional diaphragm seals or gauge protectors be used with pressure transducers and transmitters?

A: Most diaphragm seals can be used with pressure transducers and transmitters. The real key is to assemble and fill the seal properly, being careful not to entrap air in the fill fluid.

[See more NOSHOK Tech Tips](#)



## Customer Connection

### WIN A MOTOROLA MOTO 360 SMART WATCH (1st Gen)!

Take just a few minutes to fill out our BRIEF newly updated [Customer Survey](#), and you will be automatically entered to win a Motorola Moto 360 Smart Watch (1st Gen)!

This short survey asks a few questions to help us assess our overall performance and make improvements to the quality of products and services we provide.

Your feedback will enable us to continually improve our level of Customer Satisfaction and bring you the highest level of value possible.

A winner will be randomly selected from the list of people who have taken the survey between March 14th and April 15th. The drawing will be held on April 18th, and the winner will be notified by email and/or telephone.

Your opinion matters – thank you for taking the time to help us help you!



[Take the Survey now!](#)

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For more information on NOSHOK products, please visit our website at [www.noshok.com](http://www.noshok.com)

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