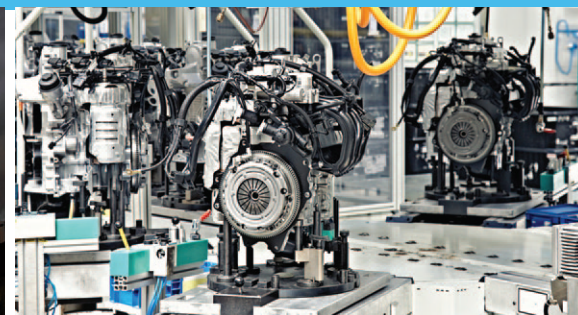




# PRESSURE SENSING SOLUTIONS

Test | Measurement | Process | Control



solutions for

# Test, Measurement, & Process Control



**When performance, reliability and flexibility are more than just passing considerations.**

Since 1965, Viatran has partnered with world leading automotive, aerospace, transportation system and industrial equipment manufacturers to develop pressure sensing solutions ideally suited to their Test, Measurement, Process and Control applications.

These solutions frequently overcame difficult performance, durability and customization challenges and resulted in pressure sensors with the best combination of attributes for our customers' requirements.

Over the decades this problem-solving orientation has guided our product development choices and the way we've organized our applications support and manufacturing capabilities.

Viatran is totally focused on providing you with an optimal pressure sensing solution in terms of performance, durability, flexibility and value.

# APPLICATION ADVANTAGES

## VIATRAN Pressure Sensors

### PERFORMANCE

Our pressure sensing solutions can be matched to your specific application requirements, including:

- Pressure Ranges
- Pressure Cycling (positive and negative)
- Accuracy
- Responsiveness
- Process Ports
- Electrical Termination
- Potted Electronics
- Wiring Configurations
- Shunt Calibration Options
- Custom Output Signals (positive and negative)
- Fully Welded Construction

### RELIABILITY

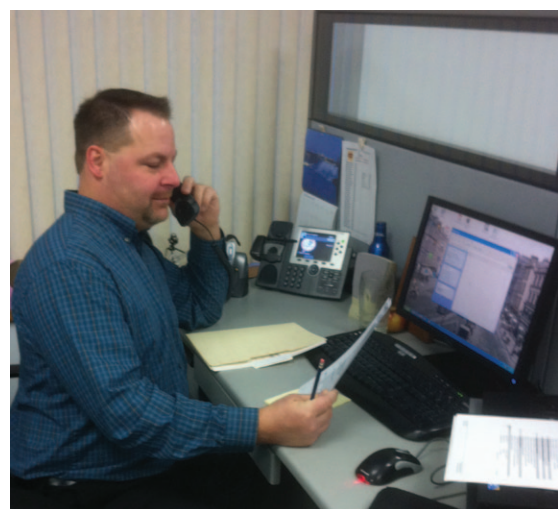
Viatran pressure sensors are designed for accurate and repeatable performance, even in the most inhospitable environments that include:

- Temperature Extremes
- Shock and Vibration
- Excessive Moisture
- Corrosive Chemicals
- Electro-Magnetic Interference

### CERTIFICATION & APPROVALS

ISO-9001 certification affirms the quality of Viatran zone manufacturing process. In addition, Viatran products typically meet certification standards for specific industries or for the applications in which they will be used. These include:

- ATEX, Intrinsically Safe, Flame Proof & Non-Sparking
- Canada Intrinsically Safe, Explosion Proof & Non-incendive
- CRN Registration, Pressure Vessel Fittings
- CE (European Conformance Testing for EMI)
- CE Pressure Equipment Directive (PED 2014/68/EU)
- GOST-R (Russian Federation) Certificate of Conformity
- US Intrinsically Safe, Explosion Proof & Non-incendive
- RoHS (Restriction of Hazardous Substances) Compliant



With our Test, Measurement, Process and Control experience, Viatran's applications specialists are probably very familiar with your application or something similar.

Ask us about: special materials, enhanced accuracy, submersible sensors, special connections, space-saving configurations ... anything about pressure sensing that is related to your application. Take advantage of our expertise and knowledge.

**For application support call:**

**1-800-688-0030**

# TEST | MEASUREMENT | PROCESS | CONTROL

	247 / 347	24A / 34A	24B / 34B	14B	245/345
					
<b>Approvals</b>	CE, GOST-R	CE	CE	CE	CE, GOST-R, CRN
<b>Features</b>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Great value</li> <li>• External adjustment</li> <li>• Vacuum and compound ranges available</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Silicon sensor</li> <li>• External adjustment</li> <li>• Vacuum and Compound ranges available</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Solid diaphragm sensor</li> <li>• External adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Solid diaphragm sensor</li> <li>• External adjustment</li> <li>• 350 <math>\Omega</math> bridge</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Highest accuracy</li> <li>• External adjustment</li> <li>• Vacuum and compound ranges available</li> </ul>
<b>Minimum Range (PSI)</b>	0 - 3	0 - 3	0 - 300	0 - 100	0 - 3
<b>Maximum Range (PSI)</b>	0 - 15K	0 - 5K	0 - 15K	0 - 15K	0 - 100K
<b>Output*</b>	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc†	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc†	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc†	3.0 mV/V	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc†
<b>Input Voltage*</b>	8 - 30 Vdc	8 - 30 Vdc	8 - 30 Vdc	10 Vdc nominal 15 Vdc max	9 - 30 Vdc
<b>Improved Accuracy (Non Linearity)*</b>	± 0.35%	± 0.10%	± 0.10%	± 0.30%* *Range dependent	± 0.04%* *Range dependent
<b>Standard Pressure Connection</b>	1/4" NPT (F)	1/4" NPT (F)	1/4" NPT (F)	1/4" NPT (F)	1/4" NPT (F) (< 15K PSI) F250-C (20 - 50K PSI) F312-C (60-100K PSI)
<b>Standard Electrical Connection</b>	DIN Plug 43650	6 pin Circular Quick-Disconnect Bayonet Style	6 pin Circular Quick-Disconnect Bayonet Style	6 pin Circular Quick-Disconnect Bayonet Style	6 pin Circular Quick-Disconnect Bayonet Style
<b>Extended Compensated Temperature range*</b>	70°F to 170°F	-40°F to 185°F	-40°F to 185°F	70°F to 170°F	-40°F to 185°F (< 5K PSI) 70°F to 170°F (> 5K PSI)
<b>Operating Temperature range</b>	-20°F to 200°F	-40°F to 185°F	-40°F to 185°F	-40°F to 185°F	-40°F to 185°F
<b>Weight</b>	10 oz	10 oz	10 oz	10 oz	10 oz
<b>Std. Wetted Parts</b>	316 SS < 200 PSI 15-5 PH® SS ≥ 300 PSI	316 SS	15-5 PH® SS	15-5 PH® SS	316 SS < 5K PSI 13-8 Mo PH SS > 15K PSI 15-5 PH®SS 7.5K-15K PSI

All specifications are subject to change at the discretion of the manufacturer. Many more features are outlined on product data sheets; this is not an all inclusive list of product features. Contact your Viatran rep for additional information.

Models identified as *RapidShip*  offer specific configurations which are available within 48 hours, check with your Viatran rep for details.


422 / 423	570/770/870	571	177 / 277 / 377	276/376
	 			
CE, GOST-R* (*Model 422 only)	CE, GOST-R, FM, CSA, ATEX, CRN	CE, GOST-R, FM, CSA, ATEX	CE	CE
<ul style="list-style-type: none"> <li>• 7/8" diameter</li> <li>• Compact &amp; lightweight</li> <li>• Vacuum and compound ranges available</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Hazardous location approvals</li> <li>• General purpose</li> <li>• Alternate wetted parts</li> <li>• High pressure</li> </ul>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Hazardous location approvals.</li> <li>• 4:1 Ranging</li> <li>• Sealed external adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Differential pressure</li> <li>• Single diaphragm</li> <li>• High overpressure</li> <li>• External adjustment</li> <li>• High vibration areas</li> </ul>	<ul style="list-style-type: none"> <li>• Differential pressure</li> <li>• Fast response</li> <li>• Compact size</li> <li>• External adjustment</li> <li>• Low pressures</li> </ul>
0 - 3	0 - 100	0 - 100	0 - 3" WC	0 - 5" WC
0 - 5K	0 - 100K	0 - 100K	0 - 1000 PSID	0 - 100 PSID
4 - 20 mA 0 - 5 Vdc 0 - 10 Vdct	1.2 - 3 mV/V 4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc	4 - 20 mA	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc 3 mv/V	4 - 20 mA 0 - 5 Vdc 0 - 10 Vdc
9 - 30 Vdc 422 8 - 28 Vdc 423	12 - 30 Vdc 570/770 10 - 15 Vdc 870	12 - 30 Vdc	9 - 40 Vdc 10 - 15 Vdc	10 - 45 Vdc
± 0.04%	± 0.20%* *Range dependent	± 0.20%* *Range Dependent	± 0.20%	± 0.15%
1/8" NPT (F)	1/4" NPT (F) (< 15K PSI) F250-C (20 -50K PSI) F312-C (60-100K PSI)	1/4" NPT (F) (< 15K PSI) F250-C (20 -50K PSI) F312-C (60-100K PSI)	1/4" NPT (F)	1/4" NPT (F)
6 pin Circular (Welded) Quick-Disconnect Bayonet Style	1/2" NPT (M), conduit, 18 AWG wire, 72" long	1/2" NPT (M), conduit, 18 AWG wire, 72" long	6 pin Circular Quick-Disconnect Bayonet Style	6 pin Circular Quick-Disconnect Bayonet Style
-40°F to 185°F	70°F to 170°F	70°F to 170°F	70°F to 170°F	0°F to 200°F
-40°F to 185°F	-40°F to 190°F	-40°F to 220°F	0°F to 185°F	-40°F to 185°F
4 oz	24 oz	24 oz	3.5 lbs	32 oz
316 SS	15-5 PH® SS < 15K 13-8 Mo PH SS > 15K	15-5 PH® SS < 15K 13- 8 Mo PH SS > 15K	316 SS Viton® O-Ring	316 SS

\* Improved or other options are available

† Requires 12 VDC minimum excitation

	548 / 748 / 848	287 / 387	J87 / N87	386	28H / 38H
					
<b>Approvals</b>	CE, CSA, EX, FM, GOST-R	CE	CE	CE	CE
<b>Features</b>	<ul style="list-style-type: none"> <li>• 1.5" diameter</li> <li>• Hazardous locations</li> <li>• External adjustment</li> <li>• Low pressure</li> </ul>	<ul style="list-style-type: none"> <li>• 1" diameter</li> <li>• Silicon sensor</li> <li>• All stainless construction</li> <li>• Hot test applications</li> </ul>	<ul style="list-style-type: none"> <li>• 1" diameter</li> <li>• CANopen</li> <li>• SAE J1939</li> </ul>	<ul style="list-style-type: none"> <li>• 1" diameter</li> <li>• Flush tip</li> <li>• Solid machined</li> <li>• Diaphragm sensor</li> </ul>	<ul style="list-style-type: none"> <li>• Barometric pressure</li> <li>• All stainless construction</li> </ul>
<b>Minimum Range (PSI)</b>	0 - 3	0 - 3	0 - 3	0 - 100 PSIG, PSIS	25 - 32" HgA
<b>Maximum Range (PSI)</b>	0 - 5K	0 - 500	0 - 5K	0 - 10K PSIG, PSIS	0 - 32" HgA **
<b>Output*</b>	4 - 20 mA 0 - 5 Vdc 5 mV/V (3-5 PSI) 10 mV/V (10 PSI & up)	0 - 5 Vdc 0 - 10 Vdc 4 - 20 mA Ratiometric	CANopen Digital (N87) SAE J1939 Digital (J87)	4 - 20 mA	4 - 20 mA 0 - 5 Vdc
<b>Input Voltage*</b>	9 - 30 Vdc (548 / 748) 15 Vdc Max (848)	8 - 30 Vdc	5.4 - 18 Vdc	8 - 28 Vdc	9 - 40 Vdc
<b>Improved Accuracy (Non Linearity)*</b>	±0.25%	±0.10%	±0.08%	≤±0.50%	±0.10%
<b>Standard Pressure Connection</b>	1/4" NPT (F)	G 1/4" (M)	1/4" NPT (F)	1/2" NPT (M)	1/4" NPT (F)
<b>Standard Electrical Connection</b>	1/2" NPT (M), conduit 18 AWG wire, 72" long	6 pin Circular Quick-Disconnect Bayonet Style	5 pin Micro (M12) per IEC 60947-5-2	6 pin Circular (Welded) Quick-Disconnect Bayonet Style	6 pin Circular Quick-Disconnect Bayonet Style
<b>Extended Compensated Temperature range*</b>	32°F to 180°F	70°F to 257°F	32°F to 180°F	-40°F to 185°F	70°F to 170°F
<b>Operating Temperature range</b>	-40°F to 185°F	-40°F to 257°F	-40°F to 185°F	-40°F to 185°F	-40°F to 185°F
<b>Weight</b>	10 oz	5 oz	5 oz	8 oz	10 oz
<b>Std. Wetted Parts</b>	316 SS	316 SS	316 SS	15-5 PH® SS 304L SS	316 SS

All specifications are subject to change at the discretion of the manufacturer. Many more features are outlined on product data sheets; this is not an all inclusive list of product features. Contact your Viatran rep for additional information.

Models identified as *RapidShip*  offer specific configurations which are available within 48 hours, check with your Viatran rep for details.

\* Improved or other options are available \*\* Must maintain a span of ≥ 7" HgA

# ACCESSORIES

## CONNECTORS AND CABLE ASSEMBLIES

Viatran offers a wide variety of mating connectors that can be purchased individually or assembled with a variety of cable types to meet every, application.

For a more premium solution, check out our line of ruggedized mating cable assemblies with better quality cable and plug designs for harsh environmental applications.

## RUGGEDIZED CONNECTORS AND CABLE ASSEMBLIES

- Designed for harsh environments where dependability is critical
- Submersion tested to 50 foot depth over 5 days (IP68)
- Easy to grip and securely lock body
- Various cable entry sizes available
- Offered with or without tethered protective cap
- Can be purchased individually or assembled with cable

## DL SERIES – DUAL-LINE ANALOG INPUT PROCESS METERS

The DL Series analog input process meters are a multi-purpose, easy-to-use digital process meter ideal for level, flow rate, temperature, or pressure transmitter applications. It accepts current and voltage signals (e.g. 4-20 mA, 0-10 V). Three of the front panel buttons can be custom-programmed for a specific operation. The analog input can be scaled to display the process in two different scales.

Contact a Viatran Applications Engineer for assistance in configuring a meter for your application.



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