Pressure Sensing Solutions

OIL AND GAS











Because Viatran has been designing and manufacturing pressuresensing instruments for the Oil & Gas Industry for more than 40 years, we are intimately familiar with the demanding performance, reliability and adaptability requirements for secondary recovery, drilling, offshore and land-based production. What's more, our professional sales and applications engineers are dedicated to making sure you get pressure sensing solutions that are a perfect fit for your applications.

DESIGNED FOR RUGGED ENVIRONMENTAL CONDITIONS

Temp extremes | Shock and vibration | Moisture and chemical



Essential needs always designed in:

- Maximized productivity
- High % ROI
- Safety in operation



Multiple Viatran sensing technologies:

- Measure pressure from draft to 100k psi
- Handle rugged media without damaging or clogging sensor
- Remain accurate after exposure to high overpressures



Wide variety of configurations

- Gage, absolute, vacuum, differential formats
- mA, mV/V, V, Canbus, Hart outputs
- Modified outputs, custom wiring, special pressure ranges



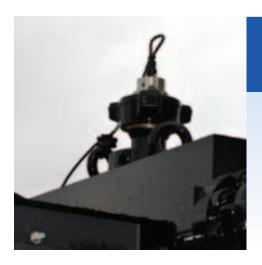




Hazardous location certifications from FM, CSA, ATEX and ETL

- Explosion proof
- Non-Incendive
- Instrinsically safe

HYDRAULIC FRACTURING



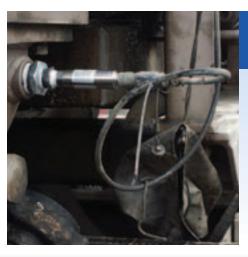
HAMMER UNION MODELS 509, 510 and 520 Pump discharge pressure for fracturing, acidizing, cementing and nitrogen injection

- 8 gage sensor design eliminates mounting stress
- Wetted surface resists corrosion and cracking during acidizing
- Rugged, withstands extreme shock and vibration



GENERAL PURPOSE MODEL 347 Lube oil and transmission pressure

- Popular pressure ranges in stock for quick turnaround
- Economical, with quick shipment options
- CE compliant with excellent RFI protection



FLUSH TIP MODEL 385 Manifold charge pressure, pump suction

- Advanced design minimizes torque effect on the diaphragm
- Withstands pressure spikes up to 5x pressure range
- Long lasting, rugged stainless steel diaphragm

DRILLING

510 HAMMER UNION MWD, Mud Pump Pressure



- Able to detect 100 psi pulse through 6 kpsi pressure in well.
- EMI/RFI filtering device reduces effect of noise on small pressure pulses
- Withstands extreme vibration, repairable, welded option available

PT332 HIGH TEMPERATURE Downhole Drill Tool



- Minimum pressure 500 psi
- Maximum pressure 35K psi
- Temperature compensated up to 450°F
- Inconel 718 wetted surface

570 HAZARDOUS LOCATION Hookload Pressure



- Hazardous approvals required for drilling sites
- Compact, accurate and reliable
- Other applications include floor wrenches, automated power catwalks, annulus



Talk to a Live Applications Specialist

With our decades of Oil and Gas 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. There are no extra charges for this service.

For application support call: 1-800-688-0030

OFFSHORE RIG SAFETY, WELLHEAD CONTROL, FLOWLINE



- Measurements for wellhead control and rig safety
- Withstands extreme weather conditions
- Reliability out of the box, no tolerance for fallout

MODEL	DESCRIPTION
570	Fixed range
571	Manually adjustable
970	Dual seal Hart

LAND BASED PRODUCTION WELL OPTIMIZATION, PRODUCED WATER, CASING AND TUBING



- Measurements for casing and tubing pressures
- Remote locations that require solar or battery powered devices
- Liquid tank measurements require high accuracy level measurements

MODEL	DESCRIPTION
780	Low current consumption 2000V surge protected
LP748	High accuracy, reads down to 20"WC, low current consumption

OIL & GAS PRODUCTS

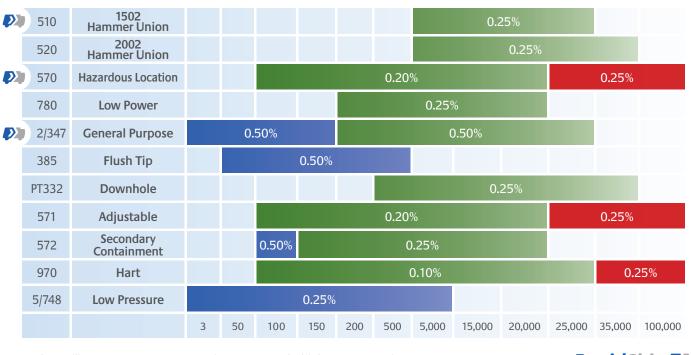
	510	520	570/770/870/970	571	572
				90	
Approvals	FM, ATEX, CSA, CE, GOST	FM, ATEX, CSA, CE, GOST	FM, ATEX, CSA, CE, GOST	CE; GOST; FM; CSA, ATEX	FM, ATEX, CSA, CE, GOST
Features	No mounting stress Shock and vibration resistant Repairable	No mounting stress Shock and vibration resistant Repairable	Very rugged General purpose Alternate wetted parts	Magnetically coupled external adjustments 4:1 ranging Internal calibration shunt	Secondary containment rating to 40Kpsi Magnetically coupled external adjustments Built in field calibration signal
Minimum Range (PSI)	0 - 5K	0 - 5K	0 - 100	0 - 100	0 - 100
Maximum Range (PSI)	0 - 20K	0 - 25K	0 - 100K	0 - 100K	0 - 20K
Output	4 - 20 mA	4 - 20 mA	4 - 20 mA 0 - 5 VDC 0 - 10 VDC 2 mV/V HART	4 - 20 mA	4 - 20 mA
Input Voltage	10.5 - 28 VDC	10.5 - 28 VDC	12 - 36 VDC	12 - 30 VDC	10 - 40 VDC
Combined Accuracy (RSS)	.25%	.25%	.25%	.25%	.25%
Standard Pressure Connection	1502 Hammer Union	2002 Hammer Union	1⁄4" NPT (F) ≤ 15K PSI	1⁄4" NPT (F) ≤ 15K PSI	14" NPT (F)
Standard Electrical Connection	6 pin bayonet	6 pin bayonet	1/2" NPT (M), 18 AWG wire, 72"	½" NPT (M), 18 AWG wire, 72"	½" NPT (M), 18 AWG wire, 72"
Compensated Temperature Range	40°F to 140°F	40°F to 140°F	70°F to 170°F	70°F to 170°F	0°F to 180°F
Operating Temperature Range	-40°F to 185°F	-40°F to 185°F	-40°F to 185°F	-40°F to 185°F	-10°F to 190°F
Weight	5.5 lbs	5.5 lbs	24 oz	24 oz	4.5 lbs
Std. Wetted Parts	Inconel X750	Inconel X750	15-5PH SS ≤ 15K PH 13 - 8 Mo ≥ 20K	15-5PH SS ≤ 15K PH 13 - 8 Mo ≥ 20K	Hastelloy C - 276

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.

2/347	548/748/848	780	PT332	LP748	385
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CE; GOST	FM, ATEX, CSA, CE, GOST	FM, ATEX, CSA, CE, GOST, Intertek		FM, ATEX, CSA, CE, GOST	CE, GOST
Great Value Zero adjust	Great value Flexible configuration Ranges down to 30"WC	<1.3 mA current consumption Compact size 2000V surge protected	Compact size Temperature compensated Rugged	Low power consumption Low pressure range	Minimal zero shift du to clamping effect 5x proof pressure Rugged stainless stee diaphragm
0 - 3	0 - 3	0 - 200	0 - 500	0 - 3	0 - 50
0 - 20K	0 - 5K	0 - 15K	0 - 35K	0 - 5K	0 - 500
4 - 20 mA 0 - 5 VDC 0 - 10 VDC	4 - 20 mA 0 - 5 VDC 0 - 10 VDC 5 - 10 mV/V	1 - 5 VDC	2 mV/V	1 - 5 VDC	4 - 20mA
8 - 30 VDC	9 - 30 VDC	7 - 30 VDC	5 - 15 VDC	7 - 30 VDC	8 - 30 VDC
.50%	.25%	.25%	.25%	.25%	.50%
1/4" NPT (F)	1⁄4" NPT (F)	1⁄4" NPT (F)	7/16 - 20 UNF - 2A	1/4" NPT (F)	1/2" NPT (M)
DIN Plug 43650	1/2" NPT (M), 18 AWG wire, 72"	½" NPT (M), 18 AWG wire, 72"	4 COND, 30 AWG SHLD CABLE 18 (47.5) LG	1/2" NPT (M), 18 AWG wire, 72"	6 pin bayonet
32°F to 180°F	32°F to 180°F	-5°F to 170°F	70°F to 450°F	32°F to 180°F	32°F to 176°F
-40°F to 220°F	-40°F to 185°F	-40°F to 185°F	-65°F to 450°F	-40°F to 185°F	-40°F to 257°F
10 oz	10 oz	24 oz	1.8 oz	10 oz	8 oz
15-5PH SS ≥ 300 PS 316 SS < 300 PSI	I 316 SS	316 SS < 7500 PSI Inconel 718 ≥ 7500 PSI	Inconel 718	316 SS	15-5PH and 304L

AT A GLANCE



■ Blue = silicon sensor ■ Green = strain gage ■ Red = high pressure strain gage

RapidShip (**)

Viatran

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