

# COMPLETE PRESSURE *and* LEVEL MEASUREMENT



# Challenge our Engineering, Manufacturing and Sales Team with your pressure or level application.

For over 50 years Viatran has been solving pressure and level measurement problems in the some of the toughest application environments - highly corrosive media, damaging cyclic pressures, severe shock and vibration. Our transducers and transmitters are an integral part of the industrial world, providing superior performance and dependable pressure data. Choosing the right product for each application is critical.

We have designed pressure sensors for thousands of industrial and process applications. All are available with special pressure fittings, various electrical terminations and corrosion resistant alloys. Our sensors are renown for their rugged, hermetic, all stainless design featuring a complete array of industry approvals and quality certifications.

To insure the highest performing solution, we feature bonded foil strain gage, silicon piezoresistive, ceramic and variable capacitance sensing technologies to best suit each application. Pressure ranges from draft range to 100,000 PSI, with millivolt, voltage, analog and digital outputs address every customer's instrument requirements.

We demonstrate the unique ability to modify a transmitter at a standard cost to meet the customer's special needs. Sensor sizing, electrical and process connections, media compatibility, accuracy and temperature performance is often tailored to each customer and has truly established our company as a "Measurement Solutions Leader" in many markets: Test, Fluid Power, Process, Medical, Sanitary, and Oil & Gas.

# We can solve it!












## APPLICATIONS








Acidizing  
Altitude Chambers  
Ammunition Tests  
Automotive Paint Booths  
Bio Pharmaceuticals  
Ballast Systems  
Ballast Tanks  
Boring Machines  
Boiler Control  
Burst Tests  
Bottling Machines  
Brake Line Test  
Catalytic Converters  
Cooling Towers  
Compressor Surge  
Coiled Tubing  
Die Cast Machines  
Conveyor Systems  
Compactors/Boilers  
Dough Separation  
Dairy Bubblers  
Environmental Chambers  
Emission Sampling  
Exhaust Systems  
Filter Tests  
Extrusion  
Foundries  
Flight Simulators

Furnace Control  
Fuel Test  
Groundwater Monitoring  
Gas Wells  
HVAC Systems  
Heat Exchangers  
Heating/Air Conditioning  
Leak Test  
HTST Balance Tanks  
Irrigation Systems  
Methane Extraction  
Hydraulic Cylinders  
Lake Levels  
Milk Processing  
Injection Molding  
Lift Stations  
Pump Control  
Meter Calibration  
Locomotive Boilers  
Purified Water  
Missile Systems  
Meat Processing  
Reservoir Level  
Nitrogen Blankets  
Metrology  
Semiconductor Polishing  
Paper Winding  
Mine Roof Hydraulics

Stamping Presses  
Power Generation  
Mobile Hydraulics  
Steering Systems  
Rig Safety  
MWD  
Sterilizers  
Rocket Turbines  
Pipe Lines  
Tablet Presses  
Sewage Systems  
Polymer Reactors  
Textile Mills  
Silo Level  
Recycling Equipment  
Truck Assembly  
Space Probes  
Refrigeration Systems  
Valve Control  
Steel Rolling Mills  
Reverse Osmosis  
Water Filtration Systems  
Subsea  
Transmission Test  
Well Cementing  
Tire Testing  
Wind Tunnels  
Wet Wells

MODEL	509	PT 332	570   770   870	970	571	572	548   748   848
APPROVALS	CE   	CE	CE   	CE   	CE   	CE   	CE   
APPLICATIONS	Oil well fracturing and cementing Acid treatment Gravel packaging Well head	Drill tools Oil rigs Oil platforms Downhole unit	Rig safety systems Well head Oil pumping Natural gas pipelines Hazardous locations	Polymer production Oil rigs Shipboard/Marine Wastewater Hazardous locations	Rig safety systems Chemical processing Shipboard/Marine Gas compressors Hazardous locations	Sour gas wells Secondary oil recovery Oil pumping Hazardous locations	Fuel tank level Chemical tank level Gas compressors Chemical processing Hazardous locations
FEATURES BENEFITS	No mounting stress Shock and vibration resistant NACE compliant Non-clogging port	Subminiature design Temperature compensated Lightweight Inconel wetted parts	Hermetically sealed enclosure 316L SS housing Less than 5" height 1.5" diameter < 1.3 mA current consumption available NACE complaint materials available	HART features: - 5:1 rangeability - remote config. - multi-drop network 316 SS housing 1.5" diameter Submersible NACE compliant materials available	Magnetically coupled external controls 5:1 ranging Hermetically sealed 316 SS housing 1.5" diameter < 7" height NACE compliant materials available	40K psi secondary containment vessel Hermetically sealed NACE/API 6A compliant Inconel 718 Magnetically coupled external controls	All welded construction Optional external zero and span adjusts 316L SS wetted parts Ranges down to 20" WC Hazardous locations
STANDARD PSI RANGES Available in: MPa, kgf/cm <sup>2</sup> , et al	0-5,000 thru 0-20,000 psis	0-5,000 thru 0-25,000 psis	0-100 thru 0-100,000 psis/a	0-100 thru 0-100,000 psis/a	0-100 thru 0-100,000 psis/a	0-100 thru 0-20,000 psis/a	0-3 thru 0-5000 psig/s 0-15 thru 0-500 psia 0-15 psiv
STANDARD BAR RANGES	0-350 thru 0-1,400 bars	0-350 thru 0-1,750 bars	0-7 thru 0-7,000 bars/a	0-7 thru 0-7,000 bars/a	0-7 thru 0-7,000 bars/a	0-7 thru 0-1,400 bars/a	0-0.2 thru 0-350 barg/s 0-1 thru 0-35 bara 0-1 barv
FULL SCALE OUTPUT (FSO)	4-20 mA	1.97 mV/V	4-20 mA 0-5 (0-10) Vdc 2 mV/V	4-20 mA HART Digital signal	4-20 mA	4-20 mA	4-20 mA 0-5 (0-10) Vdc 5-10 mV/V
NOMINAL INPUT VOLTAGES	9-28 Vdc	5 Vdc	11.5-30 Vdc 9-30 Vdc 10-15 Vdc	11.5-30 Vdc	11.5-30 Vdc	11.5-30 Vdc	11.5-30 Vdc 9-30 Vdc 10-15 Vdc
ACCURACY [COMBINED ERROR]	≤ ± 0.25%	≤ ± 0.25%	≤ ± 0.15% ≤ ± 0.25% (≥ 20K psi) ≤ ± 0.30% (100 psi)	≤ ± 0.10% (≤ 20K psi) ≤ ± 0.25% (> 20K psi)	≤ ± 0.15% ≤ ± 0.25% (≥ 20K psi) ≤ ± 0.30% (100 psi)	≤ ± 0.25% (150-20K psi) ≤ ± 0.50% (100 psi)	≤ ± 0.15% (> 200psi) ≤ ± 0.25% (≤ 200psi)
STANDARD PRESSURE CONNECTION	WECO 1502 Union WECO 2002 Union optional	7/16-20UNF-2A NPT Male	1/4" NPT Female ≤ 15K psi High pressure tube ≥ 20K psi	1/4" NPT Female ≤ 15K psi High pressure tube ≥ 20K psi	1/4" NPT Female ≤ 15K psi High pressure tube ≥ 20K psi	1/4" NPT Female ≤ 10K psi Autoclave (AE) F250-C ≥ 15K psi	1/4" NPT Female
STANDARD WETTED PARTS	Inconel X750, Inconel 718	Inconel 718	15 -5 PH SS ≤15K psi PH 13-8 Mo SS >20K psi	15 -5 PH SS ≤15K psi PH 13-8 Mo SS >20K psi	15 -5 PH SS ≤15K psi PH 13-8 Mo SS >20K psi	Hastelloy C-276 Inconel 718	316L SS
WEIGHT	5 lbs 8 oz (2.5 kg)	1.8 oz (51 g)	24 oz (680 g)	24 oz (680 g)	24 oz (680 g)	4 lbs. 6 oz (1.9 kg)	10 oz (284 g)










# INDUSTRIAL TEST *and* CONTROL

							
	247   347	100 SERIES	249   349	PT 139	148   248   348	800 SERIES	274   374
APPROVALS		CE		CE		CE	
APPLICATIONS	Hydraulics Pneumatics Test systems Pumps/Compressors Mining Off-road vehicles Water treatment plants	Hydraulic and pneumatic systems Injection molding Ore trucks Cranes	Test stands Jet Engine Brake Hydraulic Pumps/Compressors	Test stands Dynamometers Road test systems Brake test stands	Die casting Stamping presses Rolling mills Hydraulic systems Test stands	Automotive test stands Aerospace Military General industrial Hydraulic systems	Leak test Engine test stands Autoclaves Wind tunnels
FEATURES BENEFITS	DIN connector standard Spike resistant High cycle life Stainless steel construction External zero adjust	Long life, low cost Spike and corrosion resistant Quick calibration Withstands severe environments Temp compensated Surface mount technology	Top mounted, sealed external adjustments Stainless steel construction High accuracy Internal calibration circuit ≤ ± 0.05% linearity available	< 2.5" H, 1"D Temps to 285°F Pressure/vacuum service All welded SST Western regional wiring code option	3X overpressure Stainless steel construction < 1 millisecond response time Multiple connector, port, performance options available	All welded SST ± 0.5%/100°F temperature performance Internal calibration circuit Easy set-up Field proven technology External zero and span adjustments	Fast response 1,000 psid overpressure 3,000 psid optional Low range wet/wet DP mV/V output available Hastelloy wetted parts available
STANDARD PSI RANGES	0-5 thru 0-15,000 psig 0-10 thru 0-100 psia 0-15 psiv	0-15 thru 0-10,000 psig	0-2 thru 0-100K psig/a 0-15 psiv	0-15 thru 0-10,000 psig	0-3 thru 0-15,000 psig 0-200 psia 0-15 psiv	0-5 thru 0-30,000 psig/s/a 0-15 psiv	0-0.5" WCD thru 0-3,000 psid Line Pressure: 1,000 psi
STANDARD BAR RANGES	0-0.35 thru 0-1,000 barg 0-0.7 thru 0-7 bara 0-1 barv	0-1 thru 0-700 barg	0-0.14 thru 0-7,000 barg/s/a 0-1 barv	0-1 thru 0-700 barg	0-0.2 thru 0-1,000 barg 0-14 bara 0-1 barv	0-0.35 thru 0-2,000 barg/s/a 0-1 barv	0-5" WCD thru 0-7 bard Line Pressure: 70 bar
FULL SCALE OUTPUT (FSO)	0-5 (0-10) Vdc 4-20 mA	3 mV/V 0-5 (1-6) Vdc 0-10 (1-11) Vdc 4-20 mA	0-5 (0-10) Vdc 4-20 mA	3 mV/V	2.5-10 mV/V 0-5 (0-10) Vdc 4-20 mA	3 mV/V 0-5 Vdc 0-10 Vdc	0-5 (0-10) Vdc 4-20 mA
NOMINAL INPUT VOLTAGES	10-40 (15-40) Vdc 10-40 Vdc	10 Vdc 11-32 Vdc 16-32 Vdc 14-36 Vdc	9-40 (12-28) Vdc 9-40 Vdc	10 Vdc	10-15 Vdc 9-30 (12-30) Vdc 9-30 Vdc	10 Vdc 24-32 Vdc 24-32 Vdc	10-42 (15-45) Vdc 10-42 Vdc
ACCURACY [COMBINED ERROR]	≤ ± 0.60%	≤ ± 0.50%	≤ ± 0.10% (≤ 5K psi) ≤ ± 0.15% (> 5K psi)	≤ ± 0.50%	≤ ± 0.15% (> 200 psi) ≤ ± 0.25% (≤ 200 psi)	8X2: ≤ ± 0.15% 8X1: ≤ ± 0.25% 8X0: ≤ ± 0.50%	≤ ± 0.20%
STANDARD PRESSURE CONNECTION	1/4" NPT Female	1/8" NPT Female	1/4" NPT Female 0-15K psi High pressure Tube 20K-100K psi	1/8" NPT Female	1/4" NPT Female	1/4" NPT Female	1/4" NPT Female
STANDARD WETTED PARTS	316L SST Buna-N O-ring 0-200 psi	15-5 PH SS	304, 316L SS < 5K psi 15-5 PH SS 5K-15K psi PH 13-8 Mo SS ≥ 20K psi	15-5 PH SS	304, 316 L SST 15-5 PH SS	17-4 PH SS 15-5 PH SS	316 L SS Viton® O-ring
WEIGHT	10 oz (284 g)	5 oz (142 g)	15 oz (425 g)	5 oz (142 g)	10 oz (284 g)	13-17 oz (369-482 g)	56 oz (1.6 kg)

with your pressure or level application. **We can solve it!**



 IDP10	 517   WW517	 360   960	 363	 364   964	 350   351	 PT 375	APPROVALS
							APPROVALS
Wastewater Natural gas processing Food processing Shipboard/Marine	Reservoirs/Dams Ground water wells EPA plant studies Chemical processing Shipboard/Marine	Dairy/Food/Beverage Pharmaceutical/Biotechnology Balance tanks Silo tanks	Sanitary tank level Beverage processing Food/Dairy processing Pharmaceutical processing	Dairy Food/Beverage Pharmaceutical/Biotechnology Balance/Silo tanks	Pharmaceutical Food/Beverage Dairy Paint Confections	Pharmaceutical Medical Food Dairy Industrial	APPLICATIONS
HART DP 30:1 ranging Push button configuration and calibration Local digital indication Exotic wetted materials available	0.87" diameter 316L SS construction O-ring free design All welded transmitter Integral atmospheric reference tube	Less than 1 minute CIP/SIP recovery Flush Hastelloy diaphragm 316L SS, NEMA 4X housing 3:1 ranging Zero and Span adjust Optional display	Flush Hastelloy diaphragm Unique Gortex breathing system Less than 1 minute thermal recovery time All welded SS construction Zero and span adjusts	Standard Hastelloy C-276 diaphragm Accessible electrical conduit connection design Optional LED display Zero and Span adjusts Eliminates daily drift issue	316L SS construction No oil fill Flush sensor CIP/SIP design Exotic material wetted parts available Magnetically coupled external controls (351) 5:1 ranging (351)	Easy set-up Metal to metal seal Flush diaphragm Zero volume pressure port	FEATURES BENEFITS
0-5" WCD thru 0-300 psid	0-2 thru 0-500 psig (40" thru 1155"WC)	0-30" thru 0-750" WCG	0-30" WCG thru 0-500 psig 0-15 thru 0-500 psia 0-15 psiv	0-3 thru 0-500 psig 0-15 thru 0-500 psia 0-15 psiv	350: 0-100 thru 0-1000 psis/a 351: 0-100, 400, 1000 psis/a	0-1,000 thru 0-30,000 psig	STANDARD PSI RANGES Available in: MPa, kgf/cm <sup>2</sup> , et al
0-5" WCD thru 0-20 bard	0-0.14 thru 0-35 barg	0-30" WCG thru 0-2 barg	0-30" WCG thru 0-35 barg 0-1 thru 0 - 35 bara 0-1 barv	0-0.2 thru 0-35 barg 0-1 thru 35 bara 0-1 barv	350: 0-7 thru 0-70 barg/s/a 351: 0-7, 28, 70 barg/s/a	0-70 thru 0-2,000 barg	STANDARD BAR RANGES
1-5 Vdc 4-20 mA 4-20 mA HART Digital Signal	4-20 mA	4-20 mA 4-20 mA HART Digital Signal	4-20 mA	4-20 mA 4-20 mA HART Digital Signal	4-20 mA	3 mV/V 4-20 mA	FULL SCALE OUTPUT (FSO)
9-15.5 Vdc 11.5-42 Vdc 17-42 Vdc	9-30 Vdc	9-30 Vdc (14-30 with display) 11.5-30 Vdc	9-30 Vdc	9-30 Vdc (14-30 with display) 11.5-30 Vdc	350: 10-36 Vdc 351: 9.5-40 Vdc	10 Vdc 16-30 Vdc	NOMINAL INPUT VOLTAGES
≤ ± 0.20% maximum	≤ ± 0.10% (≤ ± 0.25% max)	360: ≤ ± 0.10% 960: ≤ ± 0.15%	≤ ± 0.25%	364: ≤ ± 0.25% 964: ≤ ± 0.25%	≤ ± 0.65%	≤ ± 0.50%	ACCURACY (COMBINED ERROR)
Application specific (Remote seals shown)	5/8" - 18 UNF Female	21 adapter types available	1-1/2" or 2" Tri-Clamp	1-1/2" or 2" Tri-Clamp	1", 1-1/2", 2", 2-1/2" Tri-Clamp	3/4" - 16 UNF - 2B	STANDARD PRESSURE CONNECTION
316L SS	316L SS Tefzel or Polyurethane	Hastelloy C-276	Hastelloy C-276	Hastelloy C-276	316L SS	Inconel 718	STANDARD WETTED PARTS
12 lbs (5.4 kg)	10 oz (284 g)	4 lbs. (1.8kg)	16 oz (454 g)	40 oz (1.1 kg)	350: 16 oz (454 g) 351: 30 oz (850 g)	8 oz (227 g)	WEIGHT

						
SPX 	FFX 	PT 311 CE	IDA SERIES CE	243   343 CE	270 CE	245   345 CE
Chemical processing Oil and gas Polymer plants Hazardous locations	Chemical processing Oil and gas Polymer plants Hazardous locations	Slurries Chemical processing Pulp and paper Polymer plants	General purpose Test stands Dynos High volume usage	General industrial Hydraulics Pneumatics Compressors Off-road vehicle Water treatment	Hostile environments Test stands Dynos Control systems Die casting	Test stands Metrology Laboratory/Research Automotive test systems Semiconductors Caliper testing Dynos
HART features: - 10:1 rangeability - remote config. - multi-drop network NAMUR Output sent directly to DCS or PLC Improved frequency response	Foundation FieldBus Easy hand-held configuration Output sent directly to DCS or PLC Improved frequency response	Flush diaphragm Zero volume pressure port Easy set-up Internal calibration shunt	CANopen available Easy set-up via directional BUS communications SST construction Flush sensor model High accuracy	Low cost Small size Environmentally sealed High cycle life (1,000,000 cycles) Shock resistant Stainless steel construction	Stainless steel construction Spike resistant High accuracy High cycle life Precise pressure measurement DeviceNET available All pressure ranges	≤ ± 0.05% linearity (available) Digitally compensated Small size Fast response RFI/EMI protected External adjustments Stainless steel construction Multiple connector, port, perf. options
0-5 thru 0-72,500 psis/g/a	0-5 thru 0-72,500 psis/g/a	0-15 thru 0-10,000 psig	0-300 thru 0-15,000 psig	0-100 thru 0-15,000 psig	0-15 thru 0-10,000 psig	0-2 thru 0-100,000 psig/a 0-15 psiv
0-0.35 thru 0-5000 barg/s/a	0-0.35 thru 0-5000 barg/s/a	0-1 thru 0-700 barg	0-20 thru 0-1,000 barg	0-7 thru 0-1,400 barg	0-1 thru 0-700 barg	0-0.14 thru 0-7,000 barg/s/a 0-1 barv
4-20 mA HART Digital signal	FOUNDATION FieldBus H1	3 mV/V	3 mV/V 0-5 (1-6) Vdc 0-10 (1-11) Vdc 4-20 mA CANopen	0-5 (0-10) Vdc 4-20 mA	3 mV/V 0-5 (1-6) Vdc 0-10 (1-11) Vdc 4-20 mA DeviceNet	0-5 (0-10) Vdc 4-20 mA
16-30 Vdc	9-24 Vdc	10 Vdc	10 Vdc 10-32 Vdc 15-32 Vdc 10-36 Vdc 18-32 Vdc	10-30 Vdc	10 Vdc 10-36 Vdc 14-36 Vdc 12-36 Vdc 11-25 Vdc	9-30 (13-30) Vdc 9-30 Vdc
2281: ≤ ± 0.25% 2280: ≤ ± 0.5%	2281: ≤ ± 0.25% 2280: ≤ ± 0.5%	≤ ± 0.5%	≤ ± 0.25%	≤ ± 0.65%	≤ ± 0.25%	≤ ± 0.05% (≤ 5Kpsi) ≤ ± 0.15% (> 5Kpsi)
Application specific	Application specific	3/4" -16 UNF-3A	Int. ISO 2281/1-G1/4 Ext. DIN 3852-AG1/4A Flush M18x1.5	1/4" NPT Female	1/4" NPT Male	1/4" NPT Female
15-5 PH SS 17-4 PH SS	15-5 PH SS 17-4 PH SS	17-4 PH SS	15-5 PH SS	15-5 PH SS	15-5 PH SS	316L SST ≤ 5K psi 15-5 ≥ 5K-15K psi PH 13-8 Mo SS ≥ 20K psi
24 oz (680 g)	24 oz (680 g)	5 oz (142 g)	5 oz (142 g)	10 oz (284 g)	8 oz (227 g)	15 oz (425 g)

Challenge Our Engineering, Manufacturing and Sales Team



**LEGACY**  
Product  
Available from  
**DYNISCO**

Note:  
Products Marked as Legacy are  
no longer available from Viatran.  
For replacements, please contact  
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