

**Viatran 811 Hammer Union Pressure Transducer for measuring pump discharge pressure for drilling, fracturing, acidizing, cementing and nitrogen injection.**

- Patented† Design to withstand extreme vibration and abusive impact
- Impervious to Fluid Ingress with patented angled connector base, drain holes, and sealing method
- Easy Access Connector Housing - 77% greater area
- Expanded compensated temperature range
- Improved sealing method for connector pins
- RoHS compliant



### PERFORMANCE

Full Scale Pressure Ranges.....	0-5K, 0-6K, 0-10K, 0-15K, 0-20K PSIS (0-350, 410, 700, 1000, 1400 Bar)
Combined Accuracy (RSS) (Non-Linearity, Hysteresis & Repeatability).....	$\leq \pm 0.25\%$ FSO
Full Scale Output (FSO) .....	$\geq 15$ mV @10 Vdc @70° F
Zero Balance.....	0.0 mV $\pm 1\%$ FSO
Compensated Temperature Range.....	+40°F to 140°F (4°C to 60°C)
Operating Temperature Range.....	-40°F to 185°F (-40°C to 85°C)
Storage Temperature Range.....	-67°F to 302°F (-55°C to 150°C)
Long Term Stability (%FSO) .....	$\leq \pm 0.25\%$ FSO per 6 months
Thermal Effect on Zero .....	$\leq \pm 1\%$ FSO per 100°F Typical
Thermal Effect on Span .....	$\leq \pm 1\%$ FSO per 100°F Typical

### ELECTRICAL

Output Signal .....	$\geq 1.5$ mV/V @70°F
Supply Voltage .....	10 Vdc nominal, 15 Vdc maximum

† Patents.

† US Patents D711266, US 9,607,596 B2

† EU Patent No. 002334250-001

† CN Patent ZL 201330527540.1

# Model 811

## HAMMER UNION PRESSURE TRANSDUCER

### ELECTRICAL (cont.)

Insulation Resistance.....	<5 nS
Response Time.....	<1 millisecond to reach 90% of FSO
Bridge Resistance.....	10K ohms, nominal
Standard Electrical Connection.....	Mates with 6 pin, Hermetic, Box Mount, Shell Size 10, MIL-C-26482 Amphenol type connector

### MECHANICAL

Standard Pressure Port.....	Male hammer union 2 inch #1502
Pressure Cavity Volume .....	Standard: 0.45 cubic inches
Zero Effect from Installation .....	< $\pm$ 0.3% FSO w/200 ft-lbs torque on union #1502
Shock Sensitivity .....	1000 g, 0.5 ms half sine wave pulse shall not cause change in calibration
Proof Pressure .....	1.67X range or 22,500 PSI max
Burst Pressure .....	3 times full scale pressure range, limited by union #1502: 22.5K PSI

### MATERIALS OF CONSTRUCTION

Wetted Materials .....	NACE compliant Inconel 718 wetted material as standard (MR0175/ISO 15156-3:2009(E))
Enclosure Material.....	304 Stainless Steel
Identification .....	Laser marked on body of unit
Weight.....	5.6 lbs. nominal

### OPTIONS

DC .....	Extended Compensated Temperature Range (Cold) -40°F to 140°F (-40°C to 60°C)
DE.....	Shunt Cal Range Calibration Signal...100% FSO $\pm$ 10% by shorting pins E&F Calibration Signal Accuracy...Readings on calibration certificate are within $\pm$ 0.2% FSO of actual Cal signal output
DG .....	Improved temperature compensation ( $\leq \pm$ 0.5% FSO per 100°F Typical)
DH .....	Special Range
DK .....	Special Calibration Shunt Value
DQ .....	Cleaning for Oxygen Service
EA.....	Special Calibration Run
EH.....	Extended Compensated Temperature Range (Hot) +40°F to 180°F (4°C to 82°C)
LW.....	Narrow adapter for banding
NA.....	Carrying handle attached
NH .....	Customer specific identification
NP.....	Protective ring cage
NQ.....	Protective criss-cross cage
PW .....	Calibrate item with meter/display
Z().....	Special connectors

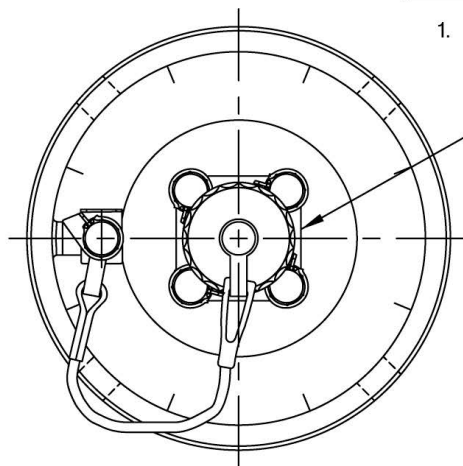


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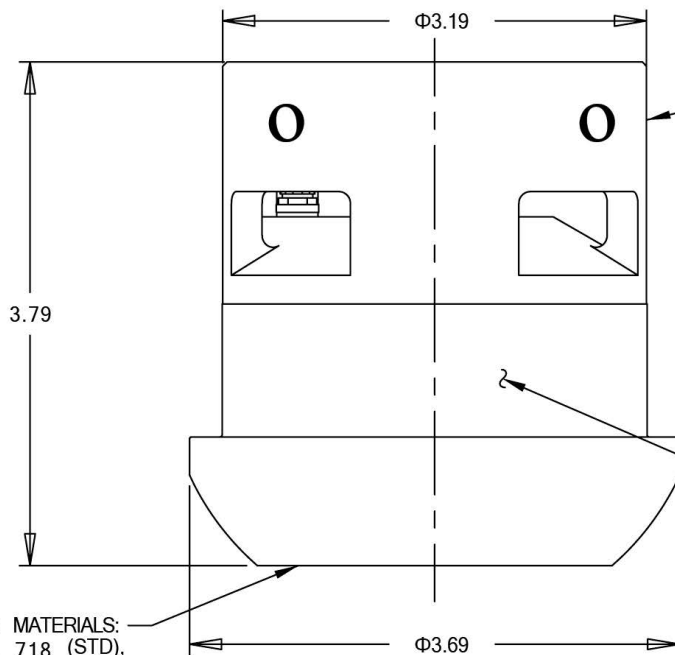
## DIMENSIONAL DATA

### NOTE:

1. ALL DIMENSIONS ARE NOMINAL, IN INCHES AND FOR REFERENCE PURPOSES ONLY.



ELECTRICAL CONNECTION:  
6-PIN BAYONET-TYPE CONNECTOR  
WITH STAINLESS STEEL SHELL  
(MATES WITH CANNON #KPT06F-10-6S  
OR EQUIV, OPTIONALLY AVAILABLE)  
& PROTECTIVE CAP



NON-WETTED MATERIALS:  
304L STAINLESS STEEL

ELECTRICAL CONNECTIONS	
PIN #	FUNCTION
A	+EXCITATION
B	-EXCITATION
C	+SIGNAL
D	-SIGNAL
E	+CAL (DE Option)
F	-CAL (DE Option)

UNIT INFORMATION  
PERMANENTLY MARKED  
ON HOUSING

WETTED MATERIALS:  
INCONEL 718 (STD),  
OTHER MATERIALS  
OPTIONALLY AVAILABLE



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HAMMER UNION PRESSURE TRANSDUCER

## NOTES

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**Viatran**

199 Fire Tower Drive  
Tonawanda, New York 14150 USA

98DS811 REV. B



Hotline: 1-800-688-0030

Phone: 1-716-629-3800

Fax: 1-716-693-9162

Email: [solutions@viatran.com](mailto:solutions@viatran.com)

Web: [www.viatran.com](http://www.viatran.com)

