







Corporate Brochure

# GLOBAL LEADER

In Manufacturing & Innovative Solutions















## **WHO WE ARE**

Tek-Trol Technology Solutions is a global leader in manufacturing and suppling innovative solutions in advanced measurement, automation, and control solutions. We hold our company to the highest of standards and strive to be the preferred partner for industries around the world. No matter the need, Tek-Trol is with you at every stage of your project.

We have carved out a niche for being a reliable and trust-worthy manufacturer of flow, level, temperature and pressure measurement solutions. This has developed overtime by staying true to our core values:

- · Ownership and Accountability
- Integrity
- · Maximize Value
- · Relationship Development
- · Reliable and Trustworthy Business

This dedication allows us to assist in optimizing your company's processes, thereby increasing efficiency, as well as safety and ultimately minimizing costs.





## **FLOW MEASUREMENT**

Tek-Trol's range of Flow Meter monitors mass and volumetric flow of liquids, gases and steam with premium accuracy, high stability and robust operation.





**Tek-Cor 1100A**Coriolis Mass Flow Meter

Service	Liquid and Gas
Wetted Material	316 SS, Hastelloy C
Accuracy	±0.05%, ±0.1%, ±0.2% or ±0.5%
Line Size	3/8" to 24" (10 to 600mm)
Repeatability	± 0.05% (for 0.1% accuracy), ± 0.1% (for 0.2% accuracy), ±0.25% (for 0.5% accuracy) or ± 0.05% (for 0.05% accuracy)
Output Signal	4-20mA and Pulse, Optional: HART, Modbus RS485 or Ethernet
Power Supply	18-28VDC, 85-220VAC
Temperature Limits	Direct Mount: -60°F to 200°F (-50°C to 125°C) Remote Mount: -300°F to 400°F (-180°C to 200°C)
Maximum Pressure	580 to 3600psi (4 to 25MPa)
Process Connection	DIN, ANSI Flanges, NPT, Flare, Tri-Clamp
Display	OLED
Approvals	UL Class I Div I



## **Tek-Clamp 1200A**Ultrasonic Clamp-On Flow Meter

Service	Liquids
Wetted Material	Aluminum Alloy or Plastic Alloy
Accuracy	Better than 1% accuracy
Line Size	1/2" to 200" (15 to 5000mm)
Repeatability	0.2%
Output Signal	Modbus RS485, 4-20mA, Pulse
Power Supply	85 to 264VAC or 8 to 36VDC; Rechargeable nickel metal hydride battery
Temperature Limits	-40 °F to 320 °F (-40 °C to 160 °C)
Measurement Period	0.5 Seconds
Protection Class	IP68, IP65, IP57
Display	LCD with backlight 2 x 20 letters
Approvals	Class I Div II approved (1200A-100EXP)







## **Tek-Vor 1300C**Vortex Flow Meter

Service	Liquid, Gas and Steam
Wetted Material	304 SS, 316 SS
Accuracy	$\pm$ 1% of Reading; For Multivariable Version: Temperature $\pm$ 1 °F; Pressure: 0.75% F.S.
Line Size	1/2" to 12" (15 to 300mm)
Repeatability	0.3% of F.S.
Output Signal	4 to 20mA and Pulse; 4 to 20mA, Pulse and HART; 4 to 20mA, Pulse and RS485 Modbus
Temperature Limits	-40 °F to 302 °F (-40 °C to 150 °C) or -40 °F to 482 °F (-40 °C to 250 °C) or -40 °F to 662 °F (-40 °C to 350 °C)
Maximum Pressure	Limited to Flange Rating
Process Connection	Wafer, CL150 ANSI Flange, CL300 ANSI Flange
Electrical Connection	½" NPT
Diagnostics	Bluetooth
Approvals	CE



## **Tek-Flux 1400A**Electromagnetic Flow Meter

Service	All Conductive Liquids
Wetted Material	Electrode Material: 316 SS or Hastelloy C; Liner Materials: PTFE or Hard Rubber Special liners and electrode avail
Accuracy	±0.5%, ±0.3% Optional
Line Size	½" to 28" (15 to 700mm)
Repeatability	0.15%
Output Signal	4-20mA, Pulse; 4-20mA, Pulse, Modbus RS485; 4-20mA, Pulse, HART
Power Supply	18-36VDC, 85-220VAC
Temperature Limits	Sensor: -4 "F to 158 "F (-20 "C to +70 "C) Converter: -4 "F to 158 "F (-20 "C to +70 "C) "C) Integral Type: 14 "F to 122 "F (-10 "C to +50 "C)
Maximum Pressure	Limited to Flange Rating
Process Connection	150# to 600# ANSI Flange and AWWA Flange
Protection Class	IP68, IP65







#### Tek-Flux 1400B

### Insertion Electromagnetic Flow Meter

Service	All Conductive Liquids
Wetted Material	316 SS, Hastelloy C, PTFE
Accuracy	±1% of span
Line Size	4" to 80" (100 to 2000mm)
Repeatability	±0.2% of Span
Output Signal	4 to 20mA and Pulse
Digital Output	HART or RS-485 Modbus
Power Supply	18 to 60VDC or 80 to 300VAC
Temperature Limits	-20°F to 250°F (-28°C to 120°C)
Maximum Pressure	250psi
Process Connection	1.5" MNPT or 2" Weldolet
Display	16 characters x 2 row LCD, 5 Digit Flow rate and 8 Digit Totalizer
Protection Class	IP66 or IP68



## Tek-Flux 1400C

#### Utility Electromagnetic Flow Meter

Service	Potable (Drinking) Water
Wetted Material	316 SS Electrode; polypropylene liner
Accuracy	±0.5% (Standard); Optional 0.3%
Line Size	½" to 28" (10mm to 700mm)
Repeatability	±0.2% of Span
Output Signal	4-20mA, Pulse, HART Modbus RS485
Power Supply	16 to 60VDC or 80 to 300VAC/DC, Battery Powered
Temperature Limits	Integral: -40 to 250°F (-40 to 120°C); Remote: -40 to 350°F (-40 to 180°C)
Maximum Pressure	150# ANSI or 300# ANSI Flange
Process Connection	Flange
Display	16 characters x 2 row LCD, 5 Digit Flow rate and 8 Digit Totalizer
Protection Class	IP68, IP65
Approval	NSF







### Tek-Thermal 1700B

### Thermal Mass Flow Meter

Service	Air and Nitrogen
Wetted Material	316 SS
Accuracy	±0.5% FS
Line Size	1" to 20" (25 to 500mm)
Digital Signal	4 to 20mA and Pulse (Standard)
Power Supply	13.5 to 42VDC or 85 to 265VAC
Temperature Limits	-40 °F to 302 °F (-40 °C to 150 °C)
Maximum Pressure	232psi
Process Connection	Insertion (NPT)
Display Indication	Mass flow, Volume flow in normal condition, Total flow, Temperature of medium, Velocity
Diagnostics	Bluetooth
Protection Class	IP65



### Tek-DP 1610A

### Single Chamber Orifice Fittings

Service	Liquid, Gas and Steam
Materials	A216 WCB, A216 WCC, A352 LCC, A358 CF8M, A995 Gr4A, A995 Gr6A, Custom materials available
Line Size	2" to 30" (50 to 750mm)
Operating Temperature	As rating of material and flanges fitted
Pressure Rating	ANSI 150# to 2500#
Tap Connection	Two ½" NPT per side standard, 4 pairs available as options
Installation	Vertical or Horizontal
Body Configuration	Flange x Flange, Flange x Weld, Weld x Weld Flanges to FF, RF, and RTJ are available in the following format: ANSI 16.5 or 16.47, Techlok and SPO, Grayloc, API 6A to specific client specification
Line Bore ID Tolerance	In conformance with AGA 3 and ISO-5167 Latest Edition
Eccentricity Repeatability	In conformance with AGA 3 and ISO-5167 Latest Edition
Measurement Standards	ISO 5167, API MPMS14.3.2 (AGA-3)







## **Tek-DP 1610B**Double Chamber Orifice Fitting

Service	Liquid, Gas and Steam
Materials	Body casting: ASTM A216 WCB, WCC ASTM A352 LCC,ASTM A351 CF8M, ASTM A995 Gr.4a, Gr.6a Other materials are available on request
Line Size	2" to 30" (50 to 750mm)
Operating Temperature	Standard -20 °F to 100 °F (-28 °C to 37 °C),
	Optional -40 °F to 1200 °F (-40 °C to 648 °C)
Pressure Rating	ANSI 150# to 1500#
Tap Connection	Two ½" NPT per side standard, 4 pairs available as options
Installation	Vertical or Horizontal
Body Configuration	Flange x Flange, Flange x Weld, Weld x Weld Flanges to FF, RF, and RTJ are available in the following format: ANSI 16.5 or 16.47, Techlok and SPO, Grayloc, API 6A to specific client specification
Eccentricity Repeatability	In conformance with AGA 3 and ISO-5167 Latest Edition
Measurement Standards	ISO 5167, API MPMS14.3.2 (AGA-3)



#### **Tek-DP 1610D** Integral Orifice Assemblies

Service	Liquid, Gas and Steam
Material	316 SS or Hastelloy C
Accuracy	Up to ±0.75%
Line Size	1/2" to 1 1/2"(15mm to 40mm)
Beta Ratio	0.1 to 0.8
Process Connection	Flanged, Weld Neck, Beveled End, Socket, NPTF
Pressure Rating	150# to 900#
Mounting	Direct, Remote
Converter	DP and MVT transmitter available
Approvals	AGA, ISO, ASME







#### **Tek-DP 1610H** Wafer Style Orifice Plate

Service	Liquid, Gas and Steam
Material	304SS, Buna-N gaskets
Accuracy	±0.6% of full-scale Flow
Line Size	½" to 24" (15 to 600mm)
Temperature Limits	-600°F to 2000°F (Dependent on Material and Gasketing)
Pressure Limits	Limited only by pipe and flange rating restrictions (ISO: 300, 600, 900; ANSI: 1500, 2500#)
Process Connection	¼" Female NPT
Pipe Requirements	Refer to Installation Sheet Attached. General Requirements 10D up and 5D down
Bore	Concentric Standard, Eccentric, Quadrant Edge, Segmental, Multi Bore Available
Installation	Standard ANSI Flange, 150# STD (Orifice Flanges Not Required)
Weight	Varies with Line Size and Model

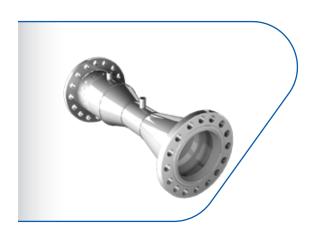


## **Tek-DP 1620A**Cone Meter

Service	Liquid, Gas, Steam and Wet Gas
Material	Inconel, Duplex, 304 or 316 Stainless Steel, Hastelloy C-276, Carbon Steels, Other materials available on request
Accuracy	±0.5% with Calibration
Line Size	1" to 48" (25 to 1200mm)
Repeatability	±0.1% or better
Rangeability	10:1 and greater
Beta Ratio	0.45 through 0.85, Special betas available
Pressure Ratings	150# to 2500#
Process Connection	Flanged, Threaded, Hub or weld-end standard, Others on request
Pressure Taps	¼" to 1"
Pipe Requirements	As per ISO 5167-5. Typically, 0-3D upstream and 0-2D downstream is required
Performance Verification Testing	ISO 5167-5







#### Tek-DP 1640A Venturi Tube Meter

Service	Liquids, Liquid Hydrocarbons, Cryogenics, Natural Gases, Steam
Material	All standard materials available
Line Size	1" to 48" (25 to 1200mm)
Rangeability	10:1 Standard
Beta Ratio	0.45 through 0.85, Special betas available
Operating Temperature	Standard at -20° to 100° F, optional -40° to 1200° F
Pressure Ratings	150# to 2500#
Process Connection	#150 - #2500 RF/RTJ, SO/WN Flanges or Beveled ends
Pressure Taps	¼" to 1"
Installation	Vertical, Horizontal
Assembly Type	Flange, Weld in, Insertion type



**Tek-DP 1650A**DProbar Multiport Self-Averaging Flow Meter

Service	Liquid, Gas, and Steam
Wetted Material	316L SS
Accuracy	±1% at 95% confidence level
Line Size	2" to 72" diameter
Repeatability	0.1%
Temperature Limits	Standard at -20°F to 100°F, optional -40°F to 1200°F
Maximum Pressure	580 to 3600psi (4 to 25MPa)
Process Connection	Flanged; Weld prepared ends; Threaded NPT; Others on request
Transmitter Mounting	Direct or Remote





## **LEVEL MEASUREMENT**

Tek-Trol's level measurement devices offer the right solution for your level measuring requirements.





## **Tek-Flex 4100A**Explosion-Proof Guided Wave Radar Level Transmitter

Service	Liquids, slurries, and solid levels
Wetted Material	316L SS; Hastelloy C; PTFE
Accuracy	$Standard: \pm 0.08^* (\pm 2mm) \text{ (Distance} \leq 10m / 33\text{ ft)}; \pm 0.02\% \text{ of measured distance} \\ \text{ (distance} > 10m / 33\text{ ft)} \\ \text{Interface: } \pm 0.2^* (\pm 5mm) \text{ (Distance} \leq 10m / 33\text{ ft)}; \pm 0.05\% \text{ of measured distance} \\ \text{ (distance} > 10m / 33\text{ ft)}$
Range	Single-Piece or Single-piece fully PTFE coated: 3.28 to 13.12ft (0.6 to 4m); Segmented: 3.28 to 19.69ft (0.6 to 6m); Single Cable: 3.28 to 196.85ft (1 to 60m)
Repeatability	±0.04" (±lmm)
Resolution	0.004" (0.1mm)
Temperature Limit	-58 to +482°F (-50 to +250°C); -58 to +302°F (-50 to 150°C)
Pressure Limit	Single fully PTFE-coated: -14.5 to 580 psig (-1 to 40 barg); Single ceramic process seal system: -14.5 to 1450 psig (-1 to 100 barg)
Output Signal	4 to 20mA or HART output
Power Supply	11.5 to 30VDC; or Flange
Process Connection	Thread, Flange
Enclosure	NEMA 4x
Approvals	CE, Class   Div 1



## **Tek-Flex 4100B**Two-Wire Loop Powered OEM TDR Level Transmitter

Service	Distance, level, volume, and mass of liquids and solids
Wetted Material	316 SS
Accuracy	±1/2" (±10mm) (when distance ≤ 10m/33ft); ±0.1% of measured distance (when distance > 10m/33ft)
Range	Liquids: 65.6'(20m); Solids: 32.8'(10m)
Repeatability	±3/4"(±20mm)
Resolution	1/16"(lmm)
Temperature Limit	-60 to +212°F (-50 to +100°C)
Pressure Limit	-14.5 to 232psig (-1 to 16barg)
Output Signal	4 to 20.5mA
Power Supply	14 to 30VDC
Process Connection	3/4, 1 NPT or 1.5" NPT
Protection Class	IP67
Approvals	CE, EMC







# **Tek-Flex 4100C**Programmable Two-Wire TDR Level Transmitter with HART & Display

Service	Liquids and solids
Wetted Material	316 SS and Kalrez
Accuracy	± 0.4"
Range	Up to 60ft
Temperature Limit	40 to 302°F (-40 to 150°C)
Pressure Limit	-14.5 to 580psi
Output Signal	4 to 20mA with HART (2 wire)
Power Supply	16 to 36VDC
Process Connection	1½" Male NPT or Flange
Electrical Connection	Two ½" NPT
Display	LCD display
Enclosure	NEMA 4X
Protection Class	IP66



**Tek-Flex 4100D**Explosion-Proof Guided Wave Radar Level Transmitter

Service	Liquids, solids, and interface
Wetted Material	316 SS, 304 SS and PTFE
Accuracy	±5mm
Range	60' (18m) Cable; 10' (3m) Rod
Temperature Limit	-40 to 302°F (-40 to 150°C)
Pressure Limit	0 to 870psi (0 to 60bar)
Output Signal	4 to 20mA
Power Supply	16 to 30VDC
Process Connection	1-½" NPT; Optional 2" and 3" 150# ANSI Flange
Electrical Connection	½" NPT
Protection Class	IP67
Approvals	Class I Div I Group A, B, C & D, T3C (CSA)







**Tek-Sound 4200A**Ultrasonic Level Transmitter

Service	Liquids and bulk solids
Wetted Material	PVC
Accuracy	±0.10% of max. range (in lab using 4-20mA current output); ±0.25% of max range (typically in field)
Range	9', 16', 20', 30', 50', 60'
Repeatability	±0.08"
Temperature Limit	$-40^{\circ}$ F to $140^{\circ}$ F ( $-40^{\circ}$ C to $60^{\circ}$ C) continuous operation
Pressure Limit	72.51psi (5bar) max. using high temperature and pressure sensor
Output Signal	RS232 or RS485 or 4 to 20mA
Power Supply	12 to 30VDC, 0.07A max. at 24VDC, R load = (Vs - 6)/24mA
Response Time	Standard unit 2-3 echoes/sec; Fast protocol 10-30 echoes/sec
Electrical Connection	1/2" NPT hole (PVC conduit only)
Enclosure	PVC-94VO or Aluminium
Protection Class	IP68



**Tek-Sound 4200B**Two Wire Ultrasonic Level Transmitter With Display

Service	Liquids
Wetted Material	PTFE
Accuracy	±0.5% or 1.0%FSO
Range	0.5 to 12ft or 1 to 25ft
Resolution	0.019" or 0.039"
Temperature Limit	-40°F to 160°F (-40°C to 71°C)
Pressure Limit	30psi (2bar)
Output Signal	4 to 20mA, 20 to 4mA
Power Supply	12-28VDC
Process Connection	1 ½" NPT or 2" NPT
Electrical Connection	Two, ½" NPT
Enclosure	NEMA 4X
Protection Class	IP65







## Tek-Wave 4300A

## Explosion-Proof Radar Level Transmitter

Service	Liquids and Bulk Solids
Wetted Material	PTFE
Accuracy	±0.1% of Max. Range in Lab Using 4-20mA Current Output
Range	17ft to 100ft
Resolution	0.08" to 0.44"
Temperature Limit	-40°F to 140°F (-40°C to 60°C)
Pressure Limit	72.5psi (5bar) (Without De-coupler)
Output Signal	4 to 20mA with HART
Power Supply	20-35VDC
Response Time	Standard unit 2-3 echoes per sec. std. with less damping 6 echoes/sec; fast protocol unit 10-30 echoes/sec
Electrical Connection	1/2" NPT x 2
Protection Class	IP68
Approvals	FM for Can. & US Explosion Proof Class I, Div.1, Groups B, C, D: Dust-Ignition Proof Enclosure for Class II/III Div. 1, Groups E, F, G.



#### Tek-Wave 4300C

#### Radar Level Transmitter

Service	Solids, Dew, Dust, and Corrosive Liquids	
Wetted Material	Stainless Steel	
Accuracy	±3mm	
Range	90ft (30m)	
Temperature Limit	-40 to 482°F (-40 to 250°C)	
Pressure Limit	-14.50 to 580psi (0.1 to 4MPa)	
Output Signal	4 to 20mA with HART®, Optional Modbus RS485	
Power Supply	16 to 26VDC	
Response Time	About 1 second (depending on parameter setting)	
Process Connection	NPT or Flange	
Electrical Connection	½" NPT (Two)	
Protection Class	IP67	
Approvals	CE	







# **Tek-Hydro 4500A-D**Differential Pressure Level Transmitter

Service	All types of liquids, Gases or Steam
Wetted Material	316L SS; Hastelloy C
Accuracy	± 0.075% of Span
Rangeability	100:1
Range	1.5 in H2O to 1450psi
Stability	±0.1% URL for 12 Months
Output Signal	4 to 20mA DC or HART
Power Supply	12 to 45VDC
Electrical Connection	½" - 14" NPTF Conduit/Epoxy Coated-Aluminium
Process Connection	¼" to 18" NPTF
Fill Fluid	Silicon 200; Neobee
Protection Class	IP67
Approvals	FM, ATEX



# **Tek-Hydro 4500A-G**Gauge Pressure Level Transmitter

Service	All types of liquids, Gases or Steam
Wetted Material	316L SS; Hastelloy C
Accuracy	± 0.075% of Span
Rangeability	100:1
Range	0.21 to 8700psig
Stability	±0.1% URL for 12 Months
Output Signal	4 to 20mA DC or HART
Power Supply	12 to 45VDC
Electrical Connection	1½" - 14" NPTF Conduit/Epoxy Coated-Aluminium
Process Connection	Diaphragm Seal
Fill Fluid	D.C. Silicon 200 (-40 °F to 400 °F)
Protection Class	IP67
Approvals	FM, ATEX







#### Tek-Sub 4800A

#### PTFE Submersible Level Transmitter

Service	Aggressive Liquids	
Wetted Material	PTFE, FKM fluorine rubber, and ceramic wetted materials	
Accuracy	±0.5% FS(max.)	
Range	2.8psig to 15psig (2mH2O to 10.5mH2O)	
Stability	±0.2% FS/year (typ.), ±0.3%FS/year (max.)	
Temperature Limit	PTFE: 32°F to 140°F (0°C to 60°C)	
Output Signal	4 to 20mA, RS485, 0.5 to 4.5VDC	
Power Supply	12 to 36VDC	
Cable	PTFE or Polyurethane	
Response Time	≤10 ms	
Weight	0.91lb	
Protection Class	IP68	



#### Submersible Level Transmitter



Service	Liquids
Wetted Material	304 SS; 316L SS, PTFE, or Polyurethane
Accuracy	±0.5% FS
Range	5psig to 20psig (3.5 mH2O to 14 mH2O), Optional ranges available
Stability	±0.2% FS/year (typ.), ±0.3% FS/year (max.)
Temperature Limit	32 °F to 140 °F (0 °C to 60 °C)
Output Signal	4 to 20mA, RS485, 0.5 to 4.5VDC
Power Supply	12 to 36VDC
Cable	PTFE or Polyurethane
Insulation Resistance	100MΩ/50VDC
Oil Filling	Silicon Oil
Weight	0.9lbs (408g)
Protection Class	IP68







## **Tek-Sub 4800C**Borehole Submersible Level Transmitter

Service	Liquids
Wetted Material	316L SS
Accuracy	0.25% F.S.
Range	10psig to 50psig (7 mH2O to 35 mH2O), Optional ranges available
Stability	±0.2% FS/year (typ.), ±0.3% FS/year (max.)
Temperature Limit	32 °F to 140 °F (0 °C to 60 °C)
Output Signal	4 to 20mA, RS485, 0.5 to 4.5VDC
Power Supply	12 to 36VDC
Cable	PTFE or Polyurethane
Insulation Resistance	100 MΩ/50VDC
Oil Filling	Silicone oil
Weight	0.49lb (225g)



Tek-Sub 4800D

#### Wastewater Submersible Level Transmitter

Service	Muddy Liquids, Thick Slurries and Wastewater
Wetted Material	316 SS
Accuracy	0.5% FS
Range	5psig to 20psig (3.5 mH2O to 14 mH2O), Optional ranges available
Stability	±0.2% FS/year (typ.), ±0.3% FS/year (max.)
Temperature Limit	32°F to 12°F (0°C to 50°C)
Output Signal	4 to 20mA, RS485, 0.5 to 4.5VDC
Power Supply	12 to 36VDC
Cable	PTFE or Polyurethane
Insulation Resistance	100 MΩ/50VDC
Oil Filling	Silicone oil
Weight	8.8lb (4000g)





## **PRESSURE MEASUREMENT**

Our high-quality pressure measuring devices provide stable, reliable and accurate measurements in-process industries that require high-precision.





**Tek-Bar 3110A**Explosion-Proof Differential Pressure Transmitter

Service	Gases, Steam and Liquids
Wetted Material	316 SS
Accuracy	±0.075% of Span
Rangeability	100:1
Range	30" W.C to 300psid
Stability	±0.125% URL for 36 Months
Output Signal	4mA to 20mA or HART®
Power Supply	12 to 45VDC
Electrical Connection	½" NPT Female
Process Connection	1/4" NPT Female
Weight	8lb (Standard); 11lb (SST Housing)
Display	5-digit LCD display
Approvals	FM (Class I Div I)



**Tek-Bar 3110B**Explosion-Proof Piezo Differential Pressure Transmitter

Service	Gases, Steam and Liquids
Wetted Material	Hastelloy C and 316 L SS
Accuracy	±0.075% of Span
Rangeability	100:1
Range	24" W.C. to 1450psid
Stability	±0.125% URL for 36 Months
Output Signal	4 to 20mA with HART® Communication (Optional Modbus RS485 and 1 to 5VDC)
Power Supply	10.5-55VDC
Electrical Connection	½" female NPT conduit
Process Connection	¼" FNPT
Weight	8.81lb (without mounting bracket and process connection adapter)
Display	Integrated LCD display
Approvals	CE, CSA Class I Div I







#### Tek-Bar 3120A

### Explosion-Proof Multifunctional Gauge/Absolute Pressure

Service	Gases, Steam and Liquids
Wetted Material	316 SS
Accuracy	±0.075% of Span
Rangeability	100:1
Range	-14.5 to 8500psig
Stability	±0.125% URL for 36 Months
Output Signal	4mA to 20mA with HART®
Power Supply	12 to 45VDC
Electrical Connection	½" NPT Female
Process Connection	½" NPT Female
Weight	3.74 lb (Standard - excluding options); 6.23 lb (SST Housing- excluding options)
Display	5-digit LCD display
Approvals	FM (Class I Div I)



#### Tek-Bar 3120B

### Explosion-Proof Piezo Pressure Transmitter

Service	Gases, Steam and Liquids
Wetted Material	316L SS and Hastelloy C
Accuracy	±0.075% of F.S. (Optional ± 0.04% F.S.)
Rangeability	40:1
Range	5 to 10000psig (5 to 1500psig)
Stability	±0.2 % URL/5 year
Output Signal	4mA to 20mA with HART® Communication (optional Modbus RS485 and 1-5VDC)
Power Supply	10.5-55VDC (Hart 16.5-55VDC, 250 Ω)
Electrical Connection	½" NPT Female
Process Connection	½" MNPT (other options available)
Weight	3.43 lb (1.55kg)
Display	355° Rotarable display
Approvals	CE, CSA Class I Div I







#### Tek-Bar 3120C

### Tri-Clamp Gauge Pressure Transmitter

Service	Gases, Steam and Liquids
Wetted Material	316L SS
Accuracy	±0.2% F.S.
Rangeability	40:1
Range	5.8psig to 300psig
Stability	±0.2% URL/5 years
Output Signal	4mA to 20mA with HART (Optional Modbus RS485)
Power Supply	10.5-55VDC
Electrical Connection	½" NPT Female
Process Connection	1-½" Tri-Clamp or 2" Tri-Clamp
Weight	Approx. 3.43 lbs (1.55 Kg)
Thermal Effects	355° Rotarable display
Protection Class	General Purpose NEMA 4X
Approval	CE; CSA Class I Div I



## **Tek-Bar 3120S**OEM Pressure Transducer

Service	Gases, Steam and Liquids
Wetted Material	316L SS
Accuracy	±0.5% or 1.0%FSO
Range	-14.7 to 8000psi
Stability	±0.2%FSO/Year
Output Signal	4 to 20mA; 0 to 5VDC; 1 to 5VDC; 0 to 10VDC
Power Supply	10.5-55VDC
Electrical Connection	Connector DIN43650; Hirschman Cable Outlet; Cable Outlet with PVC – Cable; M12X1, 4-Pin
Process Connection	¼" NPT (Male)
Weight	Approx. 185g
Thermal Effects	Temp Coeff-Zero: ±0.75%FSO Temp Coeff-Span: ±0.75%FSO
Protection Class	lp66







**Tek-Bar 3800E**Utilities or Non-Combustible Multivariable Transmitter

Service	Steam, Gases or Liquids	
Wetted Material	316 SS	
Accuracy	± 0.075% FS	
Rangeability	100:1	
Range	24"W.C to 290psid	
Stability	±0.1% FS for 3 years	
Output Signal	2-wire 4 to 20mA, Modbus RS485 or Pulse	
Power Supply	24VDC	
Electrical Connection	1/2" NPT conduit connections	
Process Connection	¼" Female NPT, Relief valve	
Weight	7.27lb (3.3Kg)	
Fill Fluid	Silicone Oil or Fluorinated Oil	
Protection Class	IP67	



**Tek-Bar 3800XP**Explosion-Proof Multivariable Transmitter / Flow Computer

Service	Gas, Liquids or Steam
Display	128 x 65 backlight LCD display; User programmable scroll list and menus
Keypad	4 IR sensors through glass key input. (hazardous area isolation method)
Processor	32 Bit
Program Memory	4 MB of flash memory
Data Memory	2 MB Static Random-Access Memory (SRAM)
Diagnostic	AGA 10 Speed of Sound (Comparison with GC SOS Prediction)
Power Supply	10VDC to 30VDC
Super Compressibility	(Fpv) AGA 8 Gross-1992; AGA 8 Detail-1992; AGA 8 Short-1988; NX-19; NX-19 Analysis; GERG (ISSN 0178-9414-2004/8 - European Gas Research Group)
Volume Correction Factors	Consistent with API 2540/ASTM D1250-80/IP 200; 5/6 A/B; 23/24 A/B; 53/54 A/B; 6/24/54 C; CH 11.1 2004; Note: natural gas liquids (NGL) and liquefied petroleum gases (LPG): OLD 23/24, OLD 53/54; (Note: Table E is new standard to replace the Older version 23/24)
Enclosure Rating	NEMA 4X, IP67
Approvals	CSA, Class I Div I, FCC, AGA 3, ANSI, API, ISO 5167







#### Tek-Bar 3800XH

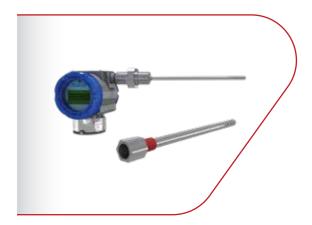
#### Explosion- Proof Multivariable Transmitter

Service	Steam, Gases or Liquid
Wetted Material	316L SS, Hastelloy® C-2762, Monel® 400 3, Tantalum, Gold-plated 316L SS, Gold-plated Hastelloy® C-276, Gold-plated Monel® 400
Accuracy	Differential Pressure: up to ±0.0400%; Static Pressure: up to ±0.0375%; Temperature: up to 0.2°C; Mass Flow: up to 0.6%; Totalizer: up to 0.4%
Rangeability	400:1
Range	Differential Pressure: -25 to 2000" H20 Static Pressure: 0 to 1500psia and -14.7 to 4500psig
Output Signal	Two-wire, 4 to 20mA (HART & DE Transmitters only) Tek-Trol DE, HART 7 and Modbus protocol Modbus Model: RS-485 Half duplex communication interface; All transmitters, irrespective of protocol have polarity insensitive connection
Power Supply	HART Models: 10.8 to 42.4VDC, DE Models: 15V to 42.4VDC, Modbus (RS485), Models: 9.5 to 30VDC
Electrical Connection	½" NPT, M20
Process Connection	¼"- NPT or ½"- NPT with adapter
Weight	8.3 pounds (3.8kg) with Aluminum housing
Fill Fluid	Silicone Oil DC200, Silicone Oil 704, NEOBEE® M-20 or CTFE (Chlorotrifluoroethylene)
Mounting	Can be mounted in virtually any position using the standard mounting bracket, bracket is designed to mount on 2° (50mm) vertical or horizontal pipe
Approvals	ATEX, CSA, FM, IECEx, NEPSI

## **TEMPERATURE MEASUREMENT**

Tek-Trol's Temperature measurement devices provides accurate measurement of temperature even in the most challenging conditions.





#### Tek-Temp 2100A

#### Explosion-Proof Temperature Transmitter

Service	Liquid and Gases
Wetted Material	Epoxy Coated Aluminum
Accuracy	± 0.03% of F. S
Range	RTD: -328 to 1202 °F (-200 to 650 °C) Thermocouple: -328 to 2462 °F (-200 to 1350 °C)
Repeatability	±0.05% of span
Output Signal	Two wire 4 to 20mA, Digital Process, Digital Process valve superimposed on 4 to 20mA signal, available to any host that conforms to the HART protocol
Power Supply	12 to 45VDC
Ambient Temperature Limits	-40 °F to 185 °F (-40 °C to 85 °C) -22 °F to 176 °F (-30 °C to 80 °C)
Power Supply Effect	Less than ±0.005% of span per Volt
Electrical Connection	½" to 14" NPT (w/M 3.5)
Protection Class	IP67
Approvals	FM or FMC Explosion-proof (Class I/II/II, Div. ½, Group A-D/E-G)





### **SOLUTION**

Diagnostic systems that provide real-time validation and monitoring.





#### **TEK-DPro Flow Solution**

Differential Pressure (DP) devices are used widely in many applications and form the largest installed base of all flow measurement devices. DP flow meter designs are simple and sturdy and are therefore reliable. Tek-Trol offers a comprehensive range of DP flow meters-not just the primary elements but also the secondary transmitters and state-of-theart DP flow monitoring and validation system, popularly known as the TEK-DPro Flow Solutions.

- · Supports all differential pressure flow meters
- · Supports all smart pressure differential transmitters
- · Management and simulation of captured data points
- · Enhanced data logging functionality, both on-demand or time-based
- · Graphical process variable trending views
- · Simultaneously connect to multiple primary and secondary devices
- · Ideal tool for evaluating multiple devices simultaneously
- · Fault in Repeatability Test Interpretation
- · Fault in Control Chart Interpretation
- · Fault in Composition Comparison



#### Steam Quality Meter

Unique steam quality meter with two proven technologies provides accurate measurement of steam and steam quality. The meter produces a reliable steam quality (dryness) measurement and steam mass flow rate reading in saturated steam service. It can also measure real-time steam quality in homogenous steam flow.

- · Provide fluid density, volume, and mass flow measurement
- · Predicts gas volume flow without knowing fluid density
- · Provide a reliable steam quality (steam dryness)
- · Calculate density of changing gas mixtures
- · Measure homogenous flow (both volume and density)
- Mass flow equations for additional diagnostic information and verification
- · Reduces initial cost, installation cost and cost-of ownership over the lifetime of the instrument
- · Easy to install and commission







#### **IoT Monitoring Solution**

Internet of Things (IoT) is Tek-Trol LLC's one stop solution that helps connect your products, plants, systems remotely, enabling you to tackle the wealth of data achieved with advanced analytics. IoT connects real things to the digital world and provides powerful industry applications and digital services to help drive business success. It automates, optimizes and future-proofs systems to achieve new heights of digital performance.

- · Elasticity and Scale up/down
- · Self-service provisioning and automatic deprovisioning
- · Application programming interfaces (APIs)
- · Billing and metering of service usage in a pay-as-you-go model
- · Performance monitoring and measuring
- Security



#### **Wet Gas**

Wet gas flow is defined as a gas flow contains a small amount of liquid. It is an adverse flow condition for all flow meters and incorporates a wide range of flow conditions, where different operators require different wet gas meter capabilities. Tek-Trol's Wet Gas Metering range is uniquely positioned to provide the operator with the optimum solution for wet-gas flow measurement, which is significantly more complicated than measuring the single-phase gas flow.

- · Operator friendly
- · Low maintenance
- · Predict liquid loading value
- · Uses wet gas correction algorithm
- · Simple and robust

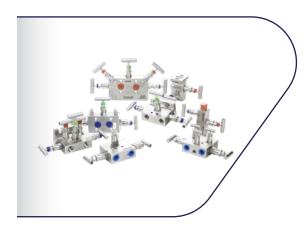




## **ACCESSORIES**

Our wide range of instrumentation accessories, products and configurations for optimum efficiency and durability for all industrial applications.





## **Tek-Manifold 7500A**Manifold

Service	Liquids, Gases or Steam
Material	Construction: 316 SS; Stem Packing: PTFE
Temperature Limits	450°F (232°C)
Pressure	6000psi(413bar) and 10000psi (680bar)
Process Connection	Flange × Flange, Flange × ½" FNPT, Male × Female ½" NPT

## INDICATOR/CONTROLLER

A full line of digital panel meters, indicators and control instrumentation for process indication and control





#### Tek-LCD 7800A

#### Loop-Powered Process and Level Indicator

Display	Feet & Inches display: 0.60" (0.04ft) high, 0 to 699 FT 11 15/16 IN with 1/16 or 1/8 fraction display
Display Update Rate	Ambient > -13°F: 2 Updates/Second Ambient < -13°F: 1 Update/5 Seconds
Over Range	Level display flashes to 699 FT 11 15/16 IN Volume display flashes 9999999 if over range
Under Range	Display ¬flashes -999999
Recalibration	Recommended at least every 12 months
Normal Mode Rejection	64 dB at 50/60 Hz
Operating Temperature Range	-40°F to 167°F (-40°C to 75°C)
Storage Temperature	-40°F to 167°F (-40°C to 75°C)
Relative Humidity	0 to 90% non-condensing
Connections	Screw terminals accept 12 to 22 AWG wire
Weight	1.65lbs (26.4oz, 0.75kg)
Enclosure	NEMA 4X
Protection Class	IP65







## **Tek-LCD 7800B**Explosion-Proof Loop-Powered Indicators

Display	Five digits (-9999 to 99999) 0.70" (0.05ft) high, 7-segment, automatic lead zero
	blanking
D: 1 11 1 . D .	Ambient > -13°F: 2 Updates/Second
Display Update Rate	Ambient < -13°F: 1 Update/5 Seconds
Over Range	Display flashes 999999
Under Range	Display flashes -99999
Recalibration	Recommended at least every 12 months
Normal Mode Rejection	64 dB at 50/60 Hz
Operating Temperature Range	-40°F to 167°F (-40°C to 75°C)
Storage Temperature	-40°F to 167°F(-40°C to 75°C)
Relative Humidity	0 to 90% non-condensing
Connections	Screw terminals accept 12 to 22 AWG wire
Weight	5.00lbs (80 oz, 2.27 kg)
Enclosure	NEMA 4X
Approvals	FM, CSA, ATEX, CE



**Tek-LCD 7800C**Panel Mount Loop-Powered Process Indicators

Display	Five Digits Top Display (-9999 to 99999)
Display Update Rate	Ambient > -13°F: 2 Updates/Second
	Ambient < -13°F: 1 Update/5 Seconds
Over Range	Display flashes 99999
Under Range	Display flashes -9999
Recalibration	Recommended at least every 12 months
Normal Mode Rejection	64 dB at 50/60 Hz
O	-40°F to 167°F (-40°C to 75°C) for safe area products
Operating Temperature Range	-40°F to 158°F (-40 to 70°C) for hazardous area products
Storage Temperature	-40°F to 185°F (-40 to 85°C)
Relative Humidity	0 to 90% non-condensing
Connections	Screw terminals accept 12 to 22 AWG wire
Enclosure	NEMA 4X
Protection Class	IP65







#### Tek-Batch 7900A

### Analog Input Batch Controller

Display	Upper display: 0.04ft (0.60") high. Lower display: 0.03ft (0.46") high. Both are 6 digits (-99999 to 999999), red LEDs
Display Update Rate	5/second (200 ms)
Over Range	Display flashes 999999
Under Range	Display flashes -99999
Recalibration	Recommended at least every 12 months
Normal Mode Rejection	Greater than 60 dB at 50/60 Hz (PD8-6210) Isolation: 4 kV input/output-to-power line; 500 V input-to-output or output-to-P+ supply
Operating Temperature Range	-40°F to 140°F (-40°C to 60°C)
Connections	Removable screw terminal blocks accept 12 to 22 AWG wire, RJ45 for external relays, digital I/O, and serial communication adapters
Weight	16.0lbs (7.26kg)
Enclosure	NEMA 4X
Protection Class	IP68



# **Tek-Batch 7900B** Large Display Batcher

	UL/C-UL Listed (File No. E192404), CE Compliant, Type: 2 lines of 20 characters,
Display	Types: Backlight LCD, Character Size: 0.35" (8.3mm) nominal user programma-
	ble label descriptors and units of measure
Display Update Rate	4 updates/sec
Range	Voltage: 0-10VDC, 0-5VDC, 1-5VDC, Current: 4 to 20mA, 0 to 20mA
Resolution	16 bit
Operating Temperature Range	32°F to 122°F (0°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Relative Humidity	0-95% Non-condensing
Materials	Plastic, UL94V-O, Flame retardant Bezel: Textured per matt finish
Enclosure	NEMA 4X
Calibration	Software calibration (no trimmers) and auto-zero continuously







#### Tek-FCA 8000A Field Mount Flow Computer

Service	Liquid, Gas, Steam
Diaphragm Material	316 SS or Hastelloy C
Accuracy	Accuracy: DP linear mode: ±0.075% F.S. (Optional enhanced accuracy of ±0.065%, ±0.04%); Static Pressure: ±0.075% F.S. (Optional enhanced accuracy of ±0.065, ±0.04%); Temperature effect on Differential Pressure: ±0.03% of F.S.
Range	Differential Pressure/ Static Pressure: 150" - 400" in H2O up to 2000psi
Stability	Process Temperature: ±0.25°C/month max; Static and Differential Pressure: ±0.05% URL/Year
Input Signals	4-20mA (Flow, Pressure), Pulse, Frequency RTD (Ohm), BACnet
Output Signal	Analog: Three 4 to 20mA A(Volumetric ow, mass flow, density, pressure, temperature) Alarm: Solid state relay, 40VDC Totalizer Pulse: 50 millisecond pulse, 40VDC Volumetric or Loop Powered Mass: One analog, one totalizer pulse, HART
Communication	HART, Modbus, Ethernet or BACnet
Power Supply	12-36VDC, 300mA, 9W max. or 100-240VAC 50/60Hz
Electrical Connection	½" and ¾" NPT conduit connections
Process Connection	1/4" NPT on flanges or manifold mount
Operating Temperature	-40 to 140°F (-40 to 60°C)
Display	2 line x 16 character lcd alphanumeric digital display, six push buttons for full field configuration, mounted in 90° intervals for better viewing
Approvals	FM, EMC, ATEX, IECEx



## NEMA 4X Field Mount Flow Computer



Display	Type: 2 lines of 20 characters, Types: Backlight LCD, OLED and VFD ordering options Character Size: 0.35"(8.3mm) nominal user programmable label descriptors and units of measure
Display Update Rate	4 updates/sec
Range	Voltage: 0-10VDC, 0-5VDC, 1-5VDC; Current: 4-20mA, 0-20mA, 4-20mA stacked, 0-20mA stacked
Resolution	16 bit
Operating Temperature Range	68°F to 131°F (20°C to 55°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Relative Humidity	0-95% Non-condensing
Materials	Aluminum
Enclosure	NEMA 4X
Calibration	Operator assisted learn mode
Approvals	UL, CSA, VDE





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