



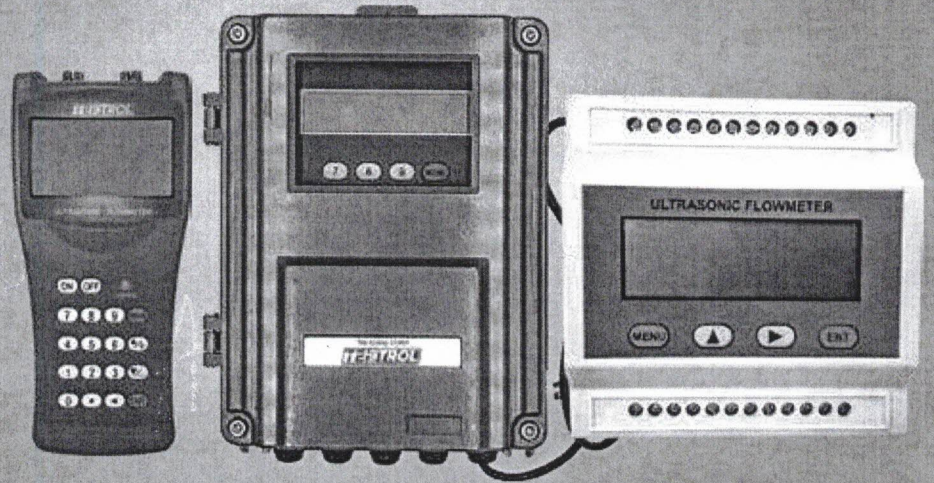
FLOW



Technology Solutions

# Ultrasonic Clamp-On Flow Meter

## Tek-Clamp 1200A



### 1 FEATURES

- Better than  $\pm 1.0\%$  accuracy
- Pipe diameters from  $\frac{1}{2}$ " to 28"
- Protection class:  
IP65 (Tek-Clamp 1200A-100F1),  
IP57 (Tek-Clamp 1200A-100M)
- 4 x 4 key tactile-feedback membrane keypad
- Power supply AC 85-264 V or isolation DC 8-36 VDC
- LCD with backlight 2 x 20 letters

### 3 APPLICATIONS

- Power plants
- Water, wastewater treatment plants
- Mining and metallurgy plants
- Petroleum process monitoring and control
- Chemical process monitoring and control

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### 2 SPECIFICATION

| Parameters              |                   | Specification  |
|-------------------------|-------------------|--|
| Accuracy                |                   | $\pm 1\%$ of Reading   |
| Velocity                |                   | $\pm 0.03$ to $\pm 100$ ft/s ( $\pm 0.01$ to $\pm 30$ m/s)   |
| Repeatability           |                   | 0.2%   |
| Measurement Period      |                   | 0.5 Seconds  |
| Measurement Principle   |                   | Transit-time measurement principle   |
| Display                 |                   | LCD with backlight 2 x 20 letters  |
| Main Unit               | Output            | 100F1 Modbus RS485 4-20 mA, Pulse  |
|                         |                   | 100M Modbus RS485 4-20 mA, Pulse   |
|                         | Input             | 100H None  |
|                         |                   | Two channels three wire system PT100 platinum resistor input loop. For BTV process monitoring  |
| Other functions         |                   | Automatically stores the memory of the positive, negative, net totalizer flow rate and heat quantity of the last 512 days, 128 months, 10 years  |
| Power                   | 100F1             | 85 to 264 VAC or 8 to 36 VDC   |
|                         | 100M              | 8 to 36 VDC  |
|                         | 100H              | Rechargeable nickel metal hydride battery  |
| Power Consumption       |                   | Less than 1.5W   |
| Environment Temperature |                   | -22 °F to 176 °F (-30 °C to 80 °C)   |
| Environment Humidity    |                   | 85% RH   |
| Protection Class        |                   | IP65 (Tek-Clamp 1200A-100F1)<br>IP57 (Tek-Clamp 1200A-100M and 1200A-100H)   |
| Transducers             | Clamp-On          | S2-type: for pipe size $\frac{1}{2}$ "- 4" (DN0.04-DN0.33 ft)<br>M2-type: for pipe size 2"- 28" (DN0.16-DN2.33 ft)<br>HS-type: for pipe size $\frac{1}{2}$ "- 4" (DN0.04-DN0.33 ft)<br>HM-type: for pipe size 2"- 28" (DN0.16-DN2.33 ft)                         |
|                         | Protection Class  | IP68, can work in water with depths less than 10' (3 m)  |
|                         | Types             | Virtually all commonly used clean liquids. Liquids with small quantity of tiny particles may also be applicable. Particle size should be less than 75 $\mu$ m, particle concentration less than 20,000 ppm. Liquids should contain no or very minor air bubbles. |
|                         | Liquids           | Process Temperature<br>-40 °F to 320 °F (-40 °C to 160 °C)   |
| Pipe                    | Pipe Material     | All metals, most plastics, fiber glass, etc.   |
|                         | Pipe Size         | $\frac{1}{2}$ " - 28" (DN 0.04 ft-2.33 ft)   |
|                         | Pipe Straight Run | More than 10 D for upstream, more than 5 D for downstream, 30 D if a pump is near upstream, where D is pipe diameter.  |