



# TS30A, 3"

## Anodized Aluminum, Electronic

- Only two moving parts
- No metal to metal contact in chamber or bearings
- Internal pulser = Gland-less meter design
- Patented 'Wave Form' oval gear design
- Low differential pressure for maximum flow

### TS30AW04AATU for remote electronic register

Depending upon register or controller model, the pulser compartment in flow sensor front cover holds the sensor (pulser), and either:

- A. TBB = Terminal Block Board
- B. SCL = Scaler/Calibrator/Linearizer

### Specifications

- **Nominal Capacity with standard LV rotors**


To 1500 SSU visc. : <b>200 GPM</b>	} NTEP 5:1 turn-down OIML 10:1 turn-down Industrial to 30:1 turn-down
To 300 cP viscosity : <b>760 lpm</b>	
To 300 cP viscosity : <b>45 m<sup>3</sup>/h</b>	
- **Pressure Rating**
  - Meter & Strainer : 400 PSI at 100°F = 28 BAR at 40°C
  - Air Elim & Valves : 150 PSI at 100°F = 10 BAR at 40°C
- **Temperature Rating** *See note under Signal Conditioners*
  - Design W Assy. : -40°F to +257°F = -40°C to +125°C
  - ATEX listing : -4°F to +140°F = -20°C to +60°C
  - Design F Assy : Same, *subject to register temperature limits!*
- **Viscosity**
  - With LV rotors : 100% capacity to 1,500 SSU (300 cP).
  - With HV rotors : 100% capacity to 5,000 SSU (1000 cP),  
reduced capacity to 1,500,000 SSU (350,000 cP).
- **3" Connections** Bolted companion flanges with NPT or BSP port.
  - Optional : Bolted welding flanges, anodized aluminum
  - Bolted welding flanges, carbon steel
  - Bolted 150# RF ANSI adaptors, carbon steel
- **Materials** **100% Non-Ferrous**
  - Case : Anodized aluminum
  - Gears : PPS with carbon bearings, Teflon™ bearings opt.
  - Posts : HC303SS
  - Seals : Viton™ standard, Teflon™ optional.
  - Flanges : Anodized aluminum std., carbon steel optional.
- **Pulser** : **Hall Effect Quadrature**,  
5V reg or 6-12V non-reg; pls consult for 24V DC.
- **K Factor** : Nominal 275 PPG (72.6 ppl) on 1 cP viscosity,  
Opt. with SCL : EL0300-3-13F = 100 PPG (26.5 ppl)  
EL0300-3-18F = 10 PPL (37.85 PPG)

### Meter Performance

**Linearity** Over 5:1 turn-down from max. capacity: ±0.175%  
Over 10:1 turn-down from max. capacity: ±0.25%  
Over 30:1 turn-down from max. capacity: ±0.5%

**Repeatability** 0.05% or better under constant conditions

**Approvals** Custody Transfer approvals are liquid specific.  
W&M approval in the US, Canada\* & EU\*  
\* Canada & EU: W&M approval of pulser is pending.

- **Flow Meter** CE mark.
- **Pulser & SCL** **Intrinsically Safe**, UL & cUL listed,  
**SCL also EEx ia ATEX**  
**when powered through approved barrier.**
- **Pulser encl.**  II 2G Ex d IIA T4, -20°C <Ta<+60°C,  
ATEX, IEC Ex & IP65

### Registration, Signals & Accessories

- **Electronic registers:**  
Tuthill electronic flow meters will support most common electronic registers & controllers. Available through Tuthill:
    - **ELNC** W&M register for stationary service
    - **EMR<sup>3</sup>** W&M register for stationary or truck service
    - **PC58** Totalizer/Rate meter (non-W&M)
  - **Signal Conditioners:**
    - **EL0300** SCL Scaler, Calibrator and/or Linearizer (see FPP261).
    - **EL6630** PIA-300 amplifier for remote register (to 2,500' = 750 m)
    - **PC58** with optional 4-20 mA signal or multi-point calibration.
- NOTE:** *If EL0300 is used in place of EL0304, max liquid temperature = 185°F (85°C). For higher temperatures, mount remote from flow meter in a separate encl.*
- **Accessories**  
Inlet strainer for flow meter protection, standard or High Capacity.  
Air eliminator mounted on strainer  
Backpressure valve for enhanced air elimination  
Air Check Valve on flow meter outlet side  
Electronic preset & system security valves (max. 50 cSt viscosity)

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ISO 9001:2000 Certified

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