



TS10A, 1"

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

Specifications

- **Nominal Capacity with standard LV rotors**

To 1500 SSU visc. :	40 GPM	} NTEP 5:1 turn-down Industrial to 30:1 turn-down
To 300 cP viscosity :	150 lpm	
To 300 cP viscosity :	9 m³/h	
- **Pressure Rating**
 - Meter & Strainer** : 400 PSI at 100°F = 28 BAR at 40°C
 - Air Elim & Valve** : 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).
- **1" Connections** Bolted companion flanges with NPT or BSP port.
Optional : Bolted welding flanges, anodized aluminum
- **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 1728 PPG (456.5 ppl) on 1 cP viscosity,
Opt. with SCL : EL0300-3-13B = 100 PPG (26.5 ppl)
EL0300-3-18B = 10 PPL (37.85 PPG)


TS10AW04AATU 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

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.

- **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 <T_a<+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
 - **EMR³** W&M register for stationary or truck service
 - **PC58** Totalizer/Rate meter (non-W&M)
 - **Signal Conditioners:**
 - **EL0300** SCL Scaler, Calibrator and/or Linearizer.
 - **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 liquid temperatures, these components must be mounted remote from the flow meter in a separate enclosure.*
- **Accessories** If strainer, air eliminator and/or preset valve are required, please see model TS15A.
1/10 liter register, 10 PPL, 100 PPL

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