



TS20AF63AA1XET428

Flow meter with EMR³ register (temperature compensation), Strainer, Air Eliminator, and Solenoid Preset valve

TS20A, 2"

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. :	150 GPM	} NTEP 5:1 turn-down OIML 10:1 turn-down Industrial to 30:1 turn-down
To 300 cP viscosity :	570 lpm	
To 300 cP viscosity :	34 m³/h	
- **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**

W Assembly :	See note under Signal Conditioners
ATEX listing :	-40°F to +257°F = -40°C to +125°C
F Assembly :	-4°F to +140°F = -20°C to +60°C
	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).
- **2" 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 395 PPG (104.4 ppl) on 1 cP viscosity,
Opt. with SCL : EL0300-3-13E = 100 PPG (26.5 ppl)
EL0300-3-18E = 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
 - **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 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

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ISO 9001:2000 Certified

