



# TM03A/TM03D, 3/8"

## Anodized Aluminum / Stainless Steel

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

### Specifications

- **Nominal Capacity on 1 cSt viscosity with 10:1 turndown:**  
3.0 GPM = 11 lpm  
180 GPH = 680 lph
- **Pressure Rating at 100°F (38°C), with 3:1 Safety Factor:**  
TM03A : 1500 PSI = 103 BAR  
TM03D : 1500 PSI = 103 BAR
- **Temperature Rating:**  
**Design :** -40°F/+300°F = -40°C to +150°C  
*Temperature ratings under UL & ATEX listings may differ.  
See register specifications for temperature range rating for electronics.*
- **Connections:**  
3/8" ports in meter case, FNPT standard, FBSP optional.
- **Materials:**  
**TM03A** Case : Hardcoat anodized aluminum  
Seal : Viton™ standard, Teflon™ optional  
**TM03D** Case : 316 Stainless Steel  
Seal : Teflon™ standard.  
Posts : 316SS Hard Chrome coated  
Gears Std. : PPS (polyphenylene sulfide resin), SS optional for TM03D
- **Pulsers:** Hall Effect or Reed Switch (for battery powered registers)
- **Nominal Pulse Resolution:**

	On 1 cSt viscosity	On 100 cSt viscosity
Hall Effect:	±2800 PPG (740 ppl)	±2660 PPG (703 ppl)
Reed Switch:	±700 PPG (185 ppl)	±665 PPG (176 ppl)



Flow Sensor without display



With CC56 register in NEMA 4X (= water & dust proof) enclosure



With CC56 register in NEMA 7/4X (= explosion & water proof) enclosure

### Meter Performance

**Linearity\*** Over 10:1 turn-down from nominal capacity: ±1.0%  
with electronic enhancements: ±0.5%

\* This flow meter will operate with up to 30:1 turn-down. However, extended operating range, will result in greater flow meter error at the low end.

**Repeatability** 0.5% under constant conditions

### Approvals

- **Flow Meter** CE mark
- **Pulsers** UL, cUL & ATEX listed; Intrinsically Safe when powered through a UL or ATEX listed barrier with appropriate rating.

### Optional Registration, Signals & Accessories

- **Registers, Totalizers & Batch Controllers**  
**CC56** Battery powered register, NEMA 4X or NEMA 7/4X  
**ELNC** AC and DC, NEMA 4X  
**PC58** DC, Totalizer/Rate Meter  
**PDB180** AC or DC batch controller, opt. 4-20 mA signal  
**EMR<sup>3</sup>** DC, register/preset, serial port for PC interface, optional with temperature compensation
- **Signal Conditioners:**  
**EL6630** PIA-300, Pulse Isolator, Amplifier & Splitter, with sinking & sourcing output signal.  
**EL0410-7** SCL, Scaler, Calibrator and/or Linearizer for EMR<sup>3</sup> please consult for selection & pricing.

**Tuthill Transfer Systems** Phone: 800-634-2695  
8825 Aviation Drive, Fax: 800-866-4861  
Fort Wayne, IN 46809 USA E-mail: fillrite@tuthill.com



ISO 9001:2000 Certified

International offices:	Phone	Fax
Europe, Middle East & Africa - Belgium Office	+32 (10) 22 83 34	+32 (10) 22 83 38
Europe, Middle East & Africa - UK Office	+44 (115) 932-5226	+44 (115) 932-2526
Mexico (North)	+52 (81) 8303-0025	+52 (81) 8303-6334
Mexico (South)/Caribbean/Centr. America	+52 (55) 5370-2626	+52 (55) 5370-0602
South America	+54 (11) 4116-2830	+54 (11) 4116-2835
Australia/Pacific Rim	+61 (3) 9726-2900	+61 (3) 9725-2663
China	+86 (21) 6917-1999	+86 (21) 6917-2162

