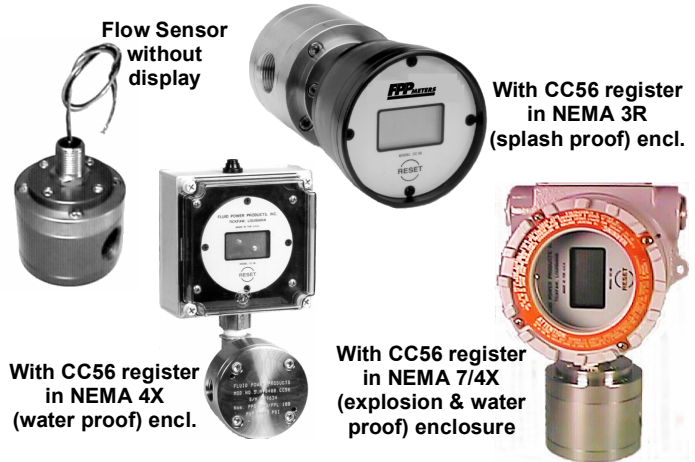


TUTHILL



Photos are representative of TM Series, not specific to TM02D model.

TM03A & TM03D

TM03A Anodized Aluminum

TM03D 316 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

= **Low Cost of Ownership!**

Specifications

- **Nominal Capacity on 1 cSt viscosity with 10:1 turndown:**

3.0 GPM	=	11.4 lpm
180 GPH	=	680 lph
- **Pressure Rating at 100°F (38°C), with 3:1 Safety Factor:**

TM03A	:	400 PSI	=	28 BAR
TM03D	:	400 PSI	=	28 BAR
		Opt. 1500 PSI	=	103 BAR (code K)
- **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.
 3/8" NPT x 1/2" 150# RF ANSI (floating flange) adaptors optional.
- **Materials:**

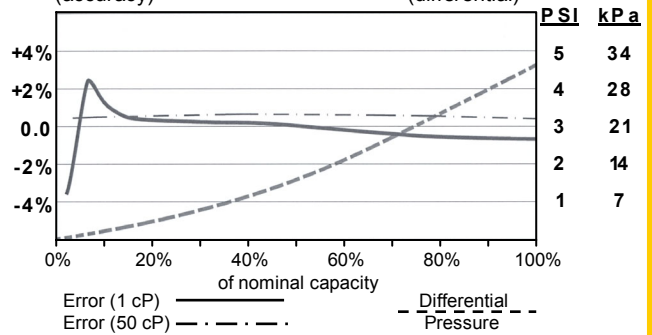
TM03A	Case :	Hardcoat anodized aluminum
	Seals :	Viton™ standard, Teflon™ optional (code B)
TM03D	Case :	316 Stainless Steel
	Seals :	Teflon™ standard.
	Posts :	316SS Hard Chrome coated
	Gears Std. :	PPS (polyphenylene sulfide resin)
	Opt. :	Stainless steel with carbon filled Teflon bearing
- **Pulsers:**

H	=	Hall Effect is standard
Pos. 14 Q	=	Opt. Quadrature Hall Effect (via SCL)
in P/No. B	=	Opt. Reed Switch, for use with FPP battery powered registers only.
- **Nominal Pulse Resolution:**

		<u>On 1 cSt viscosity</u>	<u>On 100 cSt viscosity</u>
Standard H & Q:		±1400 PPG (370 ppl)	±1350 PPG (355 ppl)
Optional H & Q:		±2800 PPG (740 ppl)	±2700 PPG (710 ppl)
	B only:	±700 PPG (185 ppl)	±670 PPG (178 ppl)

Linearity
(accuracy)

Delta P
(differential)



Meter Performance

- **Linearity** Over 10:1 turn-down from nominal capacity: ±0.5% with electronic enhancements: ±0.25%
- **Repeatability** ±0.25% under constant conditions

Approvals

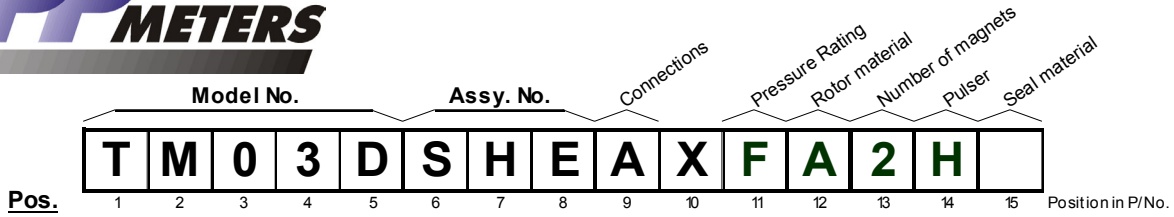
- **Flow Meter** CE mark
- **Pulsers** UL, cUL & ATEX listed; Intrinsically Safe when powered through a UL or ATEX listed barrier with appropriate rating.

Optional Registration, Signals & Accessories

- **Signal Conditioners:**
 - PIA** Pulse Isolator, Amplifier & Splitter, with sinking & sourcing output signal.
 - PAC** Pulse to Analog (4-20 mA) signal converter, requires min. 9 Hz input frequency.
 - SCL** Scaler, Calibrator and/or Linearizer, please consult for selection & pricing.
- **Registers, Totalizers & Batch Controllers**
 - CC56** Battery powered register, NEMA 3R, 4X or 7/4X
 - ELNC** AC, DC or battery powered, NEMA 4X
 - PRT** AC or DC, high/low flow alarm, opt. 4-20 mA signal
 - PC58** DC or battery, Total & Rate, opt. 4-20 mA signal
 - PCDT58** DC or battery, opt. 4-20 mA signal
 - PDB180** AC or DC batch controller, opt. 4-20 mA signal
 - EMR²** DC, register/preset, serial port for PC interface, Optional with temperature compensation
 - 6116** Differential totalizer, pulse & 4-20 mA signal
 - 6127** Temperature compensated version of 6116
- **Accessories**
 - Inlet strainer for flow meter protection is recommended
 - Solenoid control valves, pneumatic operator
 - Solenoid control valves, electric operator

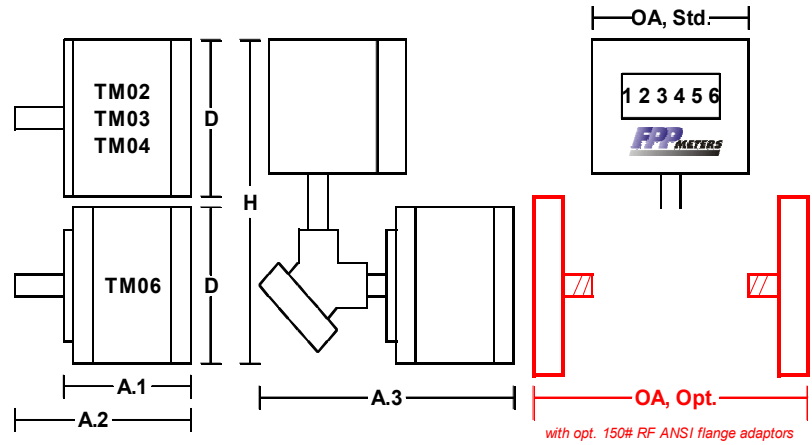


ISO 9001:2000 Certified



- Pos.** 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Position in P/No.
- 5:** A = Hardcoat Anodized Aluminum
D = 316 Stainless steel case
- 6-8:** SHE = Flow sensor with Hall Effect pulser
SQE = Flow sensor with Hall Effect pulser + SCL for quadrature signal
SRS = Flow sensor with Reed Switch pulser
- 9:** A = Bolted companion flanges, with NPT port.
B = Bolted companion flanges, with BSP port.
C = 3/8" NPT x 1/2" 150# RF ANSI adaptor (floating flange type)

All dimensions are in inches. 1" = 25.4 mm



Flow Sensor		Flow Meter with signal conditioner/register in enclosure									with ANSI adaptors				
		NEMA 3R			NEMA 4X			NEMA 7/4X							
		D	A.1	A.2	A.3	H	OA	A.3	H	OA	A.3	H	OA	OA, opt.	
TM03	400 PSI	2.73"	1.76"	3.12"	4.75"	3.61"	3.61"	4.34"	8.56"	5.06"		7.97"	5.89"	6.23"	
	1500 PSI	2.73"	1.96"	3.32"	4.95"	3.61"	3.61"	4.54"	8.56"	5.06"		7.97"	5.89"	na	
					A.4 =			3.02"			A.4 =			4.54"	



TUTHILL
Transfer Systems

Tuthill Transfer Systems,
P.O. Box 400,
Tickfaw, LA 70466, USA

Phone: 985-542-5200

888-578-3258

Fax: 985-542-7394

E-mail: FPPWebInquiries@tuthill.com

International offices:

	Phone	Fax
Europe, Africa & Middle East	+44 (1858) 467-888	+44 (1858) 433-732
Mexico	+52 (81) 8355-5535	+52 (81) 8355-5534
Carib/CA/northern South America	+57 (1) 633-6494	+57 (1) 757-2616
Argentina, Chile & Brazil	+54 (11) 4866-5641	+54 (11) 4866-5641
Australia/Pacific Rim	+61 (3) 9720-6533	+61 (3) 9720-6880
China	+86 (21) 5385-3369	+86 (21) 5385-3365

Distributed by: