



# Precision Meter Data

TS20AV

## Mechanical Flow Meters

**MODELS:** TS20AV03, TS20AV04, TS20AV05, TS20AV06, TS20AV07, TS20AV09, TS20AV11, TS20AV13, TS20AV17

TS series oval gear positive displacement precision meters offer weights and measures accuracy for fluid custody transfer. Using only two moving parts, the patented "Wave Form" design provides smooth and accurate operation. This package matches a TS20 precision meter to a register. Refer to Precision Meter Technical Manual or Precision Meter Price book for a complete list of options.

## Specifications

### Capacity with standard rotors

**Standard** 10:1 Turn-down

To 1500 SSU visc. (300cP) | 150 gpm (570 lpm) max

### Pressure Rating

Meter | 150 PSI at 100°F = 10 BAR at 40°C

### Temperature Rating

Meter | -15°F to +176°F = -26°C to +80°C  
MID Approval | -13°F to +131°F = -25°C to +55°C

### Viscosity

Standard Rotors (Low Viscosity) | 0 - 300 cp (1500 SSU)  
High Viscosity Rotors | > 300 cp (1500 SSU)

### Connections

Standard | 2" Bolted companion flanges with NPT or BSP port.

### Materials

Case | Anodized aluminum  
Gears | PPS with carbon bearings, PTFE bearings opt.  
Posts | Hard chromed Stainless steel  
Seals | Viton™ standard, PTFE optional.  
Flanges | Anodized aluminum

### Pulser

Optional | 10:1 dry reed on mechanical register

### Pulse Resolution

	10:1	100:1
1/10 gallon register	10 Pulses Per Gallon	100 Pulses Per Gallon
Whole liter register	10 Pulses Per Liter	100 Pulses Per Liter



TS20AV06

## Measurement Approvals

NTEP	99-210	15 - 150 gpm (57 - 570 lpm)
MID	GB-1366	15 - 150 gpm (57 - 570 lpm)
Measurement Canada	AV-2360	Refined Petroleum Products/General Solvents 20 - 100 gpm (75 - 380 lpm) Lubricating Oils 10.5 - 47.5 gpm (40 - 180 lpm)

## Safety Approvals

CE, ATEX | Meter Only

## Registration, Signals and Accessories

### Mechanical Registers








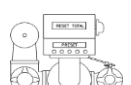
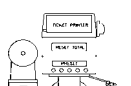
Register	#7887 standard (5 digit reset & 8 digit totalizer)
Register Volume	1/10 gallon or whole liter standard
Preset Counter	#7889 2-stage shut-off
Ticket Printer	#7888 Zero Start

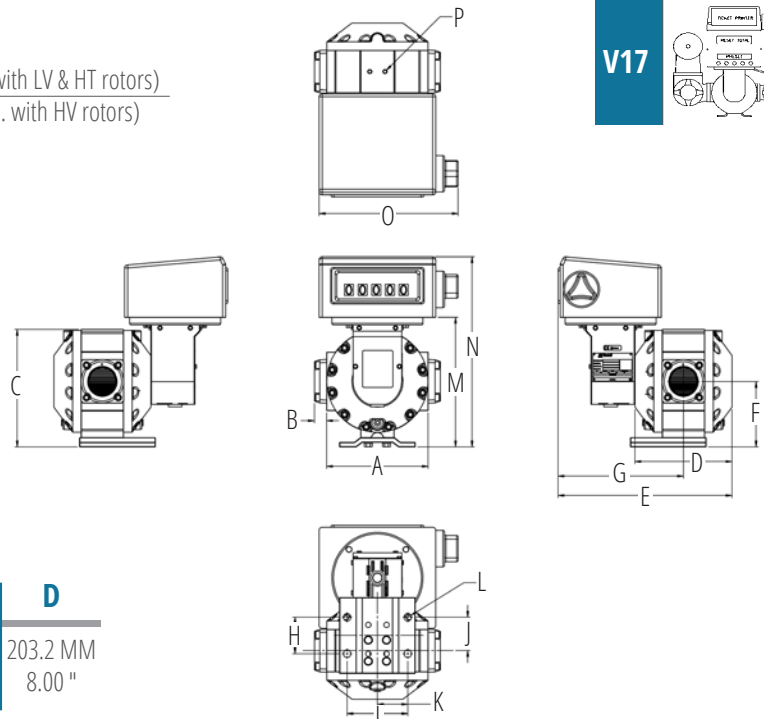
### Accessories

Inlet strainer for flow meter protection, air eliminator mounted on strainer, backpressure valve for enhanced air elimination on trucks, air check valve on flow meter outlet side, mechanical preset valve, 10:1 and 100:1 pulsers, 150# ANSI flanges, weldment flanges. 20, 40, 100, and 200 mesh strainer baskets. Accumulative ticket printer, micro switch for preset.

# Model Number Specifications

<b>TS</b>										
<b>20</b>										
<b>A</b>	<b>Material</b>	<b>A</b>	Anodized Aluminum							
Assembly Number										
Flange		<b>A</b>	NPT							
		<b>B</b>	BSP							
Register Calibration				<b>Mechanical Register</b>	<b>T</b>	1/10 US gallons		<b>L</b>	1/1 liter	
Pressure Rating		<b>C</b>	150 PSI (10 BAR)							
Rotor & Bearing				<b>Type</b>	<b>Mat'l</b>	<b>Bearing</b>				
		<b>B</b>	LV	PPS	Carbon					
		<b>I</b>	HV	PPS	Carbon					
		<b>C</b>	LV	PPS	PTFE					
Drive		<b>M</b>	Mechanical							
Pulser		<b>X</b>	none							
		<b>D</b>	10:1 dry reed							
Seals		<b>A</b>	Viton™ (std. in Anodized Aluminum Models)							
		<b>B</b>	PTFE (std. in SS, opt in AA)							
Strainer		<b>S</b>	Tuthill 90° Strainer							
Basket Mesh		<b>4</b>	40 Mesh Basket (std. with LV & HT rotors)							
		<b>2</b>	20 Mesh Basket (std. with HV rotors)							

<b>V03</b>		Meter Only - No Register (Register Ready), Calibrator, RAD Adaptor, No Ratio Gear Plate (Distributor to Add)
<b>V04</b>		Meter Only - Calibrator, RAD Adaptor, Ratio Gear Plate & Register
<b>V05</b>		V04 + Strainer
<b>V06</b>		Calibrator, RAD Adaptor, Ratio Gear Plate, Register, Strainer & Air Eliminator
<b>V07</b>		V04 + Zero Start Ticket Printer
<b>V09</b>		V06 + Zero Start Ticket Printer
<b>V11</b>		V04 + 2-Stage Preset Counter & Preset Valve
<b>V13</b>		V06 + 2-Stage Preset Counter & Preset Valve
<b>V17</b>		V06 + 2-Stage Preset Counter, Preset Valve & Zero Start Ticket Printer



## Dimensions

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<b>TS20AV04</b>	212.7 MM 8.38 "	25.4 MM 1.00 "	244.5 MM 9.63 "	203.2 MM 8.00 "	364 MM 14.33 "	136.5 MM 5.38 "	262.4 MM 10.33 "	76.2 MM 3.00 "	127 MM 5.00 "	69.9 MM 2.75 "	63.5 MM 2.50 "	0.625 THRU	269.9 MM 10.63 "	396.5 MM 15.61 "	291 MM 11.46 "	5/16 - 18 UNC - 2