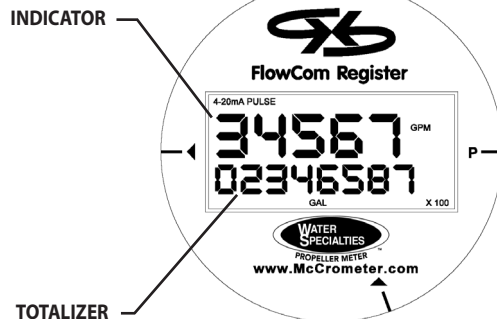


**MODEL ML20-D**

150 psi WELDING SADDLE METER
SOLID STATE ELECTRONIC PROPELLER METER
DIGITAL INDICATOR-TOTALIZER
SIZES 4" thru 72"



TYPICAL
DIGITAL INDICATOR-TOTALIZER

**DESCRIPTION**

MODEL ML20-D WELDING SADDLE METERS are manufactured to the highest standards. Materials used on all meters and flow ranges meet or exceed AWWA standard C704-02. The weld-on design permits use in a wide range of applications with up to 150 psi working pressure. It is necessary, upon ordering, to furnish the I.D. dimension of the pipe the meter is to be mounted on for calibration purposes. The O.D. dimension or wall thickness must also be furnished for proper fit of the saddle to the pipe.

INSTALLATION is made by cutting a hole in the existing pipe line and then welding the saddle to the line. The removable meter head assembly can then be bolted to the saddle. The meter can be installed horizontally, or inclined on suction or discharge lines. The meter must have a full flow of liquid for proper accuracy. Fully opened gate valves, fittings, or other obstructions that tend to set up flow disturbances should be a minimum of ten pipe diameters upstream and two pipe diameters downstream from the meter. Installations with less than ten pipe diameters of straight pipe require straightening vanes. Meters with straightening vanes require at least five pipe diameters upstream and two pipe diameters downstream of the meter. An optional remote mounting kit with up to 100 feet of cable is available to locate the indicator-totalizer at remote locations.

PROPELLER is magnetically coupled with the electronic sensor through the sealed gearbox. This completely eliminates water entering the meter assembly, and eliminates all moving parts except for the propeller. The propeller is a conical shaped three bladed propeller, injection molded of thermoplastic material resistant to normal water corrosion and deformity due to high flow velocities.

BEARING is a water lubricated ceramic sleeve and spindle bearing system with a ceramic/stainless steel spindle. Dual ceramic thrust bearings, standard on all meters, handle flows in both forward and reverse directions. The bearing design promotes extended periods of maintenance free propeller operation. Bearings within the sealed meter mechanism are shielded precision stainless steel bearings and are factory lubricated for the life of the meter.

DIGITAL INDICATOR-TOTALIZER has a non-volatile EEPROM memory to store totalizer count (updated hourly while running). Features a large two line display. Five digit top line indicates flow rate, and eight digit bottom line provides volumetric flow data. Indicator is available in 22 different units, including GPM, CFS, MGD. Totalizer is available in 20 different units, including Gallons, AF, CF. Units of measurement are user-selectable. Battery life is 6 - 10 years. Housing is NEMA 4X rated.

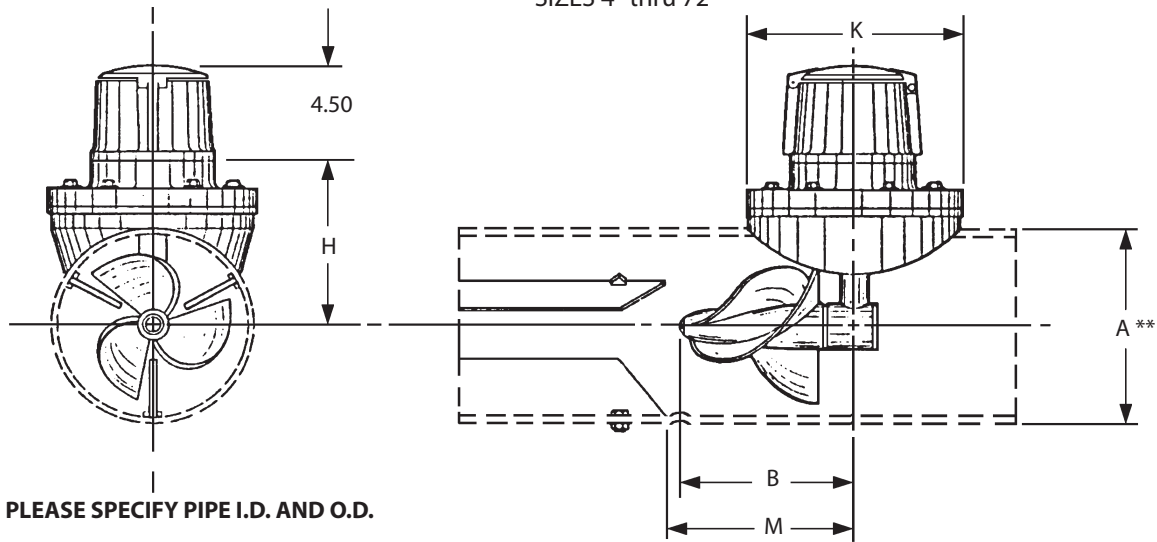
Available with optional 4-20mA and/or pulse output.

SPECIFICATIONS

| | |
|---------------------------|--|
| ACCURACY | Plus or minus 2% of actual flow within the range specified for each meter size. |
| PRESSURE RANGE | Up to 150 PSI maximum working pressure. |
| TEMPERATURE RANGE | 140° F Maximum. Consult factory for special construction for higher temperatures. |
| MINIMUM FLOWS | As shown for each meter size and construction are required for accurate registration. See flow chart. |
| MAXIMUM FLOWS | As shown for each meter size and construction are rated for continuous operation. See flow chart. |
| INTERMITTENT FLOWS | As shown for each meter size are rated for 10% to 15% of the total time the meter is operating. Consult factory for High Velocity construction when intermittent flows are higher than shown on flow chart and/or when longer operating periods are required. |
| MATERIALS | Used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. PROPELLER MAGNETS - anticorrosive aluminized barrier coated magnets; Everlube 6155 PROPELLER BEARING - ceramic sleeve type PROPELLER SPINDLE - ceramic coated stainless steel PROPELLER - injection molded thermoplastic GEARBOX - cast bronze SEPARATOR - stainless steel METER HEAD BOLTS - stainless steel (4"-20"), plated steel (24"-72") METER HEAD - cast iron or fabricated steel, fusion epoxy coated. |
| OPTIONAL EQUIPMENT | Includes a remote mounting kit with up to 100 feet of cable, totalizer extensions, digital transmitter, and a wide range of controls and instruments for indicating, totalizing, and recording flow data for each meter. Special constructions and materials are available upon request. |
| ORDERING INFO | Must be specified by the customer and includes: Minimum & maximum flow ranges Temperature of meter environment Indicator scale & units Totalizer dial units Type of materials and construction Optional equipment desired Pipe I.D. and O.D. |

MODEL ML20-D

150 psi WELDING SADDLE METER
 SOLID STATE ELECTRONIC PROPELLER METER
 DIGITAL INDICATOR-TOTALIZER
 SIZES 4" thru 72"



| METER & PIPE SIZE | FLOW RANGES, GPM STANDARD CONSTRUCTION MIN-MAX-INT | HIGH VELOCITY CONSTRUCTION MIN-MAX | DIMENSIONS | | | | | EST. SHIPPING WEIGHT POUNDS |
|-------------------|--|--|-------------------------------|-----|--------------------------------|-----|-----|-----------------------------------|
| | | | A | B | H | K | M | |
| 4 | 55-500-700 | 200-700 | 4½ | 8 | 5 ³ / ₁₆ | 9 | 10 | 55 |
| 6 | 120-1200-1500 | 300-1500 | 6 ⁵ / ₈ | 8 | 6¼ | 9 | 10 | 55 |
| 8 | 150-1500-2000 | 400-2500 | 8 ⁵ / ₈ | 8 | 7¼ | 9 | 10 | 55 |
| 10 | 180-2000-3000 | 500-3500 | 10¾ | 8 | 8½ | 11 | 10 | 60 |
| 12 | 200-3000-3500 | 800-5000 | 12¾ | 8 | 9½ | 11 | 10 | 70 |
| 14 | 300-4000-4500 | 1000-6000 | 14 | 8 | 10½ | 13½ | 10 | 75 |
| 16 | 400-5000-6000 | 1200-7500 | 16 | 8 | 11½ | 13½ | 10 | 75 |
| 18 | 700-6000-7500 | 1500-9000 | 18 | 8 | 12½ | 13½ | 10 | 75 |
| 20 | 850-8000-9000 | 2000-12000 | 20 | 8 | 13½ | 13½ | 10 | 75 |
| 24 | 1000-10000-13500 | 3000-15000 | 24 | 11½ | 17½ | 21 | 13½ | 250 |
| 30 | 1800-15000-21000 | 4000-25000 | 30 | 11½ | 20½ | 21 | 13½ | 250 |
| 36 | 2000-20000-30000 | 5000-35000 | 36 | 11½ | 23½ | 21 | 13½ | 250 |
| 42 | 3000-30000-40000 | 6000-50000 | 42 | 11½ | 27 | 32 | 13½ | 525 |
| 48 | 5500-35000-50000 | 7000-60000 | 48 | 11½ | 30 | 32 | 13½ | 525 |
| 54 | 6500-45000-55000 | 8000-65000 | 54 | 11½ | 33 | 32 | 13½ | 525 |
| 60 | 7500-60000-80000 | 10000-90000 | 60 | 18* | 36 | 32 | 22* | 525 |
| 66 | 8500-75000-95000 | 12000-105000 | 66 | 18* | 39 | 32 | 22* | 525 |
| 72 | 9500-90000-115000 | 15000-125000 | 72 | 18* | 42 | 32 | 22* | 525 |

Standard construction will be supplied for all main line meters unless special flow range, materials, or construction are required.
 * On High Velocity Meters "B" Dimension is 11½" and "M" dimension is 13½".