1. General
   1. All indicators furnished shall be manufactured by a registered ISO 9001 quality standard facility
   2. All indicators are to be manufactured in the USA
   3. Indicators supplied shall be from a US based company that has manufactured indicators for at least ten (10) years and who distributes all types and flow transmitters as indicated in these specifications
2. Type
   1. Indicators shall be of the digital type
3. Capacity
   1. The capacity of the indicators, in terms of normal operations, shall provide rate, total, and pulse output at a minimum
4. Function/Performance
   1. Operating Temperature: -32° to 131° F (0° to 55° C)
   2. Non-Operating Temperature: -40° to 158° F (-40° to 75° C)
   3. Rate Display: 5-digit auto-range, 0.65” (16.5mm) character height
   4. Rate Units: Gallons/second/minute/hour/day; Liter/second/minute/hour/day; Cubic Feet/second/minute/hour/day; Cubic Meters/second/minute/hour/day; Miner’s Inch; Mega Liters/day; Million Gallons/day; Fluid Oz/second/minute/hour/day
   5. Flow Totalizer: 8-digit, 0.75” (19.1mm) character height
   6. Total Units: Gallon, Gallon x 1,000, Liters, Mega Liter, Cubic Meter, Acre feet, Acre Inch, Cubic feet, Cubic Feet x 1,000, Million Gallon, Miner’s Inch, Fluid Ounce
   7. Pulse output Range: 0.1 – 99999.9 units/pulse
   8. Input: 5V pulse or contact closure (FT430/440) (Micro-power GMR Sensor; square wave, FT450)
   9. Input Range: 2 KHx Max (FT430/440) (Micro-power GMR Sensor, square wave, FT450)
   10. K-Factor Range: 0.001 – 999999.999
   11. Flow Alarm Output Range: 0.1 – 99999.9
   12. Password protection for tampering precention
   13. Low Battery Warning (FT450): A low battery warning shall be displayed when the battery has a minimum of two weeks
5. Physical
   1. Housing shall be made of a 30%, fiber reinforced, polybutylene terephthalate (PBT)
   2. Dimensions wall mount: 4.77” wide x 4.33” deep x 3.37” high
6. Indicator Serial Number
   1. The indicator serial number shall be imprinted on the flow transmitter.
7. Power Requirements
   1. FT430: 7-30 Vdc, 4mA
   2. FT440: 7-30 Vdc, 4mA (4-20) mA when loop-powered
   3. FT450: Lithium “C”, 3.6 Vdc, replaceable battery. Life expectancy ~5 years depending on usage.
8. Accessories
   1. 4-20 mA loop; 24-30 Vdc
   2. Protective hinged cover
   3. Non-resettable total
   4. Built-in 120/240 Vac/12/24 Vdc dual power supply (FT430W/FT440W only)
   5. Built-in 120/240 Vac/12 Vdc single power supply (FT430W only)
   6. Tamper evident security seal
9. Environmental
   1. Indicator shall be rated NEMA 4X (IP67)
10. **Regulatory**
    1. Indicator shall be CE approved

**Acceptable meters shall be Seametrics FT430/440/450 or approved equal.**

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