

A/J 510

FLUID COMPUTER



FEATURES

- Advance Technology and simplicity.
- Protection Structure IP 65.
- Password Protected Meter.
- Display Total + Flow Rate +Relay+ 4-20 mA Current O/P
- Lower installation and maintenance cost.
- One relay for Flow Control operation.

GENERAL DESCRIPTION

A/J - 510 are most advance monitors with built in Re-Transmission facility .A/J 510 electronic flow monitor are high speed micro- controller based units with a high resolution back-lit display. By using front panel tactile keys, one can view / program different parameters one can read the flow rate in LPH, M³ / Hr only and corresponding Total reading in Liter or M³ only. Our IP 65 grade enclosures make our flow meter versatile on both Panel & Field uses Along with these two consecutive displays these monitors also have relays to operate in various modes such as: Batcher, Pulser, and Rate Switch. As standard Fluid Computer provide 4-20 mA current output proportional to the flow rate/flow velocity. With optional / addition on cards these monitors can also provide **RS-232 or RS-485** output for further advance connectivity. With this facility direct printing option or computer connectivity becomes simple.

TECHNICALS

Technical Data	Electrical Connection ratings	Material
Function: Totalizer+	Power supply: 230 V AC +/-10%, 50 Hz	Meter Housing: Poly Carbonate
Flow Rate +Relay+ Retransmission		protection: IP-68
Accuracy: +/- 2% of Full Scale	Input: From VATS Sensor	weatherproof Enclosure
Repeatability: +/- 0.5 % of Full Range	Display: 7 Digits for Total 4 Digits for Flow Rate	Meter Size (mm): A 510: 105 *120
Mounting: Field/Panel	Cable Type: 2 Core PVC Shielded	J 510 :92*92*150 mm

APPLICATIONS

<i>water treatment</i>	<i>agriculture</i>	<i>construction</i>
<i>paper and pulp</i>	<i>food and beverages</i>	
<i>Waste water</i>	<i>power</i>	<i>textiles</i>

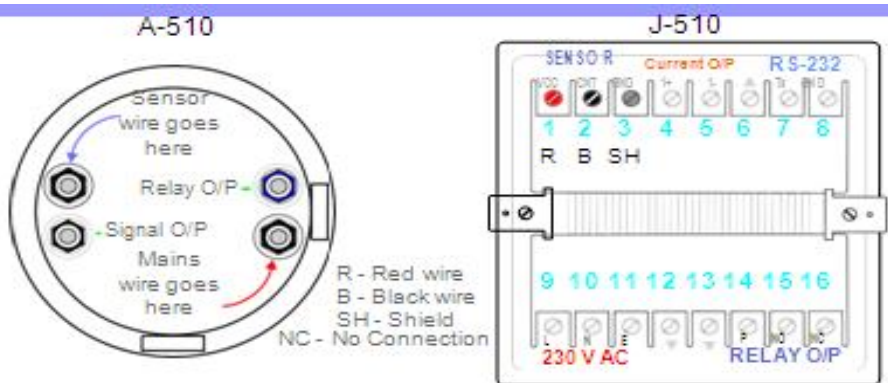
CALIBRATION

Scale factor: - Scale factor is a value, meaning amount of the liquid in engineering unit to one pulse generated by sensor.

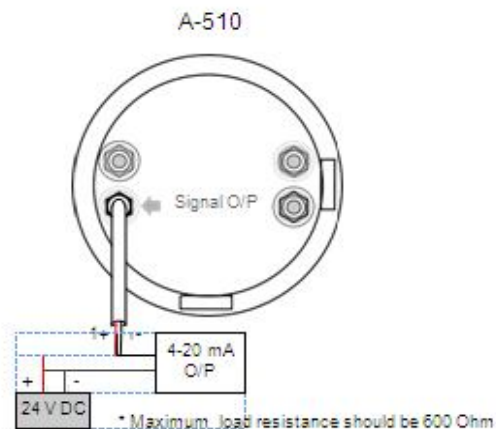
Recalibration: - Suppose actual total is 10 liters. But indicate valve on display is 9.8 liters.

$$\text{New Scale Factor} = \frac{\text{Measured Qty/ Flow Rate}}{\text{Displayed Volume /Flow}} \times \text{Existing Scale Factor}$$

WIRING-BACK SIDE OF METER



Following figure shows loop power method for taking 4-20 mA current output from our field meter i.e. A-510.



This is required to connect external DC power supply of +24 V. The 4-20 mA current loop is a very robust sensor signaling standard. Current loops are ideal for data transmission because of their inherent insensitivity to electrical noise. In a 4-20 mA current loop, all the signaling current flows through all components; the same current flows even if the wire terminations are not perfect. You can set desired flow rate at which you get 4 mA o/p i.e. low end of measurement range and also at which you get 20 mA o/p i.e. high end measurement range. Current supplied from the power supply flows through the wire to the transmitter and the transmitter regulates current flow within the loop. The current allowed by transmitter is called as loop current and it is proportional to flow rate.

