EKM METERING INC.

3/4" Vertical Water Meter - Stainless Steel, Pulse Output Spec Sheet

I. Functions and characteristics

1.) Model: EKM-VSPWM-075
2.) 3/4" vertical water meter for measuring water usage in cubic feet.
3.) With pulse-output communication for remote reading.
4.) No power source required.

II. Technical specifications

1.) Class B
2.) Weight: 3.2 lbs.
3.) Casing: Stainless Steel (grade: 304 body, 201 threaded adapters)
4.) Pulse rate: 1 pulse / 0.1 cu. ft; 1 pulse = approx. 0.75 gal.
5.) Accuracy: 5% from Qmin to Qt, 2% from Qt to Qs
6.) Maximum reading before zeroing: 9,999,999.99 cu. ft (Approx. 75,000,000 gal.)
7.) Minimum reading: 0.0035 cu. ft
8.) Maximum operating pressure: 140 psi
9.) Minimum flow (Qmin): 1.77 cu. ft/hr
10.) Overload flow (Qs):176.5 cu. ft/hr
11.) Nominal flow (Qp): 88 cu. ft/hr
12.) Transitional Flow (Qt): 0.7 cu. ft/hr
13.) Temperature range: 0-40 deg C / 32-104 deg F
14.) 3/4 Inch NPT male threaded adapters

III. Operation

This meter can be used as a traditional water meter where the water consumption is read off of the face of the meter. It also has the added functionality of being able to connect the pulse-output wires to a pulse counting device. This meter produces a pulse for every 1/10 cubic foot (approx 0.75 gallon, or 2.83 liters) that flows by the meter. This pulse-output water meter can be connected to our EKM-Omnimeter Pulse v.4 *(Fig 1)*. The pulse counting devices can then be connected to a computer, either locally or over the internet.

IV. Installation

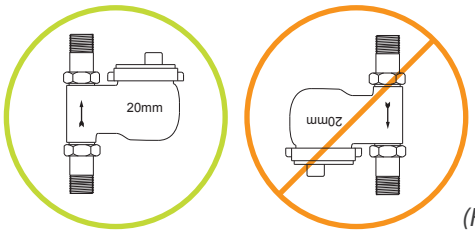
1.) We recommend that this meter be installed by a qualified plumber.
2.) Install vertically with the dial facing upwards. *(Fig 2)*
3.) Use teflon tape or pipe dope when connecting pipe fittings to the meter's NPT pipe threads.

V. Pulse Output

1.) Use in conjuction with our pulse counter to se a digital diplay of the total pulse counts.
2.) Use in conjunction with our EKM-Omnimeter Pulse v.4 for remote metering applications.
3.) The EKM-Omnimeter Pulse v.4 has ports for three separate pulse inputs (ports 11, 12 and 13). All of the pulse input devices share a common ground wire (Port 14). These wires can be up to 200 feet long.
4.) Connect the red wire from the water meter to either port 11, 12, or 13. Connect the black wire to port 14. See *(Fig. 1)*
5.) The easiest way to power the EKM-Omnimeter Pulse v.4 is with 110v AC. Connect a hot leg into port 7 and the neutral into port 10.
6.) For more information on how to read this meter remotely, please refer to the various communication devices that we offer on our website.

(Fig. 1)

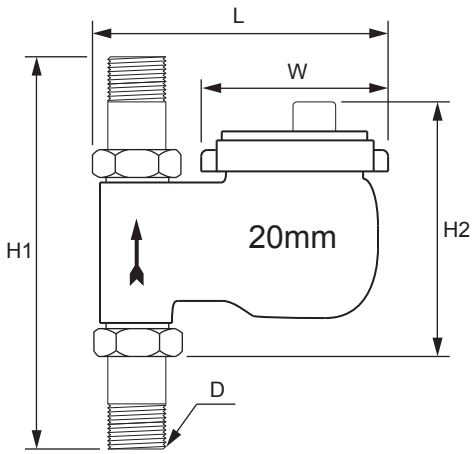
Install Vertically with the Dial Facing Up



(Fig. 2)

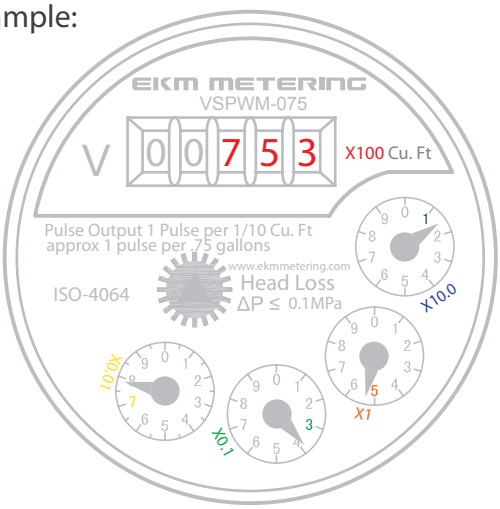
VI. Dimensions and Weight

Model	Size	L	W	H1	H2	D	Weight
VSPWM-075	20mm	135mm	94mm	204mm	105mm	3/4" NPT	3.2 lbs.



VII. Reading Your Meter

Example:



Conversion Multipliers:

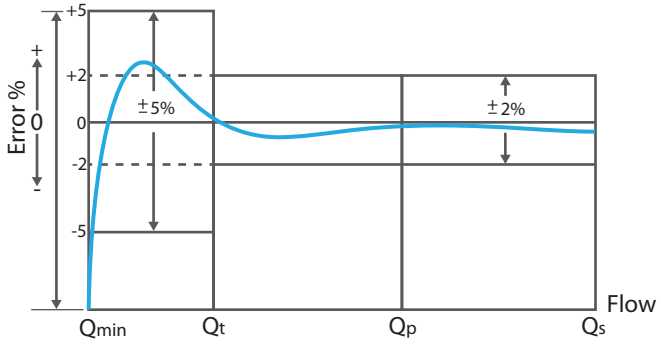
Cubic Feet: x1
Pulses: x10
Gallons: x 7.48052
Cubic Meters: x 0.0283168
Liters: x 28.3168

(753 x 100)
+ (1 x 10)
+ (5 x 1)
+ (3 x 0.1)
+ (7 x 0.01)
= 75, 315.37

75,315.37 x 1 = 75,315.37 cubic feet
75,315.37 x 10 = 753,153 pulses
75,315.37 x 7.48052 = 563,398.09 gallons
75,315.37 x 0.0283168 = 2,132.69 cubic meters
75,315.37 x 28.3168 = 2,132,693.78 Liters

*** Note:** Most Utilities in the United States round to the nearest 100 cubic feet. So in this case, only the red portion above, showing 75,300, would be necessary for determining usage.

VIII. Error Curve:



VIIII. Head Loss Curve: