2.0" Water Meter - Stainless Steel, Pulse Output Spec Sheet

I. Functions and characteristics
1.) Model: EKM-SPWM-200
2.) 2.0" water flow meter for measuring water flow in cubic meters.
3.) With pulse-output communication for remote reading.
4.) No power source required.

II. Technical specifications
1.) ISO4064 Standard Class B
2.) Dimensions: 17" long x 4.75" Wide x 6.5" tall
3.) Weight: 13 lbs., 12 oz.
4.) Casing: Stainless Steel 304
5.) Pulse rate: 1 pulse / 0.01 m^3; 1 pulse = approx. 2.64 gal.
6.) Accuracy: ±5% from Qmin to Qt, ±2% from Qt to Qs
7.) Maximum reading before zeroing: 99,999 m^3 (Approx. 26,416,900 gal.)
8.) Maximum operating pressure: ≤1MPA (PN:1.6MPa/16bar)
$$\Delta P \leq 0.1 MPa$$
9.) Minimum flow (Qmin): 0.45 m^3/hr
10.) Overload flow (Qs): 30.0 m^3/hr
11.) Nominal flow (Qp): 15.0 m^3/hr
12.) Transitional Flow (Qt): 3.0 m^3/hr
13.) Temperature range: 0-50ºC / 32-122ºF
14.) 2.0 Inch NPT male threads

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 0.01 cubic meters (approx 2.64 gallons, or 10 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 horizontally with the dials facing upwards. (Fig 2)
3.) Place gaskets between the mating surfaces of the meter body and the male threaded adapter.
4.) Tighten the threaded adapter onto the meter body using the nut.
5.) Use teflon tape or pipe dope when connecting other pipe fittings to the meter's NPT pipe threads.
Note: You do not need to use dialectric unions when connecting dissimilar metal fittings to the stainless fittings provided with the meter.

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 white wire to port 14 (See *Fig. 1*). Disregard the blue wire.
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.
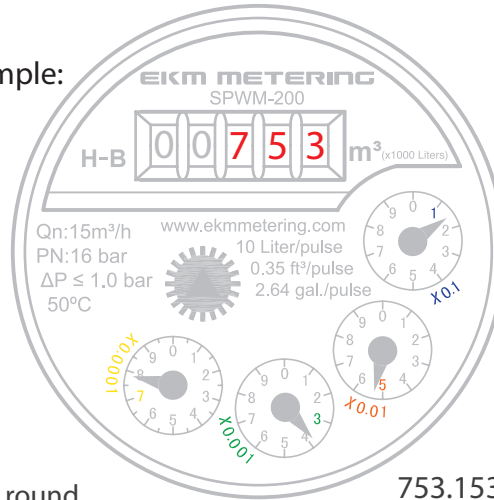

(Fig. 1)

Install Horizontally with the Dial Facing Up
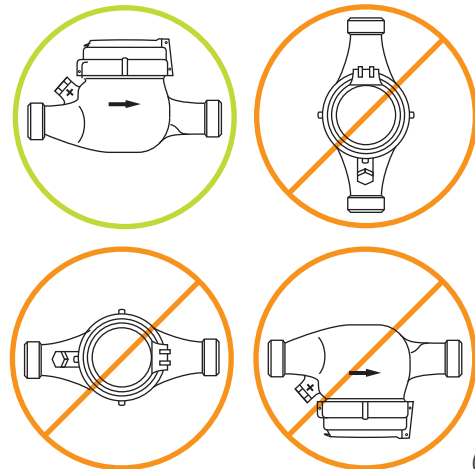
(Fig. 2)

VI. Reading Your Meter

Conversion Multipliers:
Cubic Meters: x1
Pulses: x100
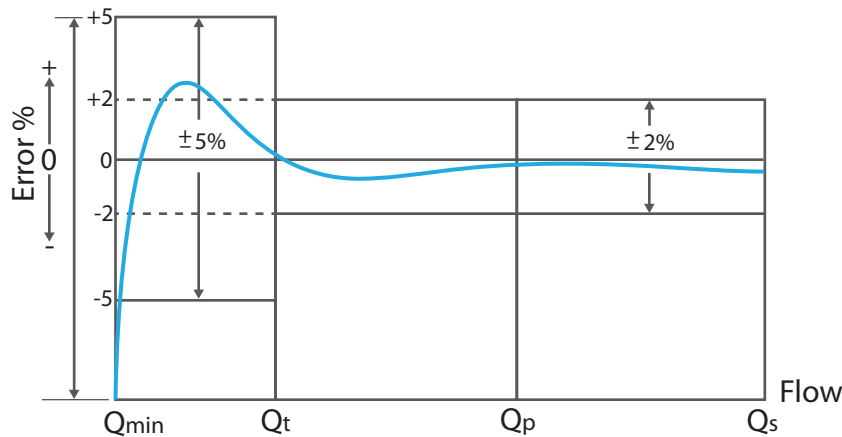Gallons: x264.172
Cubic Feet: x35.3147
Liters: x1000

Example:

EKM METERING
SPWM-200

H–B | 0 | 0 | 7 | 5 | 3 | m^3 (x1000 Liters)

Qn:15m³/h
PN:16 bar
ΔP ≤ 1.0 bar
50ºC

www.ekmmetering.com
10 Liter/pulse
0.35 ft³/pulse
2.64 gal./pulse

(753)
+ (1 x 0.1)
+ (5 x 0.01)
+ (3 x 0.001)
+ (7 x 0.0001)
= 753.1537m³

* Note: Most Utilities in the United States round to the nearest 100 cubic feet. So in this case, you would only need to multiply the red numbers by the conversion factor(35.3147) and round to the nearest 100.

753.1537 x 1 = 753.1537 cubic meters
753.1537 x 1000 = 753,153.70 Liters
753.1537 x 10 = 75,315.37 Pulses
753.1537 x 35.3147 = 26,597.40 cubic feet
753.1537 x 264.172 = 198,962.119 gallons

VII. Error Curve:

VIII. Head Loss Curve: