



FLOW SENSOR

Model FMS-2

Description: The FMS-2 is an inline flow sensor that can count the total volume of water that passes through it. This information can be used to record the total volume or determine the flow rate over a period of time.



Tube connection diameter: 1/4" (quick connect)

Cable Length: 93 cm (36.6 in)

Cable Connector: 4-pin modular connector jack (telephone jack style)

Weight (with cable): 30 g (1 oz.)

Maximum Operating Pressure: 6 kgf/cm² (84 psi)

Minimum Flow Rate: 0.3 l/min (0.08 g/min)

Maximum Flow Rate: 6.0 l/min (1.58 g/min)

Maximum Operating Temperature: 60°C (140°F)

Electrical Characteristics:

Switch Type: Reed switch

Contact: 1A

Maximum Power Load: 10W/VA

Maximum Power Input: AC 130V/DC 180V

Operating Amp Load: 0.7A

Maximum Amp Load: 1.0 A

Accuracy: +/- 10%

To determine the flow rate, a hertz signal must be sent to the flow sensor, as well as received. The difference in hertz rate will determine the flow rate. Any hertz signal can be used, as it is the difference that will determine the flow rate.

Formula: $1.8 + 1.05 \text{ Hz}$ (accuracy = +/- 10%)

Examples:

Hertz (Hz) difference	1.8	2.85	3.9	4.95	6.0	7.05	8.1	9.15	11.25	13.35	14.4	17.55	19.65
Flow rate (l/min)	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.6	1.8	2.0

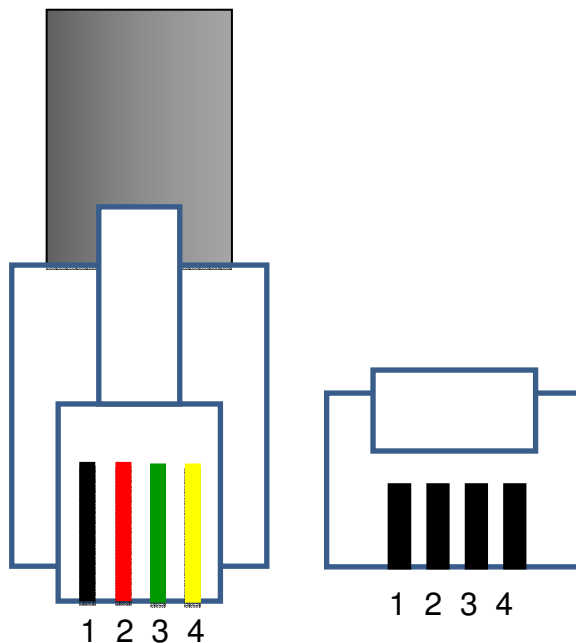
Note: It is the difference that is used to compute the flow rate. For example, if a 100 Hz signal is sent, and a 109.15 Hz signal is returned, the flow rate is 1.0 l/minute.



HM Digital, Inc.

**FMS-2 Connector
(FLOW SENSOR)**

1: yellow
2: green
3: red
4: black



1, 4: Identifier for FM-2 (no other function)
2, 3: Positive and negative contacts to
measure the flow rate. Contacts 2 and 3 are
not identified and either can be positive (+)
or negative (-).