



RAPHAEL

Product brochure

ULTRAF

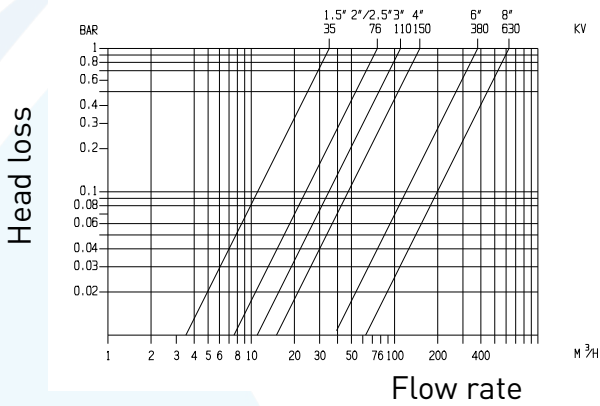
Ultrasonic Hydrometer for Agriculture



ADVANTAGES

- Simple to install and operate
- Single compact unit, space saving
- No moving parts
- Battery operated with extended battery life
- Minimal maintenance
- High level protection, according to IP68
- Pressure control
- Bluetooth App for field programming
- Optional cards (digital and analog output)
- Low head loss
- Supporting industrial communication protocol – Modbus type

Head Loss



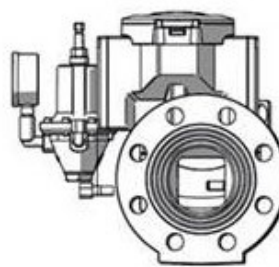
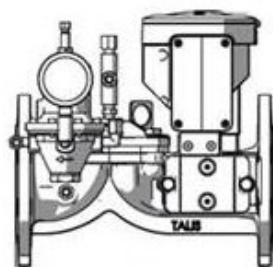
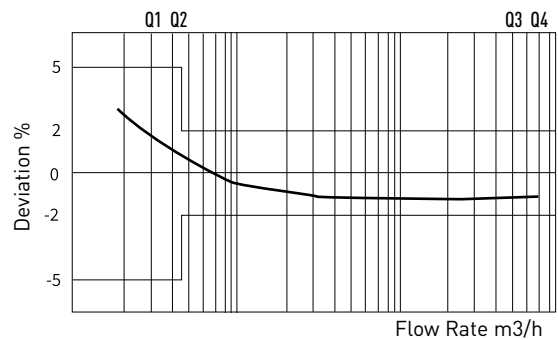
Product Performance

DN {mm}	40	50	80	100	150	200
DN {inch}	1½	2	3	4	6	8
Q1	0.2	0.32	0.504	0.8	2	3.2
Q2	0.51	0.51	0.806	1.28	3.2	5.12
Q3	25	40	63	100	250	400
Q4	31.25	50	78.75	125	312.5	500
R = Q3/Q1	125	125	125	125	125	125

Dimensions & Weight

DN {mm}	40	50	80	100	150	200
DN {inch}	1½	2	3	4	6	8
Length (mm)	250	250	300	350	500	600
Height (mm)	212	228	300	327	392	425
Width (mm)	190	190	223	240	310	350
Weight (kg)	9.5	10	13.5	21	43	67
End connections	TH			FF		

Accuracy



FEATURES

A one of a kind ultrasonic hydrometer which combines in a single small unit: an ultrasonic water meter, a hydraulic valve, and a smart system for water measurement, pressure control and pressure management. Based on RAF series of diaphragm hydraulic valves, Ultraf is battery operated with no moving parts and no maintenance. Ultraf will save installation space and will maintain same accuracy over the years.

- **Common uses:**
 - Accurate pressure control
 - Flow rate control
 - Flow input to an external irrigation controller
 - Independent, smart irrigation, hydrometer controller
- **Agricultural uses:**
 - Field crops
 - Orchards
 - Pivot irrigation systems
 - Pump systems



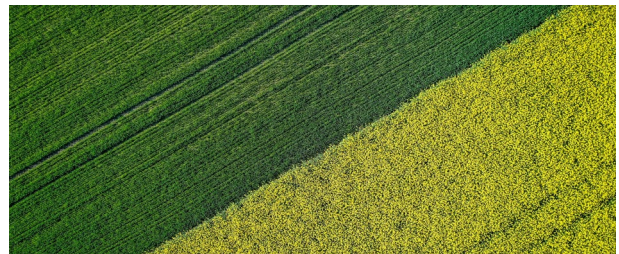
DISPLAY

The display provides ongoing information to the operator in the field, at all times, by two main ways: digital display monitor and output cards. Cards can be added at any time.

- **Information on the digital display:**
 - Water flow at any given moment.
 - Accumulated water volume.
 - Battery status.
 - Flow in the pipeline (if pipe is full).
 - Flow direction.
 - Alerts.
 - Connection status of electrical outputs from Ultraf Pro to external systems, and more.
- **Information about extension cards:**
 - Two digital ports, one to register flow and one to activate a latching solenoid valve.
 - A 4-20mA analog continues output for flow-rate monitoring.
 - Modbus output.



FIRE PROTECTION



IRRIGATION



WATERWORKS



SMART SOLUTIONS

RAPHAEL VALVES INDUSTRIES (1975) LTD, founded in 1949, is the first Israeli manufacturer of water control valves. RAPHAEL's research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire-protection irrigation systems and other fields.

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