QSTAR Ultrasonic Flowmeters



These meters are available in two models:

- A portable for mobile sampling measurements
- A fixed for measuring tasks over an extended period of time and continuous measurements in fixed installations.

Both units use the proven and highly precise ultrasonic transit time difference method.

By employing state-of-the-art digital processors, these robust measurement flowmeters are extremely accurate and drift-free.

SPECIFICATIONS

Model:	QSTAR PORTABLE	QSTAR FIXED
Operation:	Intuitive via 8 main keys (Soft Keys), plain text display	Intuitive via 8 main keys (Soft Keys), plain text display
Languages:	English, Spanish and French	English, Spanish and French
Units:	Metric / US	Metric / US
Outputs:	2x 4-20 mA, 1x Relay, 1x MicroUSB 1x Pulse	2x 4-20 mA, 1x Pulse, 1x MicroUSB 1x Relay, RS232 (opt.)
Inputs:	2x PT100	2x PT100
Integrated Data Logger:	2 GB	N/A
Data Logged:	Measurement and totalizers	N/A
Data Format:	Can be exported into standard office programs	N/A
Memory Cycle:	Adjustable, 1 second to 24 hours	N/A
Power Supply:	Integrated rechargeable battery and 100-240V AC adapter	85-264VAC, 18-36VDC (opt.)
	Battery Duration: Approximately 5 hours	Power Consumption: 10 W
Protection Class:	IP40	IP65, Ex/ATEX (in preparation)
Housing:	Aluminium, PVC	PVC, wall-mounted
Dimensions:	10.4 x 7.5 x 2.7 in. (26.4 x 19 x 6.8 cm)	10.2 x 9.4 x 4.7 in. (25.9 x 23.9 x 11.9 cm)
Operating Temp:	-4° F to 140° F (-20° C to 60° C)	-4° F to 140° F (-20° C to 60° C)
Transducer Temp:	-40° F to 300° F (-40° C to 149° C)	-40° F to 300° F (-40° C to 149° C)
Weight:	3.3 lbs (1.5 kg)	2.9 lbs (1.3 kg)
Display:	QVGA (320x240), black and white, adjustable backlighting	QVGA (320x240), black and white, adjustable backlighting
Carrying Case:	20 x 16 x 16 (50.8 x 40.6 x 40.6 cm)	N/A

MEASUREMENT

Principle:	Ultrasonic transit time difference with AFC technology
Values Meas:	Flow, flow speed, heat flow
Totalizers:	Heat quantity, volume
Meas. Range:	+/- 98 ft/s (± 30 m/s)
Signal Damping:	0 - 100 sec (adjustable)
Diagnostic Functions:	Acoustic velocity, signal strength, SNR, signal quality, amplitude, energy Oscilloscope function allows graphical display and analysis of signals.

MEASUREMENT ACCURACY

Inner Diameter Ø	Range	Deviation
.39 - .98 in. (1.0 - 2.5 cm)	6.56-98.42 ft/s (2-30 m/s)	2.5% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.16 ft/s (0.05 m/s)
.98-1.97 in. (2.5 - 5.0 cm)	6.56-98.42 ft/s (2-30 m/s)	1.5% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.10 ft/s (0.03 m/s)
1.97-11.81 in. (5.0 - 30.0 cm)	6.56-98.42 ft/s (2-30 m/s)	1% of reading
	0-6.56 ft/s (0-2 m/s)	± 0.07 ft/s (0.02 m/s)
11.81-236.22 in. (30.0 - 600.0 cm)	3.28-98.42 ft/s (1-30 m/s)	1% of reading
	0-3.28 ft/s (0-1 m/s)	± 0.03 ft/s (0.01 m/s)
Repeatability for majority of applications is <0.2%		

MODEL NO.	DESCRIPTION
QME05	Ultrasonic Flowmeter (ENERGY-FIXED, .5 MHz) 8" - 240"
QME10	Ultrasonic Flowmeter (ENERGY-FIXED, 1 MHz) 1.5" - 16"
QME20	Ultrasonic Flowmeter (ENERGY-FIXED, 2 MHz) .5"- 4"
QMF05	Ultrasonic Flowmeter (FIXED, .5 MHz) 8" - 240"
QMF10	Ultrasonic Flowmeter (FIXED, 1 MHz) 1.5" - 16"
QMF20	Ultrasonic Flowmeter (FIXED, 2 MHz) .5" - 4"

MODEL NO.	DESCRIPTION
QMP05	Ultrasonic Flowmeter (PORTABLE, .5 MHz) 8" - 240"
QMP10	Ultrasonic Flowmeter (PORTABLE, 1 MHz) 1.5" - 16"
QMP20	Ultrasonic Flowmeter (PORTABLE, 2 MHz) .5" - 4"
QMF-PT100	Temperature Sensor Kit, FIXED (16 ft. / 4.87 m)
QMP-PT100	Temperature Sensor Kit, PORTABLE (16 ft. / 4.87 m)
QMS-WTG	Pipe Wall Thickness Gauge