QSTAR Ultrasonic Flowmeters (UFM)

QStar UFMs are available in two different models: a portable for temporary applications and a fixed for stationary applications. By employing the latest digital signal processors, these robust measurement devices are extremely accurate and drift-free.

Specifications

- -40 to 300 °F
- Pipe Size 1/2" – 240"
- Pipe Material: All common materials (ultrasonic conductible) such as steel and plastics
- Flow Velocities: +/- 98.42 ft/s
- Fluid: Liquids
- Accuracy: Up to 1%
- Certificates: IP / CE / ATEX (in preparation)
- Heat quantity measurement
- 5-point factory calibration

Typical Applications

Power Plants

- Cooling water
- Boiler feed water
- Condensate and heat circuits

Water and Waste Water Industry

- Influent, Effluent, Sludge
- Consumption and distribution measurements
- Chemical flows (small pipes, low flows)
- Leak detection
- Treatment dosage control

Facility Management

- Pump Control
- Optimization of heating and air conditionig
- Optimization of energy efficiency

Chemical and Petrochemical Industry

- Basic materials, intermediate and final products
- Hydrocarbon liquids
- Measurement on high pressure systems

Food and Beverage

- Consumption optimization

Pharmaceutical and Semiconductor Industry

- Non-invasive measurement of ultra pure fluids

FIXED

PORTABLE

GPI QSTAR

04/13 ML-2177-01

QSTAR Ultrasonic Meters

5252 East 36th Street North
Wichita, KS USA 67220-3205
316-686-7361 | FAX: 316-686-6746
888-996-3837 | www.GPImeters.net
GREAT PLAINS INDUSTRIES, INC.

Unique benefits:

Installation and setup is fast and easy — less than five minutes!
Quickstart Guide / Online Help / Electronic User's Manual

Large, backlit LCD screen

Anti-Noise Deflector Technology

Automatic Fluid Control Technology

Parameters Calculator (Proprietary)

- Available via USB drive, Smart-phone web app and online.
- Calculates flowrate accurately based on pipe size and velocity.
- Includes Reynolds number calculation

GPI Toll-Free Tech Support
Available 8-5 p.m. CST Monday through Friday

Heat Resistant (up to 300° F) Transducers Included

Integrated Heat Quantity Measurement Capabilities
Heat measurement inputs
Pre-programmed software

Online Diagnostics
Signal Strength Analyzer

Three sets of Transducers cover 1/2" to 240" pipe sizes

Cross Correlation Signal Detection

	QStar Portable	QStar Fixed
Operation:	Intuitive via 8 main keys (Soft Keys), plain text display	
Languages:	English, Spanish and French	
Units:	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	
Integrated Data Logger:	2 GB	N/A
Data Logged:	Measurement and totalizers	N/A
Data Format:	Text format, can be directly exported into standard office programs.	N/A
Memory Cycle:	Adjustable, 1 second to 24 hours	N/A
Power Supply:	Integrated rechargeable battery and 110V AC adapter Battery Duration: Approx. 5 hours	85-264VAC, 18-36VDC (opt.) Power Consumption: 10 W
Protection Class:	IP40	IP65, Ex/ATEX (in preparation)
Housing:	Aluminium, PVC	PVC, wall-mounted
Dimensions (LxWxD):	10.4 x 7.5 x 2.7 in.	10.2 x 9.4 x 4.7 in.
Operating Temperature:	-4° F to 140° F	
Transducer Temperature:	-40° F to 300° F	
Weight:	3.3 lbs	2.9 lbs
Display:	QVGA (320x240), black and white, adjustable backlighting	
Carrying Case :	20 x 16 x 16 in.	N/A

Measurement	
Principle:	Ultrasonic transit time difference with AFC technology
Values Measured:	Flow, flow speed, heat flow
Totalizers:	Heat quantity, volume
Measurement Range:	+/- 98 ft/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 inches	6.56-98.42 ft/s	2.5% of reading
	0-6.56 ft/s	± 0.16 ft/s
.98-1.97 inches	6.56-98.42 ft/s	1.5% of reading
	0-6.56 f/s	± 0.10 ft/s
1.97-11.81 inches	6.56-98.42 ft/s	1% of reading
	0-6.56 f/s	± 0.07 ft/s
11.81-236.22 inches	3.28-98.42 ft/s	1% of reading
	0-3.28 ft/s	± 0.03 ft/s
Repeatability for the vast majority of applications is <0.2%		

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