HYDRUS

ULTRASONIC WATER METER

DIEHL
Metering

APPLICATION

Highly accurate, lead-free brass ultrasonic smart water meter for residential, commercial and industrial installations.

FEATURES

- Extreme low-flow accuracy and long term measurement stability
- Integrated leak detection
- Mountable in any installation position
- Lead-free copper alloy body
- IP68 rated
- 42 days of hourly data storage
- Diehl Extended Encoder protocol that includes temperature, alarms and error messages, etc.
- Meets or exceeds C715 AWWA/ANSI Standards
- Complies with NSF/ANSI Standards 61, Annex F/G as well as FCC part 15 B

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GENERAL TECHNICAL DATA

		HYDRUS
Potable water temperature	°F	33 ... 122
Ambient operating temperature	°F	-13 ... 131
Ambient storage temperature	°F	-13 ... 158 (90° F max. for one hour)
Maximum operating pressure	psi	300
Power supply		Two 3.6 VDC lithium batteries
Battery lifetime		Up to 20 years
Encoder interface		9 digit programmable resolution industry standard encoder protocol, ASCII output for compatibility with most AMR/AMI systems, Diehl extended protocol is available
Data storage		Alarms and consumption values (42 days of hourly data storage)
Protection class		IP68

TECHNICAL DATA DISPLAY

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Display indication	LCD, 9-digit, additional symbols/display counter/unit
Units	Flow and volume (gpm, gal, ft^3, m^3)
Values displayed	Display test - total volume - firmware version / checksum - current flow - errors / alarms (Additional values based on configuration)
Alarms	Hardware flow - leak detection - backflow - air in pipe - low battery - undersized meter - no consumption - high temperature - freezing risk

APPROVAL

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NSF	Complies with NSF/ANSI Standard 61, Annex F/G
AWWA	Meets or exceeds applicable sections of the AWWA/ANSI C715 Standards
FCC	Complies with FCC part 15 B

MATERIAL

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Measuring pipe	Lead-free copper alloy (stainless steel 1½" & 2")
Register housing	Engineered polymer
Transducers	Composite
Reflectors	Stainless steel

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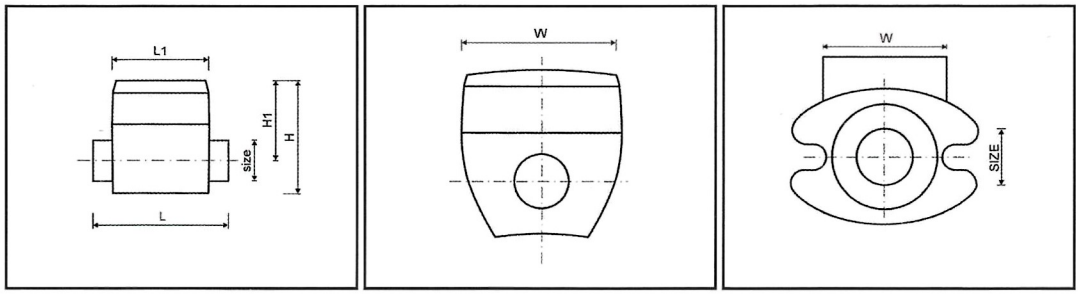
TECHNICAL DATA

Size		5/8" x 1/2"	5/8" x 3/4"	3/4"S	3/4"
Lay length	inch	7½	7½	7½	9
Operating flow range	gpm	0.08 - 22	0.08 - 22	0.1 - 32	0.1 - 32
Low flow range	gpm	0.025 - 0.08	0.025 - 0.08	0.04 - 0.1	0.04 - 0.1
Starting flow	gpm	0.011	0.011	0.017	0.017
Operating range accuracy	%	±1.5	±1.5	±1.5	±1.5
Low flow range accuracy	%	±5	±5	±5	±5
Pressure loss	psi	4.3@15 gpm	4.3@15 gpm	2.0@15 gpm	2.0@15 gpm

Size		1"	1 ½"	2" *
Lay length	inch	10¾	13	17
Operating flow range	gpm	0.1 - 55	0.16 - 100	0.8 - 170
Low flow range	gpm	0.055 - 0.1	0.1 - 0.16	0.55 - 0.8
Starting flow	gpm	0.025	0.038	0.11
Operating range accuracy	%	±1.5	±1.5	±1.5
Low flow range accuracy	%	±5	±5	±5
Pressure loss	psi	1.5@25 gpm	3.5@70 gpm	3.6@110 gpm

*Please contact Diehl Metering US for 2" availability.

DIMENSIONS



Size			5/8" x 1/2"	5/8" x 3/4"	3/4"S	3/4"
Lay length		inch	7½	7½	7½	9
Register length	L1	inch	3.5	3.5	3.5	3.5
Register width	W	inch	3.7	3.7	3.7	3.7
Overall height	H	inch	4.0	4.0	4.0	4.0
Height from center of pipe to top	H1	inch	2.7	2.7	2.7	2.7
Nominal thread size			¾" - 14 NPSM	1" - 11½ NPSM	1" - 11½ NPSM	1" - 11½ NPSM
Net weight		lbs.	2.8	2.8	2.8	3.1

Size			1"	1 ½"	2" *
Lay length		inch	10¾	13	17
Register length	L1	inch	3.5	3.5	3.5
Register width	W	inch	3.7	3.7	3.7
Overall height	H	inch	4.2	5.3	5.8
Height from center of pipe to top	H1	inch	2.8	3.3	3.3
Nominal thread size			1¼" - 11½ NPSM	oval flanges	oval flanges
Net weight		lbs.	3.5	14.1	19.2

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