

HYDRUS

ULTRASONIC WATER METER

DIEHL
Metering



APPLICATION

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

FEATURES

- ▶ Extended minimum low flow rate in comparison to mechanical meters
- ▶ Integrated leak detection
- ▶ Mountable in any installation position
- ▶ Lead-free copper alloy "CUPHIN®" body
- ▶ UV resistant housing with IP 68 rating
- ▶ Over 40 days of hourly data storage
- ▶ Accuracy is maintained over the life of the meter
- ▶ No measurement of air
- ▶ 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 range	°F 34 ... 122
Ambient operating temperature	°F 34 ... 158
Ambient storage temperature	°F -4 ... +140(> 90° F max. for one hour)
Maximum pressure	psi 300
Power supply	3.6 VDC lithium battery
Battery lifetime	Up to 20 years
Interfaces	Industry standard Encoder protocol, ASCII output for compatibility with all AMR/AMI systems, Diehl Extendend protocol is available
Data storage	Alarms and consumption values (42 days memory configurable value hourly / daily)
Protection class	IP 68
Operating performance	In the temperature range of 45 to 85° F, meter consumption measurement is accurate to $\pm 1.5\%$ over the normal flow range (reference: approved Diehl Metering test bench, ISO9001 certified)

TECHNICAL DATA DISPLAY

HYDRUS	
Display indication	LCD, 8-digit
Units	Flow and volume (gpm, gal, ft ³)
Values displayed	Volume - flow - reverse flow - water temperature - display test - error and alarm status - battery lifetime

APPROVAL

HYDRUS	
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

HYDRUS	
Measuring pipe	Lead-free copper alloy "CUPHIN®"
Register housing	Engineered Polymer
Transducers	Composite
Reflectors	Stainless steel

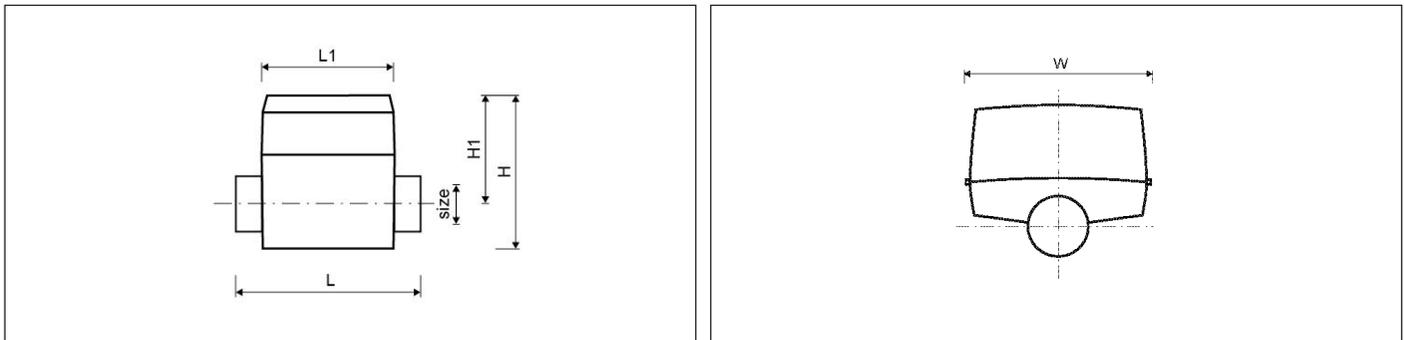
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TECHNICAL DATA

Size			5/8"	3/4" S	3/4" L	1"
Lay length	L	Inch	7½	7½	9.0	10¾
Safe Maximum Operating Capacity (SMOC)		gpm	0.1 - 20	0.1 - 30	0.1 - 30	0.4 - 55
Minimum test flow rate		gpm	0.05 - 0.1	0.05 - 0.1	0.05 - 0.1	0.25 - 0.4
Start flow @90%		gpm	0.0176	0.0176	0.0176	0.044
Max. flow		gpm	25	30	30	69
Operating range accuracy		%	± 1.5	± 1.5	± 1.5	± 1.5
Low flow range accuracy		%	-5 / +1.5	-5 / +1.5	-5 / +1.5	-5 / +1.5
Pressure loss			2.0 psi at 15 gpm	2.0 psi at 15 gpm	2.0 psi at 15 gpm	1.5 psi at 25 gpm
Operating performance			In the temperature range of 45 to 85° F, meter consumption measurement is accurate to ±1.5% over the normal flow range (reference: approved Diehl Metering test bench, ISO9001 certified)			

DIMENSIONS



Size			5/8"	3/4" S	3/4" L	1"
Lay length	L	Inch	7½	7½	9.0	10¾
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	4.2
Height from center of pipe to top	H1	Inch	3.3	3.3	3.3	2.8
Nominal thread size			1" - 11½ NPSM	1" - 11½ NPSM	1" - 11½ NPSM	1¼" - 11½ NPSM
Net weight		lbs.	2.8	2.8	3.1	3.5

TYPICAL FLOW CHARTS

