

# HYDRUS 2.0

## ULTRASONIC METER



### 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/CAN Standards 61 and 372, Annex F/G as well as FCC part 15 B

## GENERAL TECHNICAL DATA

HYDRUS 2.0	
Potable water temperature	°F 33 ... 122
Ambient operating temperature	°F -13 ... 131
Ambient storage temperature	°F -13 ... 158 (95°F max. for 4 weeks)
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

HYDRUS 2.0	
Display indication	LCD, 9-digit, additional symbols/display counter/unit
Units	Flow and volume (gpm, gal, ft <sup>3</sup> , m <sup>3</sup> )
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

HYDRUS 2.0	
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

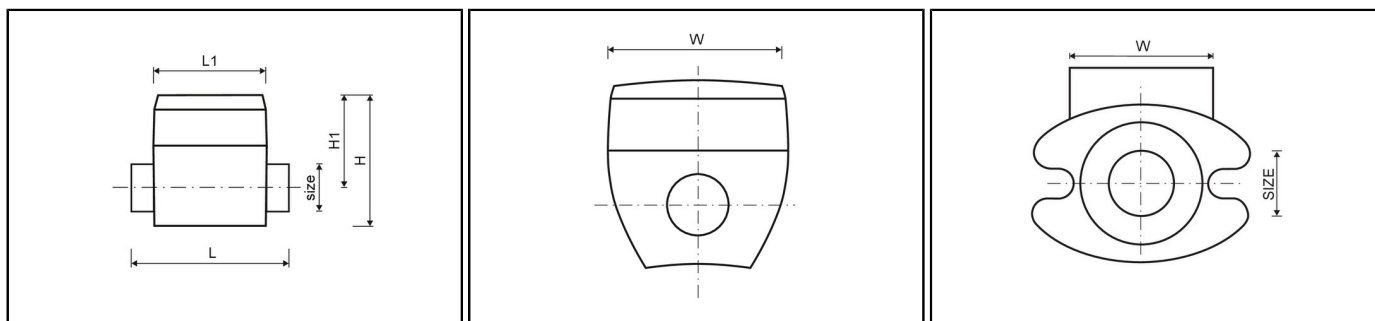
HYDRUS 2.0	
Measuring pipe	Lead-free copper alloy (stainless steel 1½" & 2")
Register housing	Engineered polymer
Transducers	Composite
Reflectors	Stainless steel

**TECHNICAL DATA**

Size		5/8" x 1/2"	5/8" x 3/4"	3/4" S	3/4"
Lay length	inch	7 1/2	7 1/2	7 1/2	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

Size		1"	1 1/2"	2"
Lay length	inch	10 3/4	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

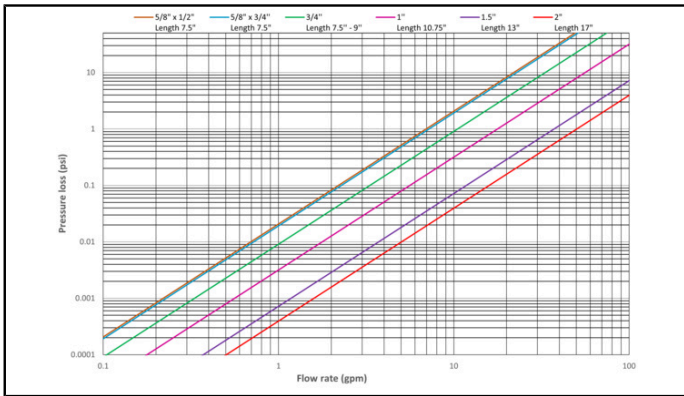
**DIMENSIONS**



Size		5/8" x 1/2"	5/8" x 3/4"	3/4" S	3/4"
Lay length	inch	7 1/2	7 1/2	7 1/2	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		3/4" - 14 NPSM	1" - 11 1/2 NPSM	1" - 11 1/2 NPSM	1" - 11 1/2 NPSM
Net weight	lbs.	2.8	2.8	2.8	3.1

Size		1"	1 1/2"	2"
Lay length	inch	10 3/4	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		1 1/4" - 11 1/2 NPSM	oval flanges	oval flanges
Net weight	lbs.	3.5	14.1	19.2

## PRESSURE LOSS GRAPH



## **Economic Actor Information**

Applicable regulation and legal obligations for products may change.

DIEHL METERING monitors applicable regulation to ensure their products comply at the date of placing on the market.

Each economic actor making products available on the market thereafter must independently keep informed about the current applicable regulation.

For questions, please contact: [metering-germany-info@diehl.com](mailto:metering-germany-info@diehl.com)

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