

# HYDRUS 2.0 BULK

## ULTRASONIC METER

**DIEHL**  
Metering



### APPLICATION

HYDRUS BULK is a static, ultrasonic water meter designed for highly accurate measurement of water. It's unique design ensures no measurement of air, is insensitive to sedimentation, and allows for long-term stability, even under the most difficult conditions.

### FEATURES

- ▶ Sizes 2" - 8"
- ▶ Extreme low-flow accuracy and long-term measurement stability
- ▶ Meets or exceeds C715 AWWA/ANSI Standards for type I and type II meters
- ▶ Complies with NSF/ANSI/CAN Standards 61, Annex F/G as well as FCC part 15B
- ▶ Certified compliance to UL 327B and FM 1044 for fire service applications
- ▶ Battery life of up to 20 years
- ▶ Cast iron, epoxy coated body
- ▶ IP68
- ▶ Installation in any position, no calming sections required
- ▶ Diehl extended encoder protocol that includes temperature, alarms and error messages, etc.
- ▶ 42 days of hourly data storage

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### TECHNICAL DATA

HYDRUS 2.0 BULK		
Water temperature	°F	33 ... 122
Ambient operating temperature	°F	14 ... 131
Ambient storage temperature	°F	14 ... 158 (>95°F max. for up to 4 weeks)
Maximum operating pressure	psi	175
Minimum operating pressure	psi	5
Power supply	3.6 VDC lithium battery	
Battery lifetime	up to 20 years	
Encoder interface	9 digit programmable resolution 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 of hourly data)	
Protection class	IP68	

### TECHNICAL DATA DISPLAY

HYDRUS 2.0 BULK	
Display indication	LCD, 9-digit, additional symbols/display counter/unit
Units	Flow and volume (GPM, gal, ft <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 BULK	
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
FM	Approved to FM1044 for fire service meters
UL	Listed to UL327B for fire service applications

### MATERIAL

HYDRUS 2.0 BULK	
Body	Cast iron, epoxy coated
Register housing	Engineered polymer
Transducers	Composite

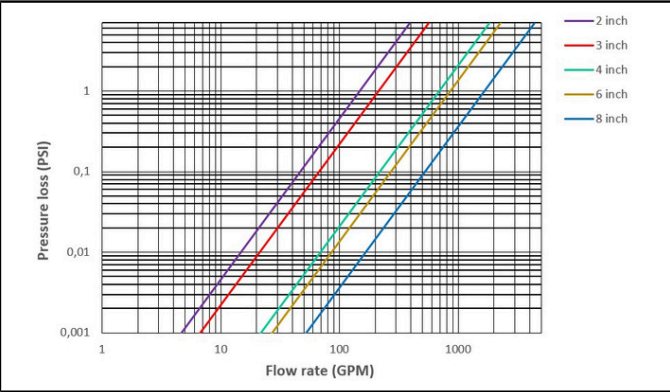
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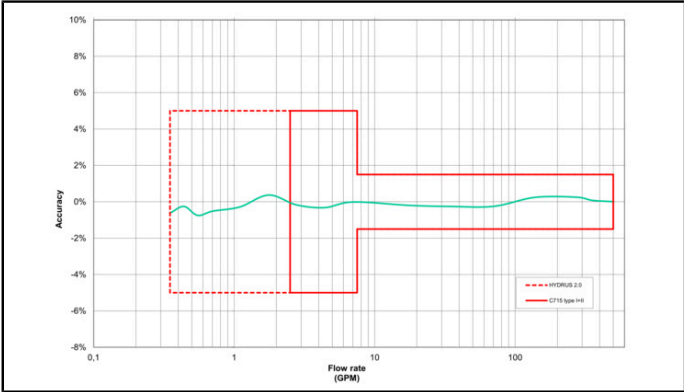
PERFORMANCE DATA

Size		2"	3"	4"	6"	8"
Operating flow range	gpm	2.5 - 250	7.5 - 500	10 - 1000	20 - 1900	40 - 2800
Low Flow range	gpm	0.2 - 2.5	0.35 - 7.5	0.65 - 10	1.37 - 20	2.75 - 40
Starting flow	gpm	0.141	0.317	0.484	0.660	0.969
Save maximum operating capacity (SMOC) at normal operation	gpm	250	500	1000	1900	2800
Save maximum operating capacity (SMOC) at fire service	gpm	250	400	1000	1600	2800
Pressure loss at SMOC normal operation	psi	2.8	5.5	2.1	4.8	2.8
Pressure loss at SMOC fire service	psi	2.8	3.5	2.1	3.4	2.8

PRESSURE LOSS GRAPH / ACCURACY CURVE

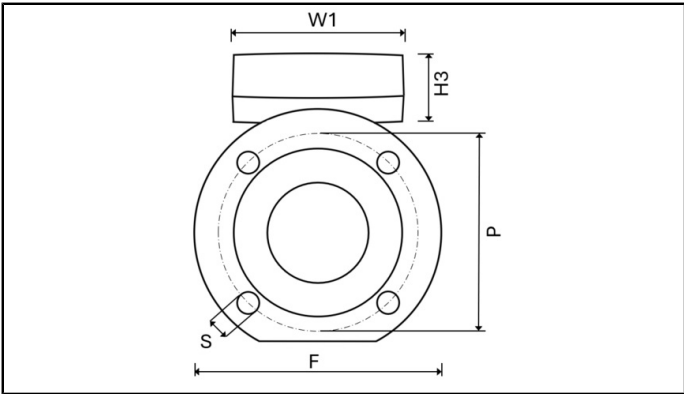
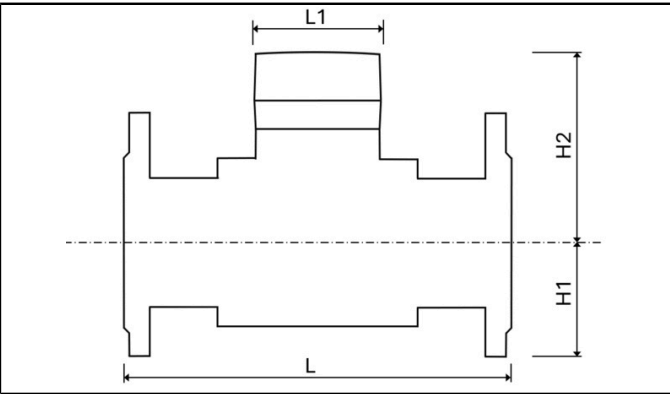


Pressure loss graph



Typical accuracy curve (3")

DIMENSIONS



Size			2"	3"	4"	6"	8"
Lay length	L	inch	10"	12"	14"	18"	20"
Height to pipe axis	H1	inch	5.6	6.5	7	7.3	8.4
Height above pipe axis	H2	inch	2.7	3.5	4.3	5.3	6.3
Register length	L1	inch	3.9	3.9	3.9	3.9	3.9
Register width	W1	inch	5.5	5.5	5.5	5.5	5.5
Register height	H3	inch	2.4	2.4	2.4	2.4	2.4
Flange diameter	F	inch	6.25 (oval)	7.5	9	11	13.5
Pitch circle diameter	P	inch	4.5	6	7.5	9.5	11.75
Number of bolt holes		pcs	2	4	8	8	8
Bolt hole diameter	D1	inch	3/4	3/4	3/4	7/8	7/8
Net weight		lbs.	22	36	46	121	132

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Subject to error and adjustments

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## 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)