

High-performance and cost-effective: HYDRUS measures smarter

HYDRUS will pay off thanks to its outstanding performance and economic viability: the innovative combination of ultrasound and integrated communication makes this the ultimate meter for automatic meter reading and smart metering. A robust design, reliable electronics, lasting measurement stability and minimised electricity consumption allow for many years of smooth operation.

HYDRUS offers unbeatable cost-efficiency when it comes to long-term operating and service costs: with a battery life* of up to sixteen years, this ultrasound meter has the lowest electricity consumption on the market and requires practically zero maintenance. In this time, HYDRUS can be read as often as desired using an AMR system – the integrated electricity monitor regulates sustainably efficient operation.

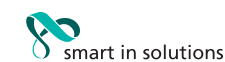
* More detailed information about this can be found on the HYDRUS datasheet on our website.

Smart Metering is coming – HYDRUS is ready. HYDRUS can be read immediately after installation per drive-by or via a fixed network. The meters require no additional parameterisation. Optimise your processes with an automatic infrastructure. Obtain exact reading date consumption data, reduce your invoice disputes, and optimise your monitoring, leakage recognition, data management and customer service.

As a strong partner with a comprehensive range of services – from meters for water, thermal energy, gas and electricity, through to system technology and smart metering, right on to software and services – Diehl Metering can help you. Profit now from the current opportunities in the energy sector. We will be happy to advise you.

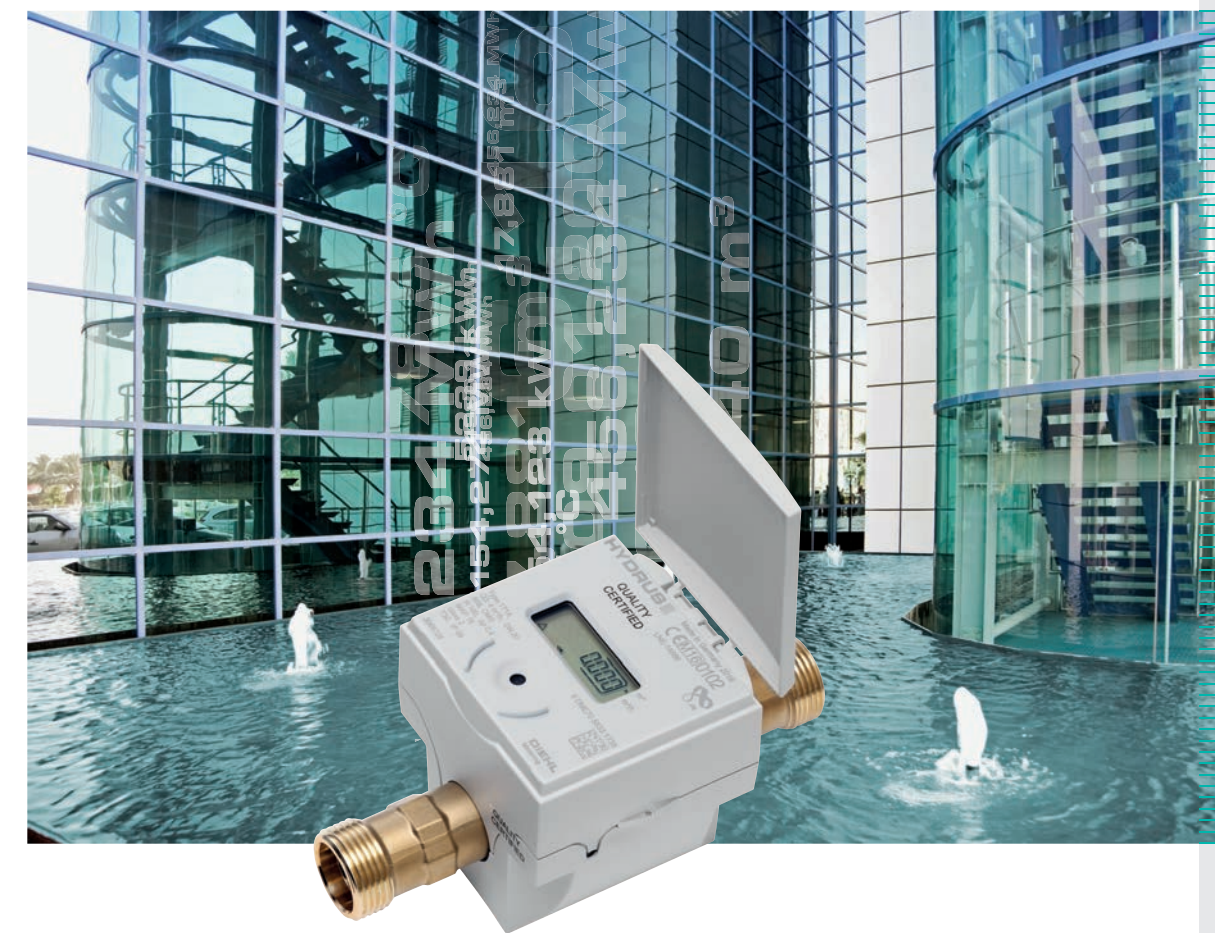


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A high performer in every situation



The new HYDRUS 1.3 ultrasonic water meter





HYDRUS 1.3 ultrasonic water meters

**A high performer
in every situation**



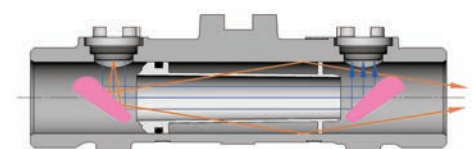
The new HYDRUS 1.3 comes with additional memory – and meets the highest security standards. With its robust design and durable measuring principle, HYDRUS is reliable and highly precise and will impress with its integrated communication and long-term economic operation, even in the harshest environmental conditions.



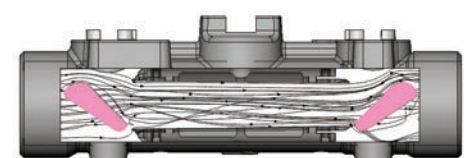
Data, data, data – and security

The new additional memory increases the pre-existing data memory for 32 hourly, daily, weekly or monthly values by a further 1024 daily values; these are compiled as follows: total volume, forward volume, medium temperature, ambient temperature, error status.

As the first ultrasonic water meter, the HYDRUS 1.3 comes with the Open Metering Standard – Generation 4, Security Profile B Model 7. Each separate data telegram is individually encrypted using session keys in accordance with the Advanced Encryption Standard 128. HYDRUS therefore has a future-proof security concept – and is compatible with the German Federal Office for Information Security's Smart Meter Gateway.



Interference-free precision measurement: the static free-flow principle minimises interfering signals, indicated in orange, and increases metering accuracy. Only the water that flows through the HYDRUS is measured – air is not read. Even for flow rates above the nominal flow rate Q3, HYDRUS measures extremely accurately and can even read return flows.



Easy to service for years to come: The flow-dynamic design means dirt particles and limescale stand no chance of settling and interfering with measurements. The reflectors, which are shaped like wings, ensure a self-cleaning flow profile and result in a uniform flow in the measuring channel. This allows the HYDRUS to clean itself and maintain its function quality for a particularly long time.

Smart – even under harsh conditions

HYDRUS is delivered with high-performance Diehl Metering radio technology as standard – and is thus ready for automatic meter reading immediately after installation. Based on real meter data, HYDRUS delivers the data basis for complex consumer profiles – within seconds and in real time.

The ultrasonic measuring principle is an original Diehl Metering development: it ensures reliable and precise operation, even if the water is heavily contaminated and contains sand. Air in the pipelines does not get measured. This eliminates metering errors and manipulation. The UV-resistant housing and fully potted electronics guarantee a long life – even when humidity levels are high and there are pressure surges in the pipeline system.

New short overall length, a complete range

The new HYDRUS products range from the nominal size DN 15 through 25, 32 and 40, all the way up to DN 50. All nominal sizes boast highest precision in the dynamic range 1:400, approved in accordance with MID. Even at DN 50, HYDRUS requires the same short measuring distance – with the same precision. HYDRUS thus delivers the perfect solution for every requirement.

At only 110 mm, our new short overall length DN 20 is just as compact as the previous DN15. The new power pack for riser and downpipe applications was specially developed for meter changes in Austria, Germany and Eastern Europe.

HYDRUS ultrasonic water meter

- **HYDRUS ultrasonic water meter:** precise measurement with long-term stability for all water supply applications.
- **Unlimited system compatibility:** supplied ready with wired and wireless M-Bus in accordance with OMS Standard 4.0 – for readings that take seconds.
- **Ideal for drive-by and fixed network readings:** HYDRUS transmissions are unidirectional, which allows it to transmit the most up-to-date data in short transmission intervals.
- **Accurate for the lowest and highest flow rates:** approved in accordance with EN and MID in the dynamic range 1:400.
- **Battery life up to 16 years*:** intelligent electronics design for extremely low consumption.

* More detailed information about this can be found on the HYDRUS datasheet on our website.