Measurement lock for Hawle underground hydrants

03/2026

Explanatory notes on the brochure

General media information in the product descriptions may apply subject to certain restrictions. Kindly always state the relevant medium in your given application when you place an order or submit a query.

If you have any further questions about our products, please do not hesitate to contact our employees of the application engineering division at any time.

Current information is available through our free newsletter. To subscribe, please visit www.hawle.de/newsletter.

Products for use in connection with potable water

In general, products sold by us are subject to the statutory warranty period of 2 years from the date of delivery at Hawle. Due to the high quality of Hawle products, we are able to offer you an extended warranty of 5 years for products manufactured by us. For more details, please see our website at: www.hawle.de/en/warranty-extension/

Information on our “10-year quality guarantee” for Hawle potable water products are available at the following link: **www.hawle.de/en/10-years-quality-warranty/**

For current information, please see our Hawle app. Further information is available at **www.hawle.de/en/downloads/hawle-app/hawle-app/**

Measurement lock for Hawle underground hydrants

The Hawle underground hydrant measurement lock has been developed for post-installation integration or fitting of a sensor into an already existing water pipeline system. The sensor is inserted into the pipeline system through an existing Hawle freeflow underground hydrant by means of the measurement lock. If no underground hydrant is available for installing a measurement lock, the Hawle freeflow underground hydrant can be integrated into the pressurized pipeline.

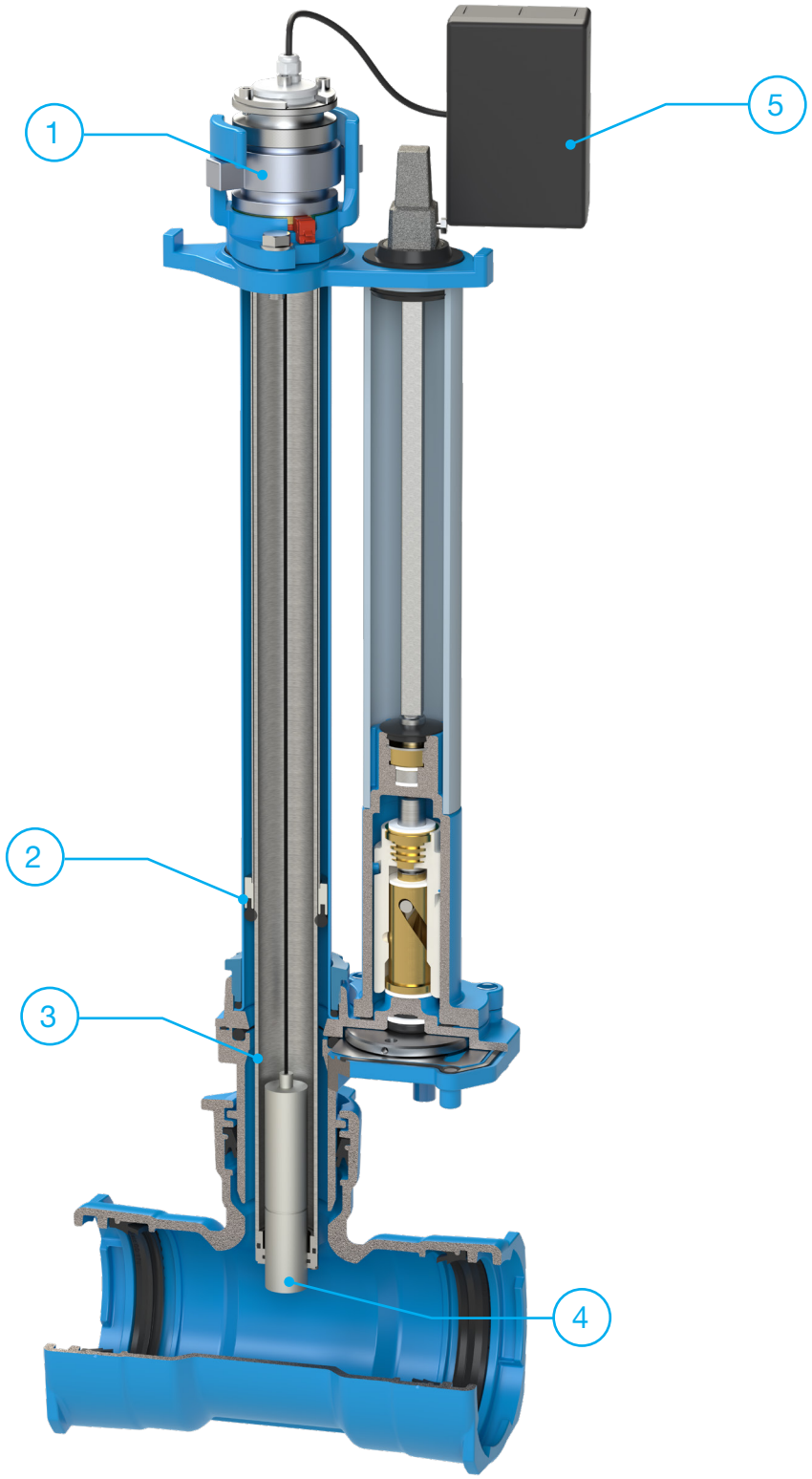
The measurement lock can be designed either as a permanent or temporary short-term measuring point.
The measurement lock can be installed and maintained easily and quickly from the street level. This means that the measurement lock and the sensor can be accessed easily at any time, for example, for maintenance and cleaning works. The system is frost-proof and protected against external environmental influences. The supply line need not be shut off for the installation of the measurement lock, since integration into the pipeline system under pressure (max. 16 bar) is possible at any time. At the construction site, the sensors provided by the customer are pushed/inserted into the Hawle freeflow underground hydrant through a specially developed probe tube using a setting tool.

Sensors up to a diameter of 60 mm can be inserted via the Hawle freeflow underground hydrants. Using the appropriate sensors, parameters such as turbidity, flow direction, pressure, conductivity, temperature, noise, leakage, etc., can be measured. In the probe tube, the entire electronic system as well as the required power supply can be installed as needed. Moreover, the data logger and the transmission unit can be installed under the surface box (e.g., surface box 211-00). In this case, a large surface box should be selected.

Technical features

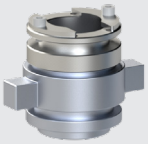
- Probe diameter: 60 mm
- Suitable for use with Hawle freeflow underground hydrants
- Also for use with underground hydrants tapped after installation (minimum tapping diameter of 65 mm): 490-00, 494-00 (in preparation)
- Access for measuring does not require the use of a manhole
- Maximum operating pressure 16 bar (depending on the pressure stage of the sensor)
- Provided with sensor sealing just above the shut-off unit of the underground hydrant to ensure frost protection and a minimum of eddy water

Installation situation of the measurement lock



Installation set 984-05:

1



Pressure flange

2

Sealing tube

3

Sensor tube

Sold separately:

Sensor setting device

No.	Short designation	Material
1	Pressure flange	Stainless steel / aluminum
2	Sealing tube	Stainless steel / EPDM
3	Sensor tube	Stainless steel / POM
4	Sensor	To be provided by customer
5	Data logger	To be provided by customer

Installation of the measurement lock

1

Dismantle the claw coupling and install the sealing tube

2

Install the claw coupling

3

Fit and brace the pressure flange

4

Insert the probe through the gasket below until it almost reaches the shut-off blade

5

Position the inserting tool, then open the underground hydrant at full operating pressure and move the sensor to its final position in the pipeline

6

Mount the locking plates and the antenna

Successful trial installation

A report by RheinEnergie

Trial installation of measurement lock

Pipe network monitoring – Take a look into the water pipe

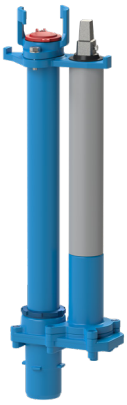
Potable water is the most thoroughly controlled food product. Our colleagues at the water laboratory continuously test a large number of samples extracted from the customer interface. The experts at the waterworks, too, consistently record the quantities produced, the outlet pressure, as well as the volume flow of the water. But what happens between the waterworks and your tap, in other words, within the water network system?
In cooperation with Hawle Armaturen GmbH, based in Freilassing, and measurement technology specialists, our colleagues from the technical network service (TB3) have now literally shed some light on the dark reaches of the pipeline system. The parties involved developed a prototype which makes it possible to insert a range of different measuring probes in a perfectly hygienic and application-oriented manner in the potable water system using freeflow underground hydrants.

With this device, a wide range of parameters such as pressure, flow direction, turbidity, electric conductivity, temperature, volume flow, or noise caused by potential leakages can be recorded directly in the water flow. The first prototype of this measuring probe has now been installed in the green belt in front of the district heating storage facility, and first turbidity and temperature measurements have been activated. The duration of measurement, measurement frequency and alert values can be determined, and these values are then transmitted via the 4G/5G network directly into the related cloud, where the data are made available for general evaluation, strategic decisions, temporary solutions, selective repairs, or general overhaul measures. This takes digitization of the potable water system to an entirely new level. Big Data is calling.

Text and images by RheinEnergie

Trial installation of measurement lock

Compatible underground hydrants



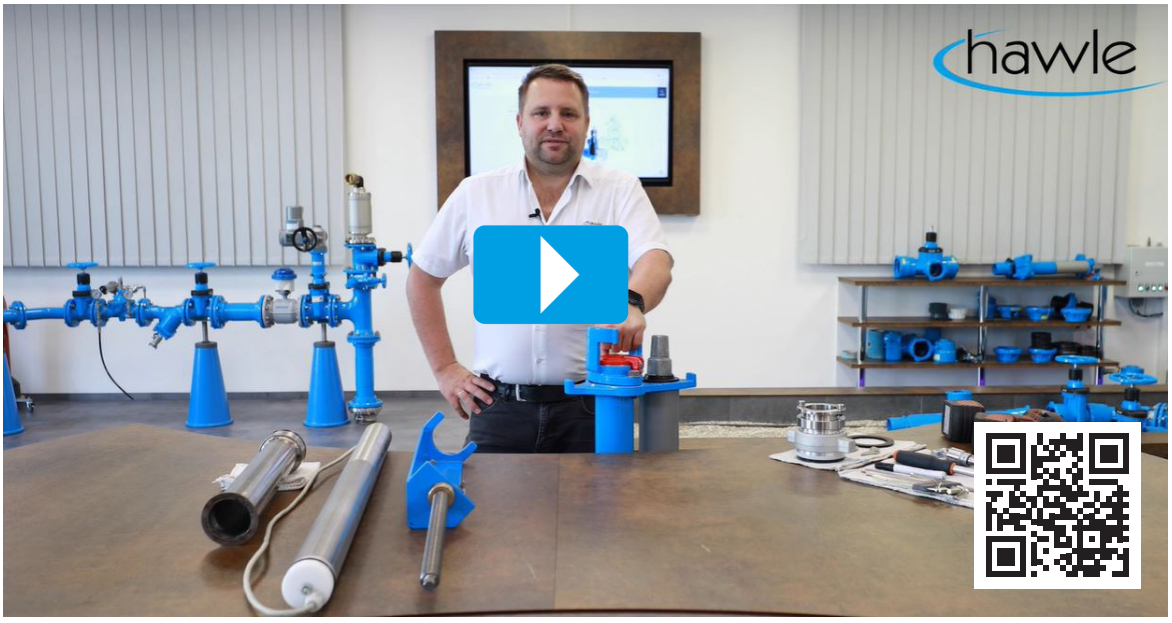
Freeflow underground hydrant
490-00

Freeflow underground hydrant
“height adjustable”
494-00
(in preparation)

Advantages of Hawle underground hydrants:

In conventional underground hydrants, water is extracted or shut off in a cast iron body, with the shut-off function being realized vertically via a spindle rod assembly and valve plug. In the Hawle freeflow underground hydrants, the shut-off function is achieved by means of a shut-off blade of stainless steel. The shut-off blade moves horizontally inside a housing against fixed metal stops - with hardly any wear - by means of an eccentric mechanism and drive.
By separating the operating pipe and the medium pipe, the hydraulic conditions in open position are clearly more favorable than those in hydrants with shut-off mechanisms using a valve plug. Moreover, thanks to the open cross-section, measuring equipment can be introduced to its fullest extent.

Virtual product launch:



www.hawle.de/video-984-05

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