Measurement lock for Hawle underground hydrants

04/2023

About this brochure

The general media specifications in the product descriptions may possibly be limited. Please make sure to inform us in your order and/or inquiry about the medium for which the respective application is intended.

Current information can be obtained via our free newsletter. For registration, please go to www.hawle.de/newsletter

If you have any more questions on our products, don't hesitate to contact our employees from Application Engineering any time.

	Products for use in the field of potable water
	Products for use in the field of municipal wastewater
hawle G 5 JAHRE Gewährleistung	In general, all products sold by us are subject to the statutory warranty period of 2 years from the day of delivery by Hawle. Due to the high Hawle product quality, we are able to offer you an extended warranty period of 5 years for all products manufactured by us. For more details, please refer to the Internet: **www.hawle.de/warranty**
hawle Q 10 JAHRE Qualitätsgarantie	For information regarding our „10 Years Quality Guarantee“ for Hawle potable water products, please follow the following link: **www.hawle.de/garantie**
	Current information can be obtained via our free newsletter. For registration, please go to **www.hawle.de/newsletter**

Hawle measurement lock for underground hydrants

The Hawle underground hydrant measurement lock has been developed for the later introduction of a sensor into an already existing water pipeline system. In the process, the sensor is placed in 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 later into the pipeline under pressure.
The measurement lock can be mounted and maintained easily and quickly from the road surface. Thus, quick access is possible to the measurement lock and the sensor, e.g. for maintenance and cleaning work. The Hawle measurement lock has been designed such that it can be easily integrated into already existing Hawle freeflow underground hydrants. The measurement lock can be installed either as a permanent or as a temporary short-term measuring point.
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 an integration into the pipeline system under pressure (max. 16 bar) is possible any time. The sensors provided by the customer are pushed/inserted into the Hawle freeflow underground hydrant through a specially developed sensor tube using a setting tool.

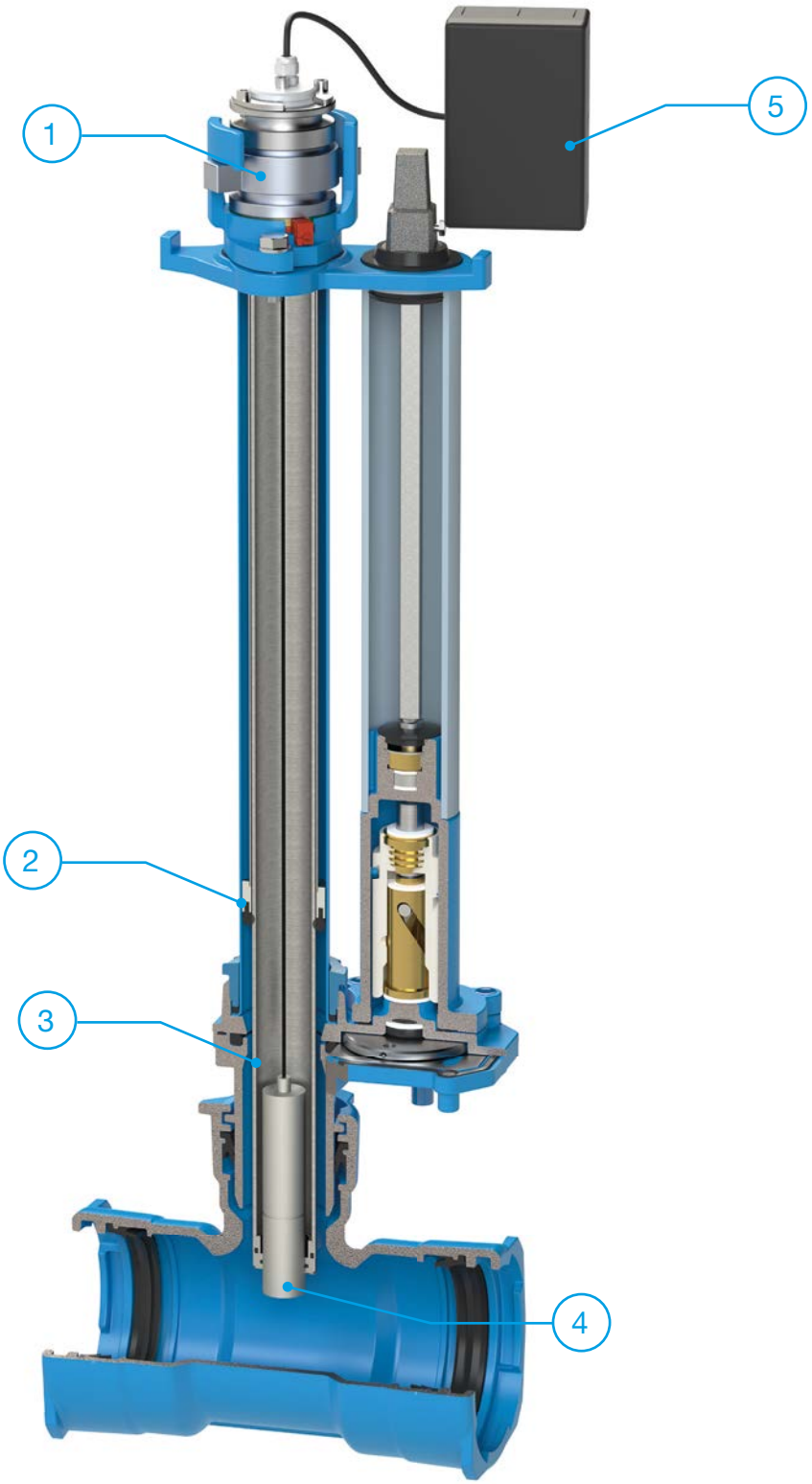
Sensors up to a diameter of 60mm can be introduced via the Hawle freeflow underground hydrants. The sensors must be provided by the customer. By means of the appropriate sensors, parameters such as turbidity, flow direction, pressure, conductivity, temperature, noise, leakage, etc., can be measured.
In the sensor tube, the entire electronic system as well as the required battery can be installed as needed.

Moreover, it is possible to integrate the data logger and the transmission unit below the surface box. In this case, a big surface box should be chosen.

Technical features

- Sensor diameter: 60 mm
- Can be used for Hawle freeflow underground hydrants
- Can also be used on underground hydrants drilled later: 490-00, 494-00 (in preparation)
- Measuring access possible without manhole
- Max. operating pressure 16 bar (depending on the pressure stage of the sensor)
- 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 measurement lock



Installation kit 984-05:

1

Pressure flange

2

Sealing tube

3

Sensor tube

Available separately:

Sensor setting device

No.	Short description	Material
1	Pressure flange	Stainless steel A4 / aluminium
2	Sealing tube	Stainless steel A2 / EPDM
3	Sensor tube	Stainless steel A2 / POM
4	Sensor	To be provided by the customer
5	Data logger	To be provided by the customer

Installation of measurement lock

1

Dismantle the claw coupling and install the sealing tube.

2

Install the claw coupling.

3

Set and brace the pressure flange.

4

Install the probe through the gasket below until just before the shut-off blade.

5

Put on the inserting tool, then open the underground hydrant under full operating pressure and move the sensor to its final position in the flow.

6

Mount the locking plates and the antenna.

* Notice: Please note our maintenance and installation instructions when installing. Please find them at www.hawle.de

Successful trial installation

A report by RheinEnergie

Trial installation of measurement lock

Pipe network monitoring - taking a look into the water pipe

Potable water is the most controlled food product. Our water laboratory staff permanently test a great number of samples we take at the customer interface. The colleagues at the waterworks, too, consistently record the quantities produced, the outgoing pressure, as well as the volume flow of the water. But what happens between the waterworks and the tap, i.e. within the water network? In cooperation with the company of Hawle Armaturen GmbH from Freilassing and measurement technology specialists, the colleagues from the technical network service (TB3) have now literally shed some light into the dark piping network. The partners involved have developed a prototype which makes it possible to accomplish a perfectly hygienic and application-oriented placement of different measuring probes in the potable water system via freeflow underground hydrants.

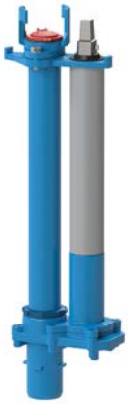
Thus, various parameters such as pressure, flow direction, turbidity, electric conductivity, temperature, volume flow, or noise caused by possible leakage can be recorded directly in the water flow. The first prototype of this measuring probe has now been installed in the green belt in front of the district heating storage, and first turbidity and temperature measurements have been activated. Measuring time, measurement frequency, the alert values can be determined and are transmitted via the 4G/5G network directly into the related cloud, where the data are available for general evaluations, strategic decisions, temporary solutions, selective repair, or general overhaul measures. Thus, the digitization of the potable water system is getting started in a new dimension. Big Data is calling.

Texts and images by RheinEnergie

Trial installation of measurement lock

Compatible underground hydrants

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



Freeflow underground hydrant
490-00

Advantages of the Hawle underground hydrant:

In case of conventional underground hydrants, water tapping and shutting off is effected 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 hydrant, shutting off is effected by means of a shut-off blade of stainless steel. The shut-off blade is moved horizontally against fixed metal stops in a housing via eccentric mechanism and gear ensuring low wear.
By separating the operating pipe and the medium pipe, the hydraulic conditions in opened position are clearly more favourable than those in hydrants with a shut-off mechanism via valve plug. Moreover, the open cross section allows the introduction of measuring equipment to a maximum extent.

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