

Q2/KDO flow meter

With flow velocity measurement by Doppler method



- **High range of flow velocity measurement in both directions up to ± 6 m / s**
- **Design for installation in free surface and in pipe wall**
- **The aerodynamic shape minimally disturbs the flow, no mechanically moving parts**
- **Particularly advantageous assembly in places without existing or hydraulically unsatisfactory specific profiles**
- **Telemetry unit with automatic transfer of data to the database on the server**
- **Extensive software support on the server (graphic and tabular visualizations, prints of monthly balances, ...)**
- **Easy extension with measurement of other quantities (levels, pressures, temperatures, ...)**
- **Parameters configurable remotely via the Internet**

Basic description

The flow measurement set consists of a Q2 / KDO or Q2-G / KDO telemetry unit, a flow rate sensor and a level sensor for the measured medium.

The intelligent KDO flow velocity sensor works on the Doppler principle and is supplied in a mechanical design for mounting on the bottom of the gutter or in the pipe wall. The sensor transmits a series of ultrasonic pulses to the measured medium at an angle of 45° and evaluates the flow rate based on the measurement of the frequency shift of the signal reflected from the particles carried by the flow. This measuring method also makes it possible to measure the backflow speed and can be used up to a maximum speed of 6 m / sec. The sensor includes a 10 m long cable, after which the sensor is powered from the Q2 / KDO unit and after which data communication also takes place via the RS485 interface. If necessary, this cable can be extended up to a max. distance of 500 m.

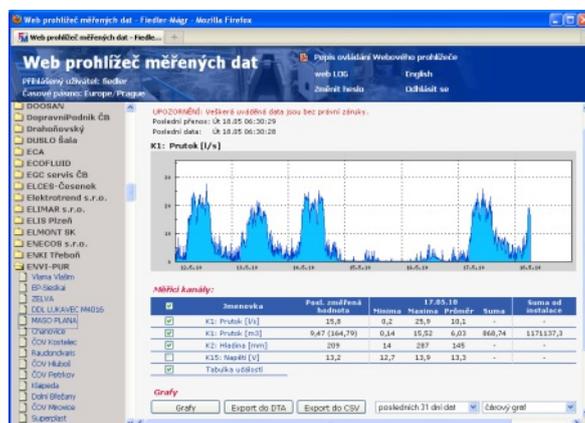
When measuring flows in open channels, in addition to the flow rate, it is also necessary to measure the level. Level sensing can be provided, for example, by a US1200 ultrasonic probe installed above the surface, or a KDO sensor containing its own hydrostatic sensor can be supplied. Communication between the US1200 probe and the Q2 / KDO registration unit also takes place via the RS485 bus.

The Q2 / KDO evaluation unit continuously calculates the instantaneous and accumulated flow and archives them on the basis of the signal on the flow rate and the level height using a defined cross-section.

Examples of use

The KDO sensor offers a modern way of measuring the flow of water in pipes or in open profiles without the need to build a measuring trough or overflow. In conjunction with the Q2-G / KDO telemetry unit, which can automatically transfer the measured data to the database on the server, it forms a report with great utility value. It can be used especially in:

- Measurement of wastewater flow at WWTPs and industrial plants.
- Monitoring of flows of smaller streams and rivers and everywhere where it is not possible to build specific profiles due to narrowing of the flow profile or insufficient height difference.



FIEDLER AMS s.r.o.

Lipová 1789/9, 370 05 České Budějovice, Czech Republic
 Tel.: +420 386 358 274, e-mail: prodej@fiedler.company

Full range of products, demo access to the data server and complete price list on www.fiedler.company

