WATER MONITORING **SOLUTIONS**

- Bidirectional measurement 0,01 $m.s^{-1}$ to 5 $m.s^{-1}$
- Velocity measurement possible in very shallow water
- RS485 ModBus or SDI-12 connection
- Low power consumption
- Velocity measurement: Temperature and speed of sound correction

Modbus RTU
SDI-12

ATEX

IECEx

HYDREKA
www.hydreka.com
A HALMA COMPANY

Presentation

The DVP sensor measures and records water velocity for open channels and part-filled pipes.
The DVP is used:

- In temporary metrology, through study and diagnosis for a better understanding of your wastewater networks,
- In permanent metrology, as part of the regulation of wastewater networks, storm overflows and wastewater treatment plants.

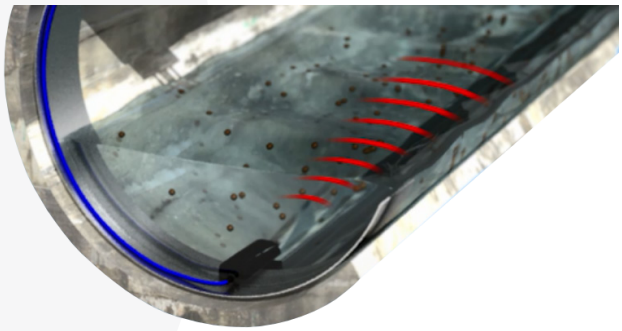
The DVP is used for the following applications:

- Wastewater networks monitoring, irrigation canals, rivers and streams,
- Survey and diagnosis,
- Flood prevention,
- Industrial discharge agreements,
- Onsite flowmeter control.

Measuring principle

Signal quality recovery :
For each measurement, the signal quality is calculated based on several criteria (flow balance, signal level...). This tool lets you know the measurement integrity for reliable your measurements.

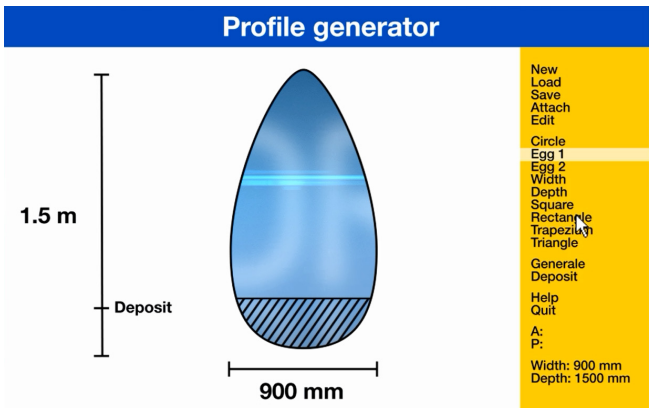
Using a Doppler-effect technology:
An ultrasonic beam is emitted, along the pipe interior, by an immersed probe. The ultrasonic signals are reflected by the suspended particles in the water. The reflected signals are then analyzed to determine the mean water velocity.

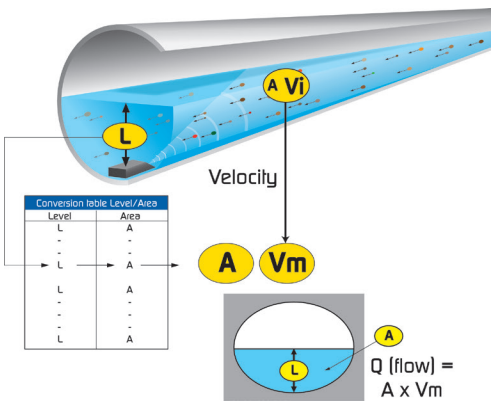


Profile generator

The DVP sensor has its own height / surface conversion tables. The flow is then automatically calculated by the DVP after transmission of a water height data via a ModBus or SDI-12 digital interface.

Whether for regular profiles (circular, rectangular, ovoidal ...) or random profile, the generator makes it possible to create the majority of the profiles encountered in the field.





Connections

Digital logger

PERAX P400Xi compatible

SCADA systems

Portable MainFLO®

Stationary MainFLO®

Samplers

Benefits

- Measurement accuracy
- Low velocity–Shallow water
- Signal quality
- Height/Surface tables included
- Waterproof
- Digital sensor
- Connection to SCADA System
- Temperature
- Installation in explosive atmosphere
- Digital filters

Technical specifications

Velocity	*Measuring principle*	DSP Doppler using twin 1 MHz transducers
	Range	Bi-directional 0.01 to 5 m/s (0.03 to 16.4 ft/s)
	Accuracy	± 2 % of reading if V ≥0.5m/s (1.64 ft/s) ± 0.01 m/s (± 0.03 ft/s) if V<0.5m/s (1.64 ft/s)
	Resolution	1 mm/s (0.003ft/s)
	Minimum fluid level	15 mm (0.59 in) to 20mm (0.79in) above base of sensor, provided transducers fully wetted
Temperature	*Range*	-10 °C to +85 °C (14°F to 185°F)
	Accuracy	± 0.5 °C (± 0.9°F)
	Resolution	0.5 °C (0.9°F)
Speed of Sound Correction		Fixed (user set) or Variable (using temperature and user input Conductivity @ 25 °C(77°F) value)
Units		m/s or ft/s
Digital Connection	*Hardware*	RS232 / RS485 / SDI-12
	Protocols	Modbus RTU / SDI-12 / # Commands
Connectors		- Free leads - Amphenol connector (metallic) - Souriau connector (plastic)
Operating mode		Single measurement or continuous measurement
Data		Velocity, Temperature, Signal quality & Diagnostics
Power supply	*External*	9-28 VDC
	Consumption	14 mA at 12 VDC on standby, 25 mA at 12 VDC for measurement
Cable length		- 10 or 20ml (32,8 or 65,6 ft) - Maximum cable length (with ATEX certification) : 100ml (328ft) - Maximum cable length (without ATEX certification) : 300ml (984ft)
Mounting		Sensor has 3 mounting points (M3) on the underside on stainless steel support
Operating temperature		-20 to +60 °C (fluid non-freezing)
Storage temperature		-20 to +70 °C
Materials		PVDF, polyurethane, 316 Stainless steel
Dimensions		19 mm (0.75 in) high * 46 mm (1.81 in) wide * 122 mm (4.80 in) long
Weight		1,1 kg for 10 meters (32,8 ft) cable
Immersion		IP68 / NEMA6
Certifications	*Provision*	II 2G Ex ib IIC T4 Gb Ta = -20°C to +60°C (-4°F to 140°F)
	Certificate Numbers	Sira 13ATEX2380X IECEx SIR 14.0051X
	Standards	IEC 60079-0:2011 IEC 60079-11:2011 IEC 80079-34:2011 ISO 9001:2008 BS 8888:2011
Warranty		24 months (up to 36 months with an extended warranty)

Products available **for sales and rental**.
Please contact us for more information.

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