



Non-contact flow monitoring for polluted respectively high polluted media in full pipelines

The NivuGuard 2 sensor is for flow monitoring in full pipelines by using a specially developed Doppler method. Thanks to the clamp-on technology the sensor can be installed very quick and easy from the outside. The integral signal evaluation allows to operate the sensor without transmitter. The sensor can be set up directly by using a free software. The very robust enclosure is perfect for use in harsh ambient conditions. Due to clamp-on installation the NivuGuard 2 can be moreover used on pipelines conducting highly abrasive and aggressive media.

Featuring cost-efficient commissioning and variable areas of use the measurement system is mainly suitable particularly for retrofitting. The

NivuGuard 2 can be used on pipes made of plastic, stainless steel, steel or cast iron.

Der optionally available NivuGuard Monitor serves as indication instrument and provides more signal outputs. The sensor can be set up as well by using the Monitor's large keypad.

## **Typical Applications**

Dry run protection and flow monitoring

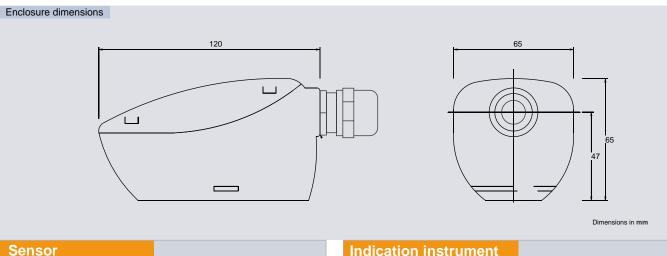
- pump lines
- sludge lines
- wastewater pipelines





\_ Transmitter / Sensors

## **Specifications**



Sensor	
Measurement principle	Doppler method
Enclosure material	investment cast stainless steel
Protection	IP67
Recommended cable	min. cable cross section 0.5 mm <sup>2</sup> ,
	shielded; cable diameter 6-12 mm
Power supply	18 - 28 V DC,125 mA
Operating temperature	-20° to +70° C
Reproducibility	± 5% typical,
	depending on application
Particle size	>100 µ
Particle concentration	>200 ppm
Pipe diameter	DN50 - DN350
Max. pipe wall thickness	up to 20 mm
Pipe material	metal or plastic
Velocity range	0.3 m/s to 4 m/s
Analog output	1 x 4 - 20 mA, scalable
Digital output	1 x potential-free alarm relay
Programming	via RS232
Communication	RS485 Modbus RTU

Indication instrument	
Power supply	230 V AC + 5% / - 10% 50/60 Hz
Protection	IP66
Operating temperature	-20° to +50° C
Analog output	1 x 4 - 20 mA, scalable
Digital output	2 potential-free relays



## **Software NivuGuard 2 PC**

The free software NivuGuard 2 PC is the ideal setup tool for flow monitoring with the NivuGuard 2. The simple and intuitive user interface allows to quickly set up the measurement. The software indicates all current readings at one sight and can be used for diagnostics as well as for parameter backup.

