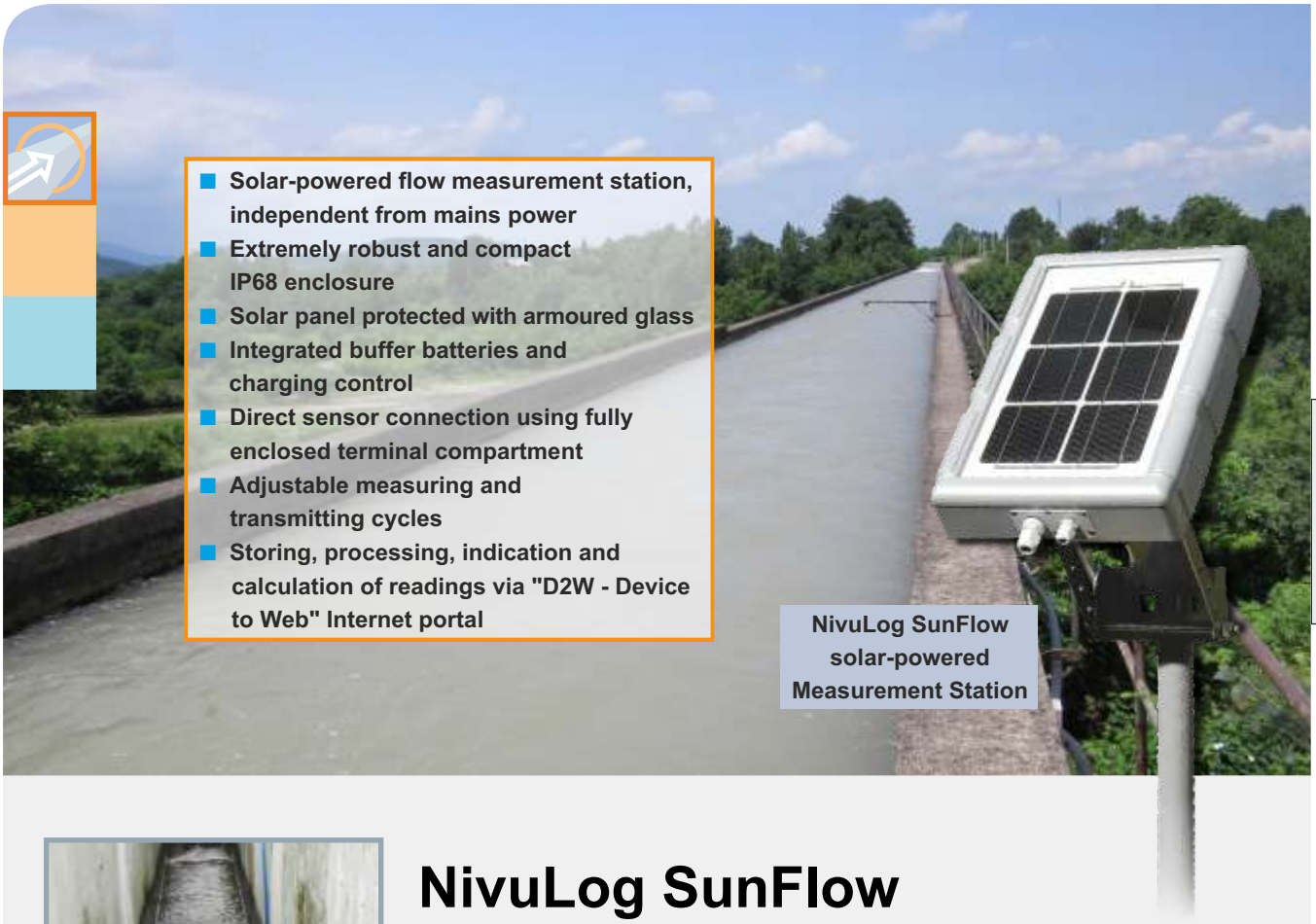
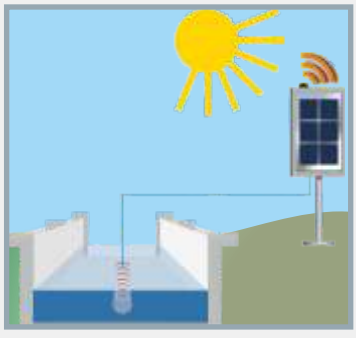


- **Solar-powered flow measurement station, independent from mains power**
- **Extremely robust and compact IP68 enclosure**
- **Solar panel protected with armoured glass**
- **Integrated buffer batteries and charging control**
- **Direct sensor connection using fully enclosed terminal compartment**
- **Adjustable measuring and transmitting cycles**
- **Storing, processing, indication and calculation of readings via "D2W - Device to Web" Internet portal**

NivuLog SunFlow solar-powered Measurement Station



Typical applications: flow measurement in stormwater tanks, channel networks, irrigation channels, pit water purification plants, stream water etc.

NivuLog SunFlow

The NivuLog SunFlow is a self-sufficient, solar-powered flow measurement station independent from mains power with integrated GPRS data transmission. The discontinuous flow measurement is suited for slight to heavy polluted media in open channels, flumes as well as in part filled and full pipes.

The NivuLog SunFlow is designed for flow measurement, storage and transmission of data in locations without mains power supply. The very robust aluminium cast enclosure with IP68 protection is covered with armoured glass and contains all necessary components such as data logger, modem, charging control and rechargeable batteries. Thanks to the compact construction it is perfectly suited for use in free and rough terrain. A Doppler flow velocity sensor with integrated level measurement is connected directly to the system.

Moreover there are 4 multifunctional inputs (analog/digital) available. These inputs allow to connect e.g. external level measurements or float switches for measurement release. Readings are saved in free adjustable cycles and are transmitted to the data recording system "Device to Web" via GPRS. The measurement place parameters can be set via D2W as well. This allows a quick start-up. The NivuLog SunFlow represents an interesting and cost-efficient alternative to the conventional control cabinet with solar panel.

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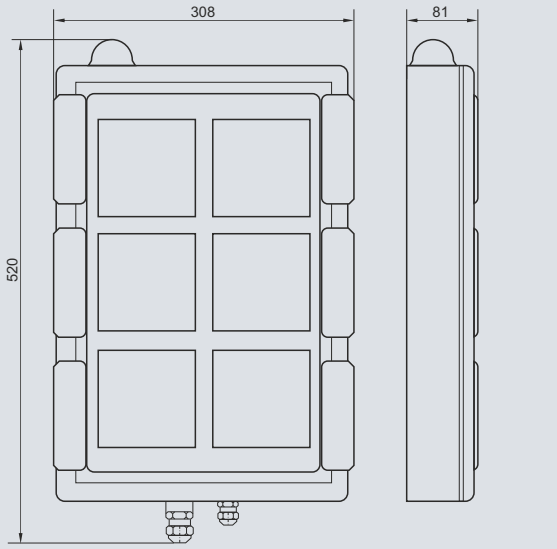
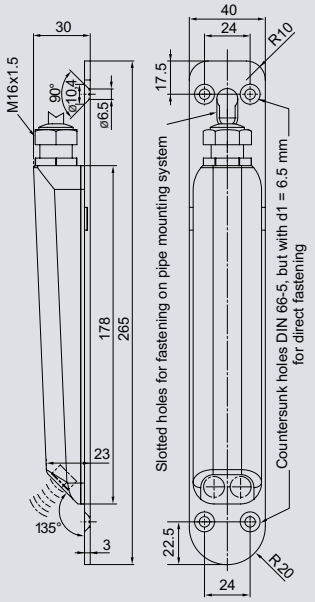
Specifications

Transmitter

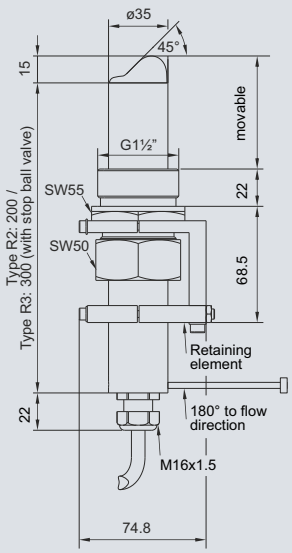


Dimensions in **mm**

Wedge Sensor



Pipe Sensor



Dimensions in **mm**

Transmitter

Power supply	10 W solar panel and 2 rechargeable batteries (13.6 Ah each)
External additional charging voltage (optional)	7 to 30 V DC (typical 170 mA/12 V) Solar panel can be supported by external voltage during charging process
Enclosure	• material: Aluminium casting, armoured glass • weight: 15 kg (incl. batteries) • protection: IP68
Operating temperature	-40 to +60 °C, 15 to 90 % rH, non-condensing
Storage temperature	-40 to +85 °C
Antenna	permanently mounted dome antenna
Sensor connection	1 active compact Doppler sensor Type KDS connectable (flow velocity; combi sensor with additional level measurement)
Multi-functional inputs	4 x analog or digital (can be mixed): 0 to 20 mA; 4 to 20 mA; 0 to 2 V; 0 to 10 V; frequency; digital; day counter; interval counter
Outputs	1 x switchable sensor power supply 24 to 31 V DC, max. 41 mA
Data memory	internal flash memory for up to 14.030 measuring cycles
Data transmission	using GSM/GPRS quad band modem to according Device to Web server
SIM	permanently integrated long-life SIM chip
Accessories	
Mast holder set	robust mast holder set for fastening and adjustment of the measurement station on a mast with 70 - 90 mm diameters, adjustable angles for 20°, 29°, 37° or 45°
Material	stainless steel 1.4571

Sensors

Measurement principle	• Doppler (flow velocity) • piezo-resistive pressure measurement (level measurement)
Meas. frequency	• wedge sensors 1 MHz • pipe sensors 750 kHz
Protection	IP68
Operating temperature	-20 °C to +50 °C
Operating pressure	• combi sensor with pressure measurement (only wedge sensor): max. 1 bar • sensors without pressure measurement: max. 4 bar
Cable length	10/15/20/30/50 m pre-configured (with pressure measurement cell max. 30 m)
Constructions	• wedge sensor, fastening on channel bottom • pipe sensor incl. retaining element for installation in pipes using nozzles
Flow Velocity Measurement	
Measurement range	-600 cm/s to +600 cm/s
Meas. uncertainty	±1 % of final value of measurement range
Zero point drift	absolutely stable zero point
Sonic lobe	±5 degrees
Temperature Measurement	
Measurement range	-20 °C to +60 °C
Meas. uncertainty	±0.5 K
Level Measurement - Pressure	
Measurement range	0 to 500 cm
Zero point drift	max. 0.75 % of final value (0 to 50 °C)
Meas. uncertainty	(standing medium) <0.5 % of final value

You can find more information in the instruction manual or on **www.nivus.com**

Specifications subject to change
H:\NivuLog\hlm0-SunFlow-db-en.cdr / Rev. 03 - 28.01.2019

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