

Radar Doppler sensor for continuous water surface flow or discharge measurement

Application area

The Radar Doppler Surface Flow Sensor is the ideal sensor for all applications in water flow and discharge monitoring applications. It is particularly suitable for flow measurement in open flumes river and lakes, coastal as well as offshore areas. It is an economical solution through versatile and simple mounting options. The flood-proof IP 68 housing ensures a maintenance-free permanent operation. The usage of remote sensing technology eliminates the installation, corrosion & fouling issues associated with submerged sensors. Additionally, accuracy and performance are unaffected by changes in water density and atmospheric conditions.



Radar Doppler Surface Flow Sensor can be interfaced to either the LOG_aLevel Tide Gauge or to the ULS UltraLab Advanced Field controller.

For applications where directional surface flow information is needed, a dual Radar Doppler Surface Flow Sensor set and an additional software module are necessary.

Discharge measurement can be done in combination with any high resolution airborne ultrasonic or radar based water level sensor of General Acoustics product range.



Your benefit

- ✍ Maintenance-free operation
- ✍ easy deployment because of the small size
- ✍ High plant availability
- ✍ High accuracy
- ✍ Results independent of ambient conditions Calibration
- ✍ -free Easily interfaced to LOG_aLevel system
- ✍ Direct interface to ULS UltraLab Advanced Field controller
- ✍ Dual Setup for directional surface flow measurements
- ✍ Highly adaptable to the application due to separate flow and water level measurement sensors
- ✍ additional flow sensors increase discharge accuracy at complex flows
- ✍ Hydrographic interpolation of ADCP surveys with LOG_aFlow software enables accurate setup and discharge hydrographs even at complex or changing flows



Deployment on Offshore Platform in the North Sea, Germany.

TAE KWANG ELECTRONICS CORP.

5TH FLR., K-BLDG., 3, SANGAM-RO 41-GIL, GANGDONG-GU, SEOUL 05307, KOREA
PHONE : 02 479 2703 FAX : 02 479 2705 e-mail : taekwang@tkec.co.kr www.tkec.co.kr

Radar Doppler Surface Flow / Discharge Sensor DRF40

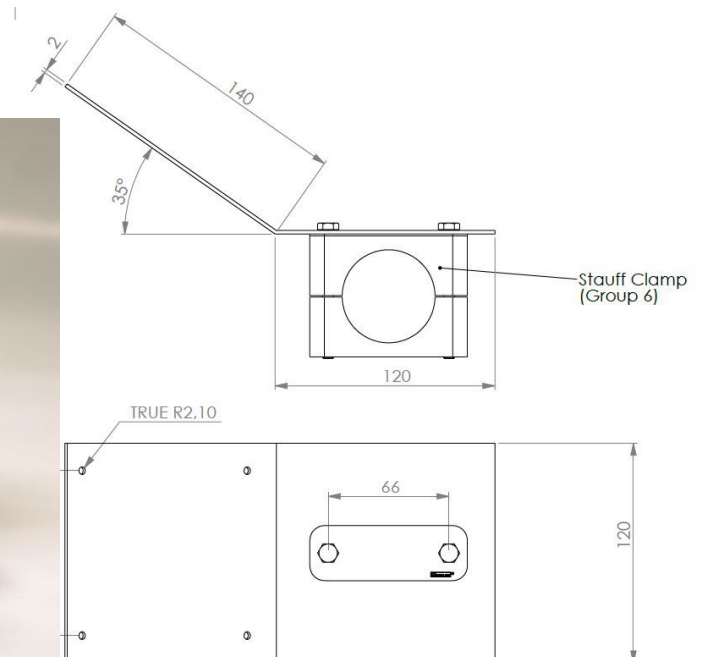


Technical data

Frequency:	24 GHz
Antenna pattern:	horizontal 11° (side-lobe suppression 15dB) vertical 11° (side-lobe suppression 15dB)
Measurement range	±0.1 to ±15 m/s (depending on flow conditions), higher ranges on demand
Flow Resolution:	0.05 m/s
Flow Accuracy:	+/- 1 %
Distance to water surface:	up to 40m (depending on flow conditions)
max. Measuring rate:	1Hz
Level Measuring range:	up to 40m (depending on external sensor)
Level Measuring rate:	up to 10 Hz (depending on external sensor)
Necessary minimum wave-height:	3mm
Interface:	RS-485 (up to 230kBd)
Power supply:	6.5 ... 32 VDC 80mA
Power consumption:	(at 12 VDC)
Dimensions	122x120x57 mm.
Weight	700gr (sensor) , 500gr (railing mount)
Housing:	IP65 (higher IP on request), powder coated Aluminium or PC (UV stabilized)
Operating temperature:	-20°C to +65°C

The specifications depend on the sensor deployment angle.

Country of Origin: Germany



TAE KWANG ELECTRONICS CORP.

5TH FLR., K-BLDG., 3, SANGAM-RO 41-GIL, GANGDONG-GU, SEOUL 05307, KOREA
PHONE : 02 479 2703 FAX : 02 479 2705 e-mail : taekwang@tkec.co.kr www.tkec.co.kr