

RQ-30

COMPACT SYSTEM

Contact-free discharge measurement
with integrated data logger and GPRS /
GSM communication



Properties and benefits

- ✓ Maintenance free
- ✓ No structural construction in water needed
- ✓ Fully operating even in flood water situation
- ✓ Low power consumption allows solar cell instigation
- ✓ Detection of flow direction
- ✓ Measurement range from +/- 0.10 to +/- 15 m/s (depending on flow conditions)
- ✓ Recognition of hysteresis effects
- ✓ Measurement in back water situation
- ✓ Measures also vegetal invasion
- ✓ Measurement in tide dependent rivers
- ✓ Integrated communication GPRS / GSM
- ✓ Integrated data logger

Technical Data

General	
Dimensions (mm)	430 x 419 x 202 (2 brackets for pipes Ø 34 – 48 mm)
Total weight	19.5 kg
Protection	IP 66
Accumulator capacity / voltage	24 Ah / 12 V
Recommended solar panel for the middle latitudes	20 W
Current consumption (active)	150 mA (total system)
Current consumption (standby)	3 mA (total system)
Operation temperature	- 20° ... 60° C
Lightning protection	Integrated lightning protection
Level measurement	
Level range	<ul style="list-style-type: none"> • 0 ... 15 m - standard version • 0 ... 35 m - extended version
Resolution	1 mm
Accuracy	+/- 2 mm
Radar frequency	26 GHz (K-Band)
Radar opening angle	10°
Velocity measurement	
Range	0.10 ... 15 m/s (depending on flow conditions)
Accuracy	+/- 0.01 m/s; +/- 1 % FS
Resolution	1 mm/s
Direction recognition	+/-
Measurement duration	5 ... 240 sec.
Measurement interval	8 sec. ... 5 h
Measurement frequency	24 GHz (K-Band)
Radar opening angle	12°
Distance to water surface	0.50 ... 35 m
Data communication module	
Supported networks	Quad band EGSM 850 / 900 / 1800 / 1900 MHz networks
Transmission power	Class 4 (2W) with 850 / 900 MHz Class 1 (1W) with 1800 / 1900 MHz
GPRS	Asynchronous, transparent, circuit-switched communication method up to 14.4 kbps Asynchronous, non-transparent, circuit-switched communication method up to 9.6 kbps
Data transfer	<ul style="list-style-type: none"> • FTP server: CSV or xHydro format via ftp protocol • MDS server: CSV format via http protocol. MDS server is a complete solution, including database, station- / user management and data visualization via web browser.
Data logger	
Storage	Up to 600,000 values