

RQ-30 ADMS

Autonomous Discharge Measurement System

All-In-One: Autonomous Discharge Measurement System with integrated Data logger with remote data transmission and battery supply



Properties and benefits

- ✓ Measurement of discharge, water level and surface velocity
- ✓ 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)
- ✓ Heavy duty data logger IP67 integrated (MRL -7)
- ✓ Data transmission via 2G and 3G integrated (4G and satellite optional)
- ✓ Easy and fast installation and set up
- ✓ Perfect to create rating curve
- ✓ Possible to connect time laps camera

Introduction

Properties and benefits

The RQ-30 ADMS is an all-in-one system, suitable for spontaneous and mobile applications or for compact stationary installations.

This unit includes all elements of the convenient non contact discharge measurement of the RQ-30. Water level sensor, flow velocity sensor as well as world re-nown discharge calculation by using RQ-30.

The battery allows a self-sufficient operation for weeks. The integrated data logger with transfer function saves the data and transfers them either immediately or periodically to various addresses.



Pic: RQ-ADMS easy to transport




Pic: Installation of RQ-ADMS in the water treatment plant

In that way the user can retrieve the latest data online and therefore has an overview of the potential danger spots any time.


Additionally a notification service can be installed, which – in case of need – can inform dedicated people during their on-call service about exceedance of limit value.

The RQ-ADMS builds a complete and immediately applicable discharge measurement system. It is suitable for long-term measurements with solar supply as well as in self-sufficient operation for temporary measurement campaigns. For notification services in the event of flooding the system is suitable as well.

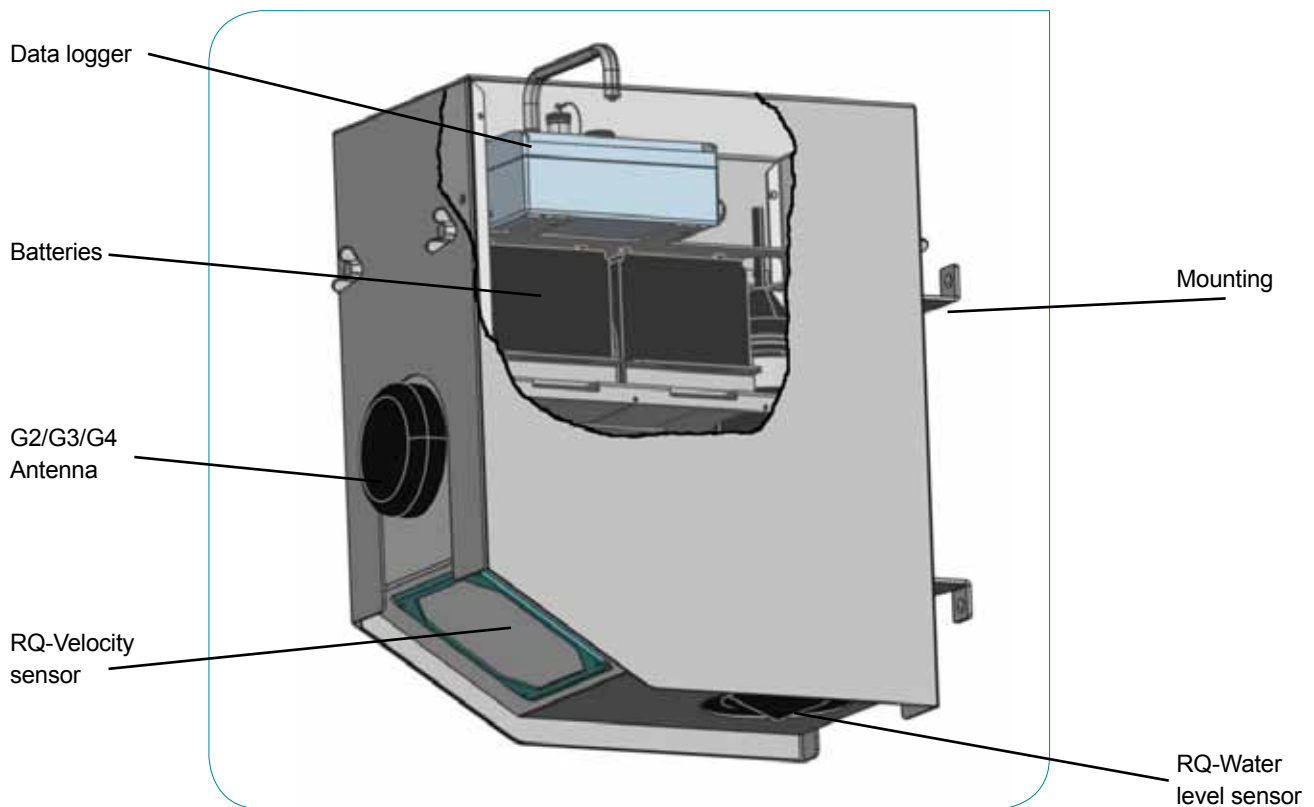
Sommer Data Logger (MRL-7)

	Interface	COM interface (RS-232), USB and Bluetooth
	Memory	failure resistant flash memory 4 MB internal (equiv. to approx. 500.000 values)
	Functions	date/aggregate/mean values, intensity, maximum, etc.
	Battery	24 Ah, rechargeable accumulator - easy to exchange, lifetime of 10 weeks at a measuring interval of 5 minutes & 2 data transmissions per day
	Additions (optionally)	Solar panel camera for time laps

Integrated Modem for Data Transmission

	Modem	remote data transmission with 2G / 3G (4G optionally) optionally: GPS for location detection
	Target server	up to three target servers (http / ftp) simultaneously
	Other characteristic	- independent transmission intervals possible - IP call activation for remote servicing - time synchronisation via NTP (Network Time Protocol)

RQ-ADMS



Pic: RQ-30 ADMS

RQ-ADMS Versions		
Reference number	20786	RQ-30 ADMS 15m (15m Range)
	20786	RQ-30 ADMS 35m (35m Range)
Accessories and options:		
Reference number	20989	Solar panel with cable and mounting
	10085	Storage battery 12 VDC / 12 Ah
	20595	Time laps camera
	20629	RQ-30 ADMS 230V / 110V charger

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)	120 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 2G/3G networks (4G optional)
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 500,000 values