

RQ-30 ADMS

Discharge Measurement System

Environmental monitoring equipment by Sommer Messtechnik



All-In-One
autonomous
discharge measurement
system
with integrated
data logger
and
remote data transmission

What is it?

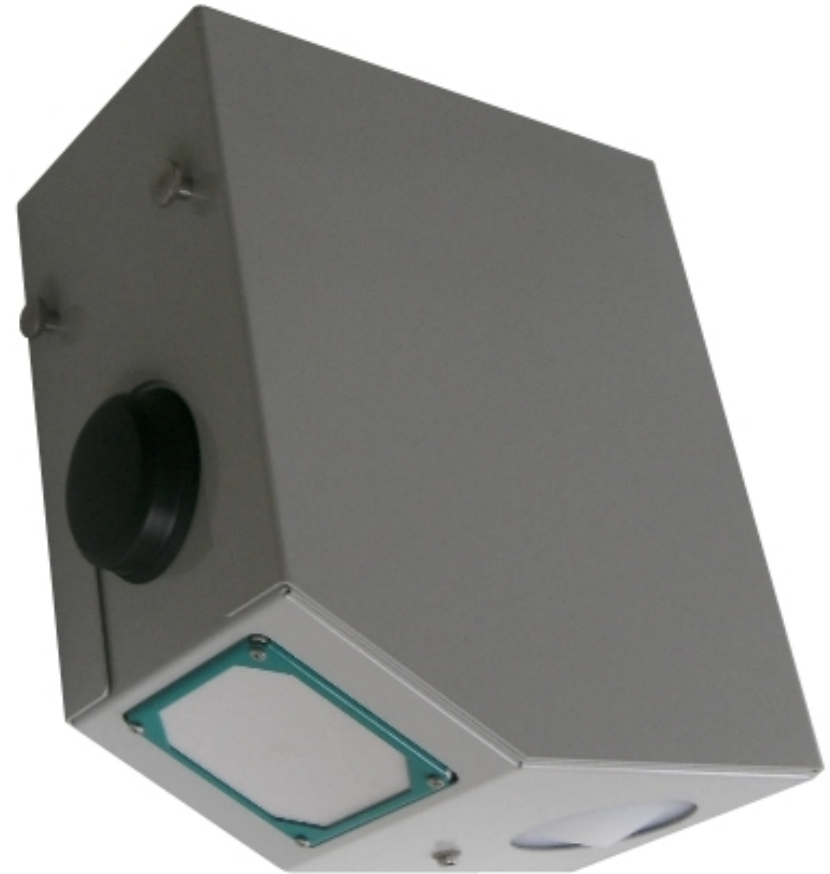
The RQ-30 ADMS is an all-in-one discharge measurement system, suitable for spot-measurements, temporary applications or stationary long-term installations. It contains the contact-free flow velocity and water level sensors of the RQ-30 and applies the same algorithms to compute the water discharge.

The rechargeable batteries allow autonomous operation for several weeks and the integrated charge controller provides for the connection of a solar panel. The data logger of the RQ-30 ADMS offers wireless data transmission to FTP and HTTP servers, and notifications by E-mail and SMS.

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

Additionally, a notification service can be configured, which informs people in charge about any violation of limit values, e.g. if there is a risk of flooding.

The RQ-30 ADMS provides a complete and immediately available discharge measurement system. It is suitable for longterm measurements with solar power supply as well as autonomous temporary measurement campaigns.



Integrated data logger MRL-7

- RS-232 interface , USB and Bluetooth
- 4 MB flash memory (equiv. to approx. 500.000 values)
- Aggregation functions: mean values, intensity, maximum, etc.
- Rechargeable 24 Ah battery; easy to exchange, lifetime power capacity up to 10 weeks at a measuring interval of 5 minutes and two data transmissions per day
- Options: solar panel, time laps camera



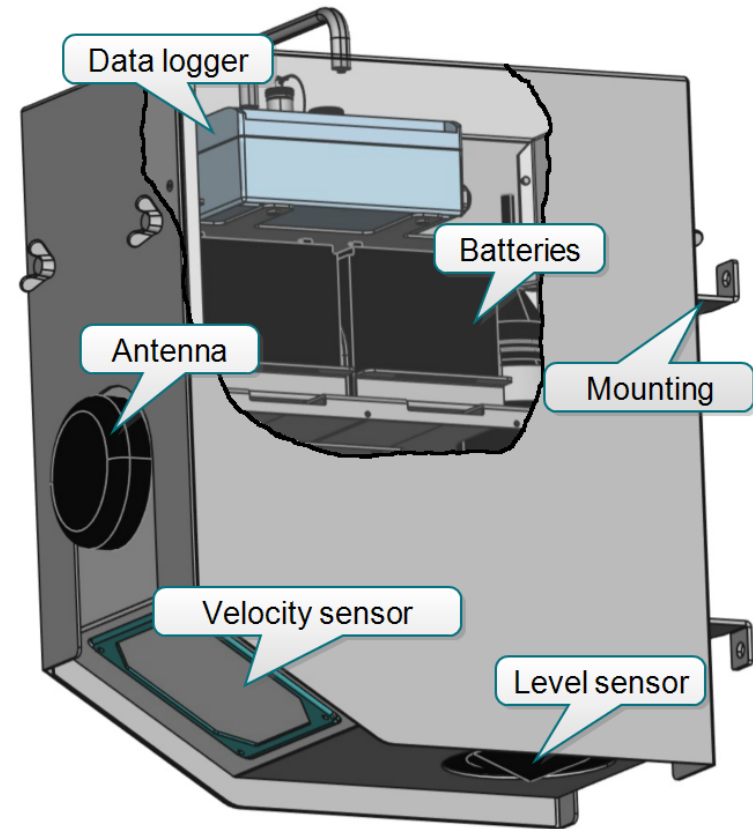
Integrated data modem

- Remote data transmission with 2G / 3G (4G optionally); optionally, GPS for location detection
- Up to three target servers; HTTP and/or FTP
- Independent user defined transmission intervals
- IP calls for remote servicing
- Time synchronisation via NTP (Network Time Protocol)



Versions

Art	Version
20786	RQ-30 Automatic discharge measurement system, 15m
20787	RQ-30 Automatic discharge measurement system, 35m



Accessories

Art	Accessory
10085*	Lead-acid battery LC-RA1212P, 12 VDC/12 Ah
20989	Solar panel 50W with 60-mm tube mount and 5-m cable
20595	Digital time laps camera
20629	RQ-30 ADMS/SQ-mobile charger

* The RQ-30 ADMS requires two batteries

Easy carrying



Technical data

Physical and environmental

Power supply	6...30 VDC; Reverse voltage protection, over-voltage protection Battery capacity 24 Ah/12 V; 20-W solar panel recommended for mid latitudes
Power consumption at 12 VDC	Standby approx. 3 mA Active measurement approx. 120 mA
Outputs	RS-485 ASCII / Modbus RTU SDI-12
Operating temperature	-35...60 °C (-31...140 °F)
Storage temperature	-40...60 °C (-40...140 °F)
Protection rating	IP66
Lightning protection	Integrated protection against indirect lightning with a discharge capacity of 0,6 kW Ppp

Physical and environmental

Housing material	Powder coated aluminum
Mounting bracket	Ø34...48 mm
Size L x W x H	430 x 202 x 419 mm (16.93 x 7.95 x 16.50 in)
Weight	15.5 kg (34.17 lb) plus 7.4 kg (16.31 lb) lead acid batteries

Dat logger and communication

Memory	4 MB internal flash memory (equivalent to approx. 500'000 measurement values) 32 GB SD-card (write only)
Mobile modem	2G, 3G (optionally 4G) 3 FTP/HTTP servers Functions: IP call, fixed IP, time-synchronization via NTP, e-Mail and SMS messages

Velocity measurement	
Detectable measurement range	0.10...15 m/s (depending on the flow conditions)
Accuracy	± 0.01 m/s; ± 1 %
Resolution	1 mm/s
Direction recognition	+/-
Measurement duration	5...240 s
Measurement interval	8 s...5 h
Measurement frequency	24 GHz (K-Band)
Radar opening angle	12°
Distance to water surface	0.50...35 m
Vertical inclination	Measured internally

Automatic vertical angle compensation	
Accuracy	± 1 °
Resolution	± 0.1 °

Water level measurement	
Measurement range (distance between level sensor and water surface)	Standard version: 0...15 m (0...49.21 ft.) Extended range: 0...35 m (0...114.83 ft.)
Resolution	2 mm
Accuracy	± 0.025 % FS
Level sensor opening angle	10°



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Subject to modifications and errors