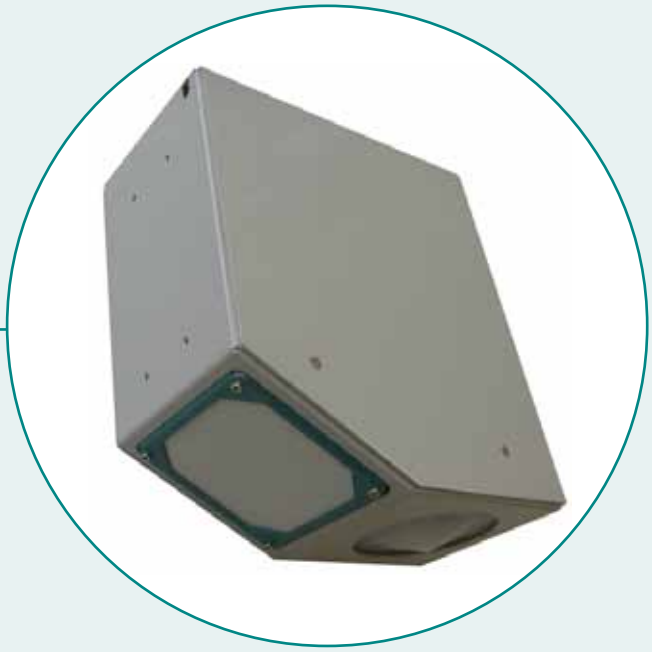
sommer
MESS-SYSTEMTECHNIK

RQ-30

Contactfree discharge measurement
for channels and open rivers with
Radar technology



Properties and benefits

- Maintenance free
- No structural construction in the water needed
- Fully functional even in flood water situation
- Low power consumption allows solar power operation
- Detection of flow direction
- Measurement range +/- 0.30 to +/- 15 m/s
- Recognition of hysteresis effects
- Measurement in back water situation
- Measures also vegetal invasion
- Measurement in tide influenced rivers
- Optional: analog outputs 4 to 20 mA

Technical Data

General	
Dimension in mm	338 x 333 x 154, 2 brackets for pipe ø 34 - 48 mm
Total weight	5.4 kg
Protection	IP 67
Power supply	6 V ... 30 V
Consumption at 12 V	Standby appr. 1 mA active measurement about 140 mA
Operation temperature	- 35° ... 60° C
Storage temperature	- 40° ... 60°
Lightning protection	integrated lightning protection

Level measurement	
Level range	• 0 ... 15 m - Standard version • 0 ... 35 m - Extended version (option)
Resolution	1 mm
Accuracy	+/- 2 mm
Radar frequency	26 GHz (K-Band)
Radar opening angle	10°

Velocity measurement	
Range	0.30 ... 15 m/s
Accuracy	+/- 0.02 m/s; +/- 1 %
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
Necessary minimum wave height	3 mm

Automatical Vertical Angle Compensation	
Accuracy	+/- 1°
Resolution	+/- 0.1 °

Interface		
Analog Output (RQ-30 a)	3 x outputs 4 - 20 mA for level, velocity and discharge	
Interface	Interface: Transfer rate: Protocol: Output:	SDI-12 RS 485 1,2 to 19,2 kBd various ASCII-Protocols discharge, flow velocity, level, quality flag