

# RG-30, RG-30a

## Flow velocity Measurement System



The RG-30 radar sensor is a measurement device for the contact-free determination of the flow velocity of open rivers and channels. The sensor detects the surface flow velocity by the principle of the Doppler frequency shift.

Due to the contact-free measurement method the RG-30 can be installed on extension arms without costly structural measures in the channel or river. This also has the advantage that the sensor is located outside the danger area of flood events and that it requires little maintenance over many years.

- Automatic discharge calculation based on hydraulic model with multiple k-factors.
- Sensor self check with status and error output.
- AI-based machine learning for compensation of environmental influences and early detection of errors.
- 3-point velocity calibration certificate.
- Advanced velocity diagnostics with spectrum display
- Discharge calculation inside the RG-30.
- Water level and velocity sensor combined in one weather and vandalism proof housing.

### Versions

Art	Version
17191	RG-30 System for contact-free flow velocity measurement 0.1...15 m/s
17192	RG-30a System for contact-free flow velocity measurement 0.1...15 m/s, analog output

### Scope of delivery

Qty	Art	Item
1	-	RG-30 in the required version
1	-	Manual and Commander Software on USB stick

### Accessories

Art	Accessory
18711	Data cable for RQ-30 / RG-30, LiYCY 12x0,25mm <sup>2</sup> , 10 m
18712	Data cable for RQ-30 / RG-30, LiYCY 12x0,25mm <sup>2</sup> , 20 m
15833	Data cable for RQ-30 / RG-30 / SQ, 12x0,25 mm <sup>2</sup> , up to 60m
15543	Data cable for configuration and testing of RQ-30 / RG-30 / SQ
20074	RG / RQ standart mouniting set, 2x U-bolt max. Ø60 mm
20470	Q-Commander software V1.0

### Specifications

Physical and environmental	
Power supply	6...30 VDC; Reverse voltage protection, overvoltage protection
Power consumption at 12 VDC	Active measurement approx. 110 mA
Outputs	RS-485 ASCII / Modbus RTU SDI-12
Operating temperature	-40...60 °C (-40...140 °F)
Storage temperature	-40...60 °C (-40...140 °F)
Relative humidity	0...100 %
Protection rating	IP 67
Lightning protection	Integrated protection against indirect lightning with a discharge capacity of 0,6 kW Ppp
Housing material	Powder coated aluminum, vandalism-proof

### Physical and environmental

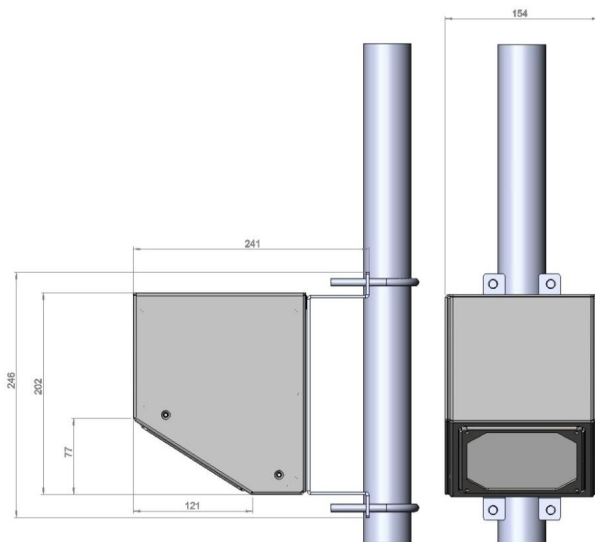
Mounting bracket	Ø34...48 mm
Size L x W x H	241 x 154 x 246 mm (9.49 x 6.06 x 9.69 in)
Weight	2.7 kg (5.95 lb)

### Velocity

Detectable measurement range	0.08...16 m/s (depending on waves)
Accuracy	± 0.01 m/s (certified by METAS)
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...130 m
Vertical inclination	Measured internally

### Automatic vertical angle compensation

Accuracy	± 1 °
Resolution	± 0.1 °



proudly distributed in the USA by  
[www.hydrologicalusa.com](http://www.hydrologicalusa.com)

**HSA** HYDROLOGICAL  
SERVICES AMERICA  
KISTERS GROUP