

# 200M UNDERWATER GEIGER-MÜLLER INSTRUMENT

The GM-instrument contains a GM-tube and associated electronics, housed in a **rugged plastic shell**, and is submersible down to **200 m**. The main purpose is the **detection of gamma and beta radiation**. The instrument is delivered with a **pigtail cable** with a female connector that mates to the instruments male connector. The instrument **weight is close to zero** when submerged in water.



*GM Instrument*

## TECHNICAL SPECIFICATIONS

Housing material: PET  
Max. operating depth: 200 m  
Displacement: 1100 cm<sup>3</sup>  
Operating voltage: 10.5–15 V<sub>DC</sub>  
Current consumption: 200 mA  
Minimum dead time: 90 μs  
Coincidence correction: Optional  
Data rate: Once per second  
Weight (without cable): 1100 g  
Instrument connector: Subconn BH6M  
Interface: RS422/RS485 with 120 Ω termination  
GM tube: LND 712, LND Inc. operating at 500 V<sub>DC</sub>  
Pigtail connector type and length: Subconn IL6F, 600 mm  
Dimensions (excl. connector): ∅ 80 mm, l 248 mm  
Data format: Serial, 9600 baud, 8 databits, 1 stop bit, no parity, no handshake

## INTERFACE

The output data contains the number of counts during the last second, and the data is **transmitted periodically every second**. The interface transmits **serial data** according to the **RS422/RS485** standard.

## DATA FORMAT

The count value is transmitted every second as two consecutive bytes by the serial interface. The first byte contains the lower 7 bits of the count value as bits 0–6, and have bit 7 cleared. The second byte contains the higher 7 bits of the count value as bits 0–6, and have bit 7 set (high).

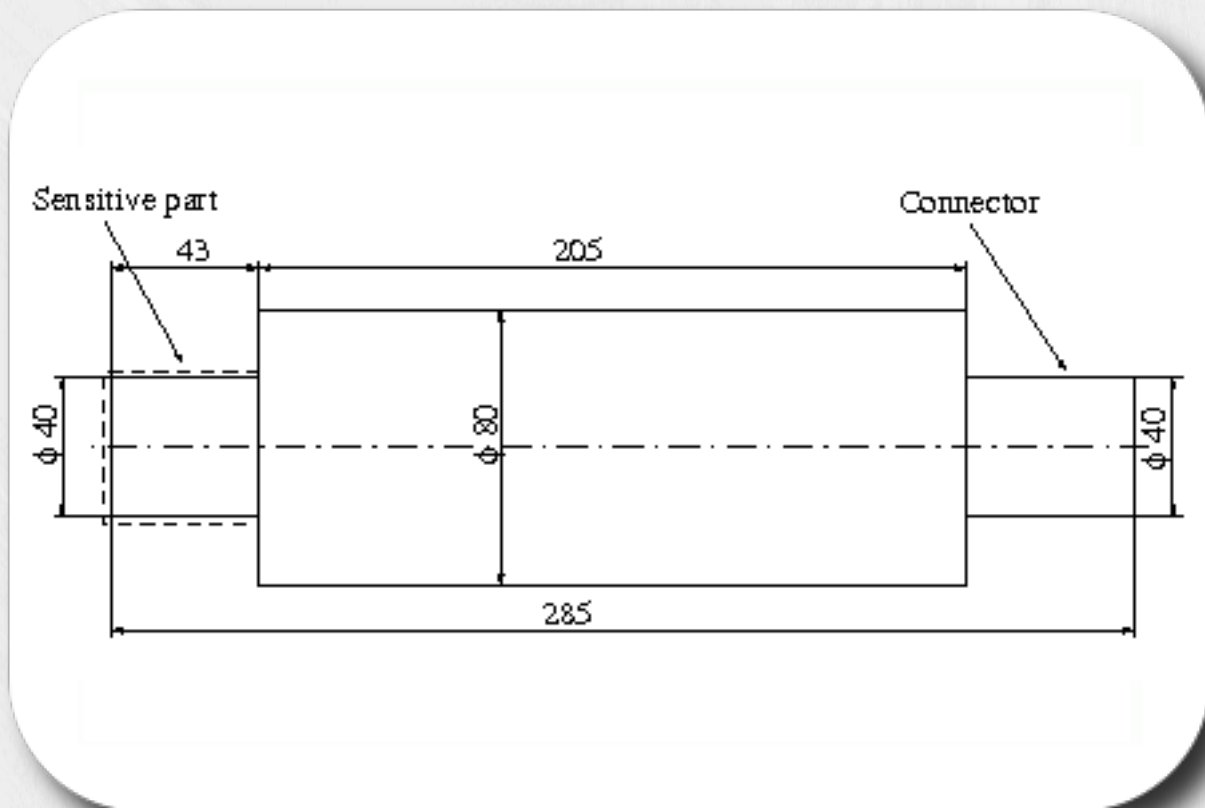
## CONNECTOR PINS

Pin #	Function
1	Power and signal ground
3	Data output A
4	Data output B
6	Power supply, +12 V <sub>DC</sub>



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## BLUEPRINT



*Mechanical dimensions*

