

Flowmeter calibration

The number of impulses per liter indicated in the data sheet was determined using water under laboratory conditions. Due to the dependence on various factors, this value should be considered as a guideline. The following factors can have a direct impact on the number of impulses per liter:

- Diameter of the nozzle
- Viscosity of the medium
- Temperature of the medium
- Type and hardness of the pipes (e.g., hoses, tubes)
- Conveyance method (e.g., pump, pressure vessel)

We recommend calibrating our flowmeters within your complete system under real conditions.

Calibration Instructions

1. Preparation

- Place an empty container with a capacity of approximately 1 liter on a scale and then tare it.

2. Performing the Measurement

- Allow the liquid to flow into the container and record the number of impulses.

3. Record Weight

- Weigh the filled container again and note the weight in grams [g].
 - Example: The weight of the medium (water) is 885 g.

4. Calculate Impulses per Gram

- Calculate the impulses per gram [Imp/g] by dividing the measured weight by the number of counted impulses.
 - Example: With 723 impulses and a weight of 885 grams, the calculation is:
 $723 \text{ Imp} \div 885 \text{ g} = 0.817 \text{ Imp/g}$.

For the weight per impulse [g/Imp], divide the measured weight by the number of impulses:

◦ Example: $885 \text{ g} \div 723 \text{ Imp} = 1.22 \text{ g/Imp}$.

5. Calculate Impulses per Liter

- To obtain the impulses per liter [Imp/l], multiply the calculated impulses per gram [Imp/g] by the specific weight of the medium [g/l].
 - Example: $0.817 \text{ Imp/g} \times 1000 \text{ g/l} = 816 \text{ Imp/l}$ (Specific weight of water: 1000 g/l).

6. Configuration of the Electronics

- Configure the electronics/control system with the calculated value of impulses per liter.