

Flow meter

 **DF820i** Battery-Powered Totalizer

Description

The DF820i is a battery-powered flow measuring system, which combines a flow sensor (DF100 or DF170) and a battery-powered read-out unit. The products have been combined to form a compact unit.

This system has been specially developed to measure a fluid flow without the need for an external power supply. It works based on the rotor principle. The rotor consists of five vanes in which magnetic plates have been cast. The flowing fluid causes the rotor to move, which generates current impulses in the magnetic field sensor, which is fitted in the flow sensor's body. The minimum flow rate is 0.25 m/s.

The system can measure the flow in any direction. The concentration of solid particles in the fluid must not exceed 2-5% of the volume. The fluid's viscosity must be 0.5-20 cSt. The read-out consists of a 6-figure LCD display with a figure height of 9 mm and an adjustable decimal point.

The integrated, replaceable lithium battery has a lifespan of at least 2 years. There are various fittings available for installing the flow sensor in a pipe and if the sensor is a DF170, a tapping saddle can be used.

Specials:

In contrast to its predecessor, the DF820i is equipped with electronics developed by INEL and a processor that can be programmed by INEL. The advantage of this is that the software can be customized, to suit the customer's specific wishes, such as batch-control options. The read-out is also available as a unit separate from the sensor with a cable up to 3 metres in length.

Materials

The parts are available in the following materials:

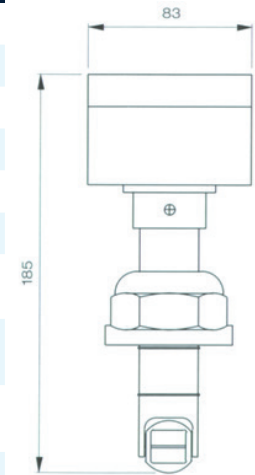
- Flow sensor body: PVC, PP, PVDF and stainless steel 316
- Rotor: E-CTFE (HALAR) as standard
- Rotor shaft and bearings: Ceramic (AL2O3)
- Seal (O-ring): EPDM or Viton

Fittings for the DF100 model are available in various materials. The DF170 model is suitable for assembly in combination with a tapping saddle and can be used in pipes with an internal diameter of between d50 and d315.

Technical specifications

Technical specifications DF820i

Supply voltage:	Integrated lithium battery
Battery lifespan:	At least 2 years
Ingress protection:	DIN 40050, IP54
Weight:	Approx. 285 g
Read-out:	6-figure, 7-segment, LCD
Figure height:	9 mm
Operating temperature:	0 °C to 60 °C (PVC) up to 90 °C (depending on the choice of material)
Relative humidity:	90% non-condensing according to DIN 40042
Accuracy:	+/- 1% across the entire measurement range
Reproducibility:	+/- 1% across the entire measurement range



Display:

