The solution for non-conductive liquids

Flow meters for aqueous media HM-E & HMP-E

When nothing else works

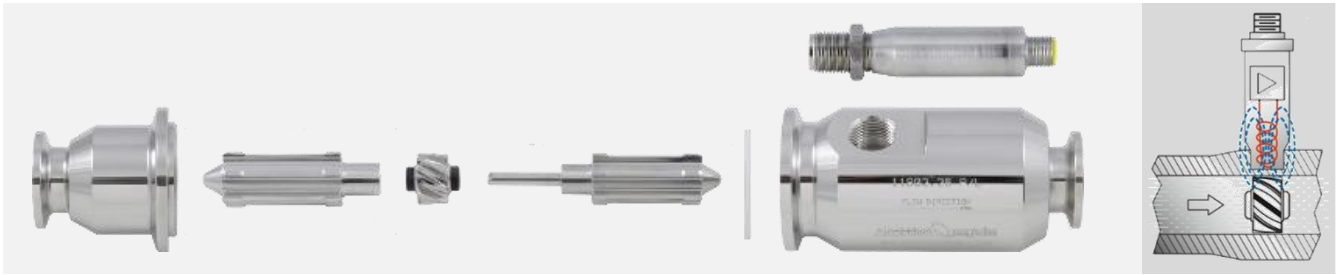
The HM-E / HMP-E turbine flow meter with non-contact pulse measurements is the reliable, precise, and economical alternative for mass flowmeters or electromagnetic flowmeters.

HME / HMP-E is suitable for aqueous fluids such as filtered fruit juice or beer, alcohols, light oils, salt solutions, cleaning media, and acids, but also exhaust condensate, process water, demineralized water, and WFI.

- **Compact and robust:** Massive turbine housing made of stainless steel - insensitive to thermal influences, space-saving, insensitive to vibration
- **Hygienic & 3A-compliant:** 2-piece housing, specifically designed for sanitary applications, eliminates the need for internal locking rings to retain internal components. This ensures easy cleaning and maintenance, and results in improved cleanability, straightforward design, and a lower risk of product contamination
- **Non-contact pulse measurement:** A signal probe generates an electromagnetic field that interacts with the rotating turbine rotor blades to produce a precisely measurable induction current
- **Durable:** The combination of Rulon 123™ sleeve bearing and 316L stainless steel shaft withstands even difficult process conditions, steam blowdowns and autoclaving
- **Fast:** The low mass moment of inertia of the turbine wheel ensures a fast response time of less than 50 ms. Even rapid flow rate changes can be detected without any problems
- **For Food and Life Science:** Two versions that are specifically adapted to the respective requirements of the food and pharmaceutical industries

Technical specification at a glance

- **Measuring range from 1 600 l/h** (DN25) up to **56 750 l/h** (DN50)
- **Accuracy: ±0,5% of measured value**
- Compact design with Tri-Clamp connection in pipes from DN25 (1") (DIN 11850 / ASME BPE)
- **Process temperature up to 120 °C permanent**
- **CIP-cleaning without time limit** / SIP-cleaning up to 135 °C (275 °F) , max. 120 min.
- **Continuous operation** through easy rotor replacement and recalibration
- For media with max. viscosity 100 cP and particle size < 20 µm



The solution for aqueous, non-conductive media and WFI: HM-E / HMP-E

Order Code

HM-E (Turbine flowmeter for food applications; additionally required: signal probe HTE000)

HMP-E (Turbine flowmeter for pharmaceutical applications; additionally required: signal probe HTE000)

Tube nominal width

025	(DN25 / 1")
040	(DN40 / 1½")
050	(DN50 / 2")

Tube standard

1	(DIN 11850 Series 2 or DIN 11866 Series A)
2	(ASME BPE)

Model

00	(standard)
01	(3/4" NPT threaded connection for integral display)

HMP-E	**050**	**1**	**00**

Technical data HTE

Signal probe HTE000	Process	Max. 120 °C (248 °F, higher temperatures on request)
	Environment	-40...+85 °C (-40...185 °F)
	Measuring principle	Eddy current
	Mechanical connection	5/8"-18 (UNF-20)
	Supply voltage	8...24 V DC; 0.8 watt max.
	Electrical connection	M12
	Signal cable	3-core, shielded, max. 150 m
	Signal	PNP pulse output, unscaled Duty cycle (low/high): 60:40 V_{max} = supply voltage - 0.7 V V_{min} = 0.5 V
	Frequency range	0...1000 Hz, depends on flow rate and nominal width
	Output unit	Pulses per volume

Pharmaceutical version (HMP-E)

· Material specification in agreement with ASME BPE standards
· Surfaces with product contact are electropolished (Ra ≤ 0.5 µm)
· Certificates are included with the delivery: materials, calibration, USP Class VI for Rulon™ and sealing materials

Optional:
· Measurement protocol for surface roughness and delta ferrite content

NEGELE MESSTECHNIK GMBH
Raiffeisenweg 7
87743 Egg an der Guenz

Phone +49 (0) 83 33 . 9204 - 0
Fax +49 (0) 83 33 . 9204 - 49
sales@anderson-negele.com

Tech. Support
support@anderson-negele.com
Phone +49 (0) 83 33 . 9204 - 720