

DOSING TECHNOLOGY

MID-MDS DOSING MODULES

Modular dosing system (MDS) for filling conductive liquids in filling machines fitted with electromagnetic flowmeters.

Principle of measurement

Electromagnetic flowmeters belong to the group of direct volumetric meters. They work according to the Faraday principle. They work according to the Faraday principle. In contrast to all other magnetic-inductive flow meters available in the market, they work in an alternating field instead of a synchronised DC field. This enables higher measuring dynamics and faster, precise measurements for dosing filling timing down to 100 ms.

Application

Their function is based on conductive liquids ($>1 \mu\text{S}/\text{cm}$) in filling machines. These machines are mainly used in the food and beverage industry as well as in the pharmaceutical and fine chemicals industry. Among others, milk and dairy products (also with pieces of fruit), ketchup, mayonnaise, mustard, sauces, dressings, cleaning and washing agents, medical products (e.g. stomach gels), sterile injection products and cosmetics are measured.

Characteristics

- easy cleaning in comparison with piston fillers (CIP/SIP)
- easy adjustment of filling quantities
- no shear forces are applied to the product



MID-MDS



Special features

- shortest dosing times less than 100 ms possible
- small dimensions of the sensor
- complete system for linear and rotative filling machines
- wide range of filling quantity with various diameters
- direct control of the dosing valve
- CIP / SIP cleaning
- change of flow transmitter without re-programming possible

Batch controllers

- MID-MDS system to control the filling (measurement and valves)
 - up to 540 electromagnetic meters series MID and valves
 - with communication interface RS232 to communicate with the PLC
- MDS-Terminal to configure and visualize the MID-MDS system
- UV14 converter module to use custom PLCs
- MID-PLC to build up small filling application up to 4 meters and 4 valves

Technical data

Nominal size	DN10 up to DN40
Process connections	Tri-Clamp, hygienic connection for milk, sterile connections, sterile mini flange
Material	stainless steel
Conductivity	>1µS/cm
Flow ranges	0.25 m/s to 10 m/s
Repeatability	±0.1 % (depends on the flow range)
Process temperature	up to 95°C – cleaning up to 140°C (up to 203°F – cleaning up to 284°F)
Process pressure	up to 16 bar
Ex-Protection	not available

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