



The Better Alternative to Piston Fillers:

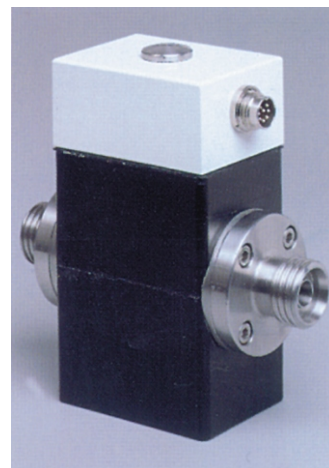
- modular dosing system MID-MDS
- with magnetic-inductive flowmeters
- for precise fast dosing

The magnetic-inductive flowmeter (MID) is increasingly displacing piston fillers in packaging machines for liquid products. The MID's have the following advantages over mechanical piston fillers:

- no moving mechanical parts, no gaskets
- no mechanical forces are applied to the product, which can cause product changes
- nearly no pressure loss, wear-free
- no wake spaces, CIP/SIP procedures up to 140 °C
- compact size and light weight
- simple adjustment of batch quantities at the operator terminal, no exchange of the flowmeter (MID).

The MID-MDS dosing system not only allows batching of small quantities of approx. 1 ml (MID DN 10; approx. 0.3 sec), but also larger quantities of 5 l and more can be dosed.

There are many examples of diverse application in food, pharmaceutical and cosmetics industries, with more than 2200 MID- MDS systems installed. This proves that more companies now prefer the versatility of this technique.



Available range

MID Flowmeters type MID

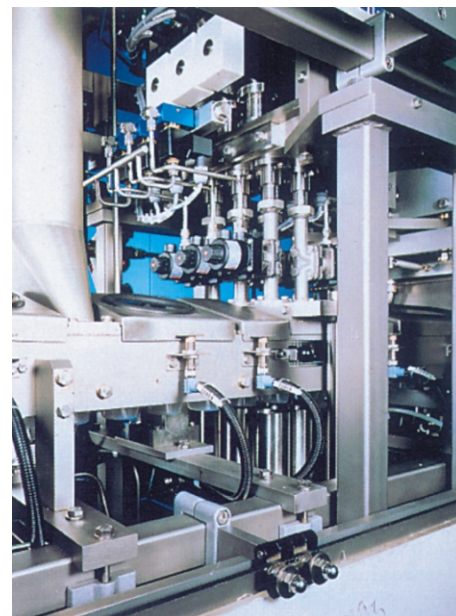
DN 10 - 15 - 20 - 25 - 32 - 40,
with following connections:

- Sanytary connections acc. DIN 11851
- Aseptic connections acc. DIN 11864-1 *
- Tri Clamp acc. DIN 32676 *
- Tri Clamp acc. DIN 11864-3 *

with 3A approval

The built-on preamplifier with plug/socket connection (IP 68) is detachable. recalibration when reinstalling is not necessary. The dimensions of the flowmeters are space-saving and allow an installation side by side (a raster/grid of 60 or 80 mm). The MID needs a power supply of 24 VAC; at the output of the converter card a pulse frequency of 50 kHz at 10 m/sec product velocity is supplied.

Filling machine for
yoghurt; flowmeter
MID DN 10 for
quantities of 125 ml
yoghurt in
approx. 0.8 sec.



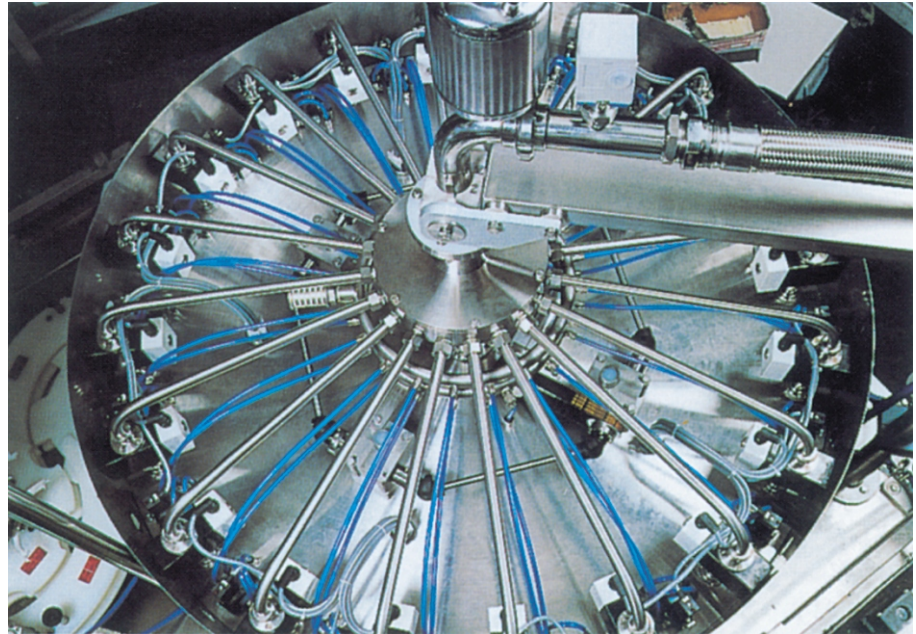
Minimum requirements for a dosing line:

a flowmeter (MID) and a converter card UV-12, which converts the measuring signal to a frequency proportional to the flowrate, is needed. This card (in European format; 100x160 mm) can be directly controlled by a programmable logic controller (PLC). With the terminal adapter cards series QB the connections among MID, converter card and PLC can easily be made.

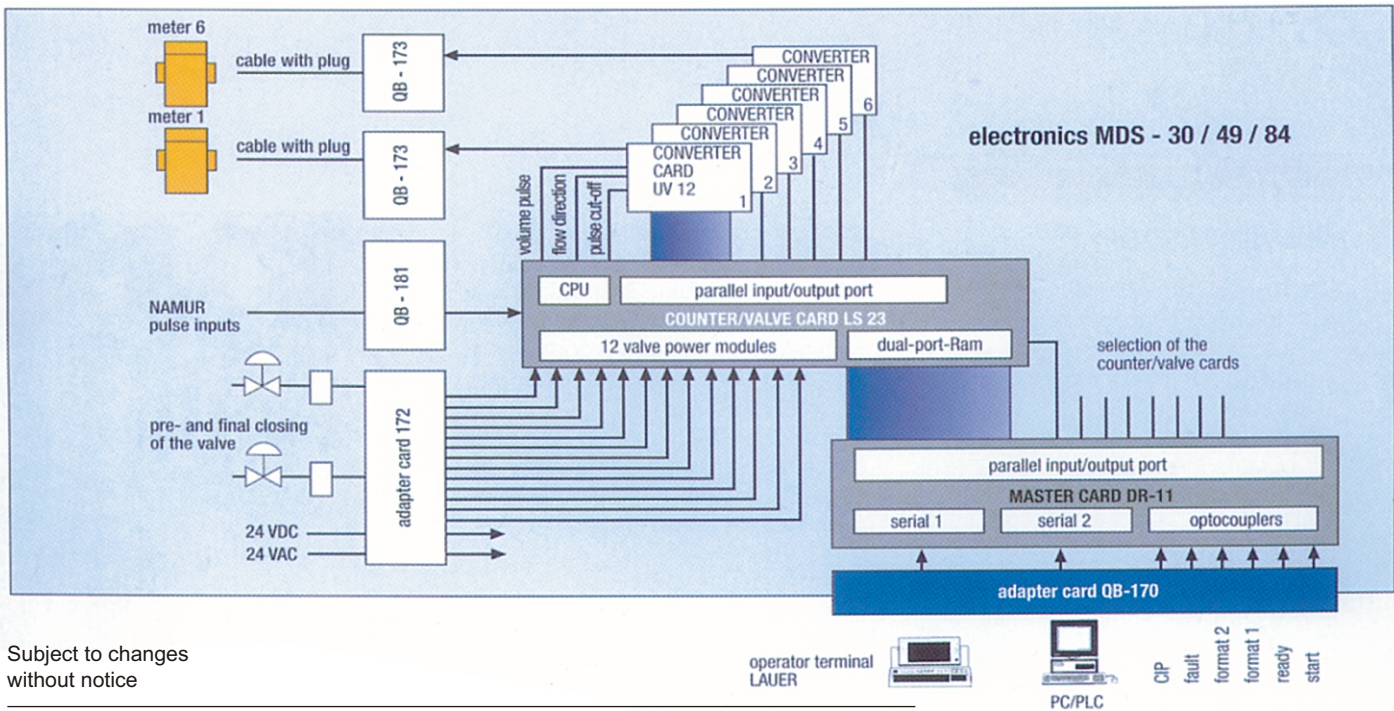
Then using a complete MID-MDS-dosing-system

the counting of pulses is made by a combicard LS-23 (with six channels for counting, and 12 outputs for valve control); see block diagram. The operator terminal or PLC/PC is connected to the master card DR-11. The electronics are installed either in a housing for panel mounting

- MDS-30 for 6 dosing lines (192x144x250 mm)
 - MDS-49 for 12 dosing lines (288x144x250 mm)
 - MDS-84 (19" rack) for 18 dosing lines (483x133x250 mm deep)
- All cords are connected to terminal adapters series QB, which make the connection among flowmeters, valves and external electronics very easy.



DN Filling machine with 18 MID DN 15. The MID-MDS dosing electronics are working with a resolution of 28.3 pulses/ml.



Subject to changes without notice

**Bopp & Reuther
Messtechnik GmbH**
Postfach 1709
67327 Speyer
Am Neuen Rheinhafen 4
67346 Speyer
Phone +49 (6 232) 657-0
Telefax +49 (6 232) 657-505