

General

The MEMDOS E / DX combines the properties of the MEMDOS series working reliably for many years with the latest requirements in metering technology. Due to an improved flexibility and the further development of individual components, it can be integrated even more efficiently in metering processes. Heads and diaphragms are the same as for the existing pumps so that the continuity of spare parts keeping and service is ensured. Two models of the MEMDOS are available, each with or without microprocessor control. The smaller version can be used for capacities from 0...4 to 0...160 l/h and the larger version for capacities from 0...160 to 0...380 l/h. Pressures are admissible between 4 and 10 bar, depending on the size.

If no control is required for constant metering, the motor is connected directly to the terminal box. In this case, MEMDOS E pumps are used. Three-phase and a.c. motors are available. To change the metering capacity, either the stroke length can be adjusted mechanically or the speed of the three-phase motor can be controlled by means of a separate frequency converter.

The microprocessor-based MEMDOS DX is used if the pump is to be integrated in controls or automatic control systems. The intelligence of the MEMDOS DX is derived from the well-proved series of MAGDOS DE/DX solenoid metering pumps. It allows the adaption to a large number of different control signals and system monitoring equipment. It controls the chemical supply in two ways, for example: tank level control with alarm signal and low level indication. The signals required for external activation of the pump can be simple voltage-free closing contacts from water meters or controllers or analog 0(4)...20 mA signals. Depending on the version, the MEMDOS DX can be adjusted continuously between 0 and 142 strokes/min. for internal control. A single stroke follows each contact. In addition, the stroke frequency can be changed by pulse division or multiplication.

Metering head

MEMDOS pumps can be equipped with a PVC, PP or stainless steel head. Other materials are available upon request.

The diaphragms are made of chemically and mechanically resistant materials. EPDM with a protective PTFE coat (Teflon) and a textile reinforcement are vulcanized onto a large-surface insertion part.

Suction and discharge valve are fitted with two valve balls each for double sealing.



For media with a viscosity of more than approx. 400 mPa*s spring-loaded single-ball valves should be used (opening pressure approx. 0.1 bar).

Separating chamber

The diaphragm flanges have been designed so that, in the case of a diaphragm rupture due to wear, no chemical enter the gear but is routed downwards through a drain pipe. A leakage probe according to data sheet MB 1 31 01 can be fitted in order to detect the failure and cause the pump to stop.

Drive

To operate the pump three-phase or a.c. motors can be used for MEMDOS E pumps. The intelligent MEMDOS DX pumps with control unit are always equipped with a single-phase a.c. motor. The gearbox is made of light but inherently stable and high-alloyed cast aluminum. It contains a single-stage worm wheel set running in an oil bath just as the roller bearings. Metering happens while the push rod is displaced by means of an eccentric. The suction stroke is caused by the resetting of the spring.

To set the metering capacity by manual stroke adjustment, the spring-loaded diaphragm rod is locked at the corresponding position. Thus an adjustment range of 1:10 is possible.