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## **New modular pump for the liter range**

Materials, fluid connections and drives are configurable

HNP Mikrosysteme presents the micro annular gear pump mzs-11548X1 as an extension of the modular pump series. It allows accurate displacement volumes from 100 µl to 1,000 ml in a metering time of 200 milliseconds up to one minute. It also covers a flow rate range of 0.2 to 1152 ml/min. Different materials are available for wetted parts. The pump operates with high dynamics, low pulsation and excellent precision in delivery as well as high repeatability in metering. The pump is suitable for low to high viscosity liquids and a differential pressure of up to 10 bar. Other pump series are available for applications with different requirements.

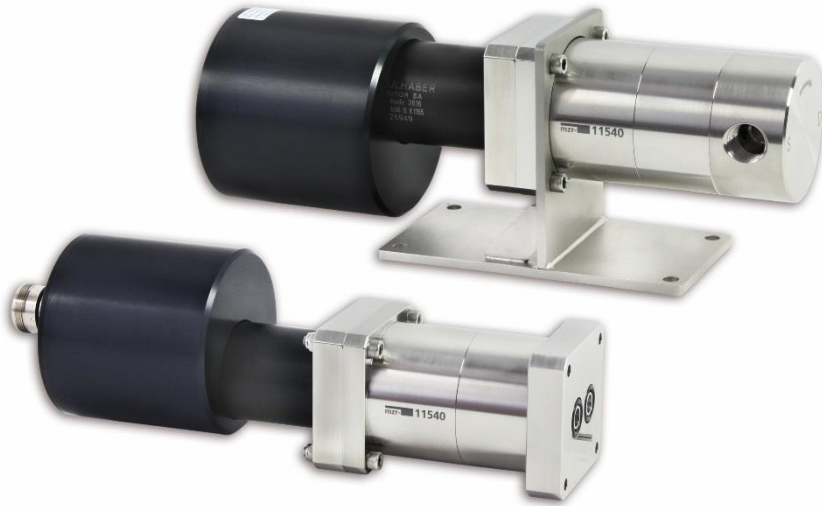
The pump is supplied with lateral fluid connections and a pump bearing bracket or with a so-called M4 version. The manifold version M4 has frontal fluid connections and allows assembly to a manifold which is supplied by HNP or provided by the customer. Alternative drives are available and external, customer-specific control is just as possible as an integrated control system. This diversity offers the plant engineer high flexibility and best conditions to integrate the micropump into the overall system.

In mechanical engineering, in the medical device sector, the chemical and pharmaceutical industry, in coating technology and in additives, the pump will fulfil precise dosing and filling tasks. Application examples are the grease and adhesive application, mixing of form release agents, dosing of food additives and metering of foaming agents or silicones.

### **HNP Mikrosysteme**

German company HNP Mikrosysteme GmbH develops, manufactures and markets pumps worldwide which do small amounts of liquids fast and accurately. Beside several applications at plant engineering, chemical processing and pharmaceutical industry, mzs-pumps are used in the field of life science and analytical instrumentation.

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Modularity creates optimal conditions for integration into dosing and filling systems  
*hnpm\_modulare\_Pumpe\_mzr-11548\_20cm-Schatten.jpg*

We kindly invite you to visit us at international fair **MOTEK**, Stuttgart, H 7 **booth 7.306**.