

## Product information

### Terminal box S-G05 · Controller



#### Description

The terminal box S-G05 is easy to handle and at the same time versatile applicable accessory for micro annular gear pumps. The terminal box allows control of the pump with a potentiometer. As an alternative the pump can be remotely controlled with an external analog voltage signal 0–10 V, an external current signal (0–20 mA or 4–20 mA) or with a RS-232 interface. To set all operating parameters including calibration, ramp, step, speed, dispense/pause times and flow direction an adapted software with a serial interface RS-232 is delivered. The CE-conform installation includes an EMC module. The terminal box and micro annular gear pump can be provided optionally with an external 24 V DC power supply.

#### Advantages

- For connection of micro annular gear pumps  
mzr-2505/2905/4605/7205, mzr-7245, mzr-6355/7255,  
mzr-2965/4665/7265
- Compact plastic case
- Easy handling  
potentiometer, standard connectors
- Standard interface  
0-10 V, 0(4)-20 mA
- Serial interface RS-232
- Two-colored LED status indicator
- 24 V power supply over screw terminal or DIN socket
- Integrated EMC module

## Technical data

Supply voltage	24 V DC (12 – 28 V)
Voltage	plug terminal, 8-pole and DIN 45323 socket
Pump connector	plug connector, 8-pole
Serial interface	RS-232, SUB-D plug, 9-pole
Speed value-input »Analog Extern«	internal potentiometer 10 k $\Omega$ ?; voltage signal 0 – 10 V; current signal 0 – 20 mA or 4 – 20 mA
Status LED	Ready: green; fault: red
Output »Fault Out«	Open collector max. UB / 30 mA; no error: connected to GND; as input: low 0...0.5 V / high 4 V...UB
Protection class	IP 20
Operating temperature range	0 ... +50 °C (+32 ... +122 °F)
Dimensions (L x W x H)	approx. 100 x 92 x 35 mm
Weight	approx. 125 g
Remarks	Subject to technical changes.

### Notice

Even if single parameters are within the indicated performance range of technical data, certain parameter combinations may not be achievable. Single parameters may exceed their indicated performance range under adequate circumstances. For detailed evaluation please contact HNP Mikrosysteme. Actual performance may vary. Specifications are subject to change without notice.

## Patents and trademarks

Micro annular gear pumps (and housings) are protected by assigned patents: EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 001 041 B4; CN 103 348 141 B; US 10,012,220 B2; CN 103 732 921 B; US 9,404,492 B2; US 6,520,757 B1. HNP<sup>®</sup>, m<sub>z</sub>r<sup>®</sup>, MoDoS<sup>®</sup>,  $\mu$ -Clamp<sup>®</sup>,  $\mu$ Dispense<sup>®</sup>, Centrifluidic Technologies<sup>®</sup>, LiquiDoS<sup>®</sup>, smartDoS<sup>®</sup>, ColorDoS<sup>®</sup> are registered German trademarks of HNP Mikrosysteme GmbH.

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