

## Product information

### S-HP-E · Controller



#### Description

The controller S-HP-E is recommended for high requirements in control of discrete dosage and continuous delivery tasks in combination with mzs pumps mzs-7208 and mzs-11508. The microcontroller allows speed and position control for highly accurate dosage. The compact design offers flexible installation. Process control link can be established via a RS-232 or CANopen interface. Motor speed or flow rate can be set either by analog inputs ( $\pm 10$  V). Programs for dosage control can be saved in the memory.

#### Advantages

- Pump controller for discrete dosage and continuous delivery
- Compact housing
- 4-Q-DC servo amplifier
- Digital encoder regulator
- 2 analog inputs  $\pm 10$  V
- 10 digital inputs, opto-decoupled
- 5 digital outputs, open collector
- Two colored LED status indicator
- Cable set for mzs-pumps
- EEPROM memory
- RS-232, CANopen interface

## Technical data

Controller	PI-controller, speed and position control
Supply voltage	48 V DC (20 – 55 V)
Backup supply voltage for logic	24V DC
Max. power output	720W
Max. continuous output current	10A
Max. peak output current	20 A (< 1 s)
Velocity range	1 - 6,000 rpm
Voltage	header and plug, 5-pole
Pump connector	SUB-D plug, 15-pole; header and plug 5-pole
Analog inputs for motor speed	2, voltage signal $\pm 10V$
Digital inputs	10, opto-decoupled, high (12 ... 24 V)
Digital outputs	5, open collector max. 24 V / 15 mA
Interface	RS-232, CANopen (DSP 301, DSP 402)
Program memory	2 KB
Operating temperature range	0 ... +40 °C (+32 ... +104 °F)
Protection class	IP 20
Mounting	along the side or along the back
Dimensions (L x W x H)	approx. 150 x 105 x 25.4 mm
Weight	approx. 640 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> are registered German trademarks of HNP Mikrosysteme GmbH.

## Contact

HNP Mikrosysteme GmbH  
 Bleicherufer 25  
 19053 Schwerin  
 Germany

T +49 385 52190-300  
 F +49 385 52190-333  
 info@hnp-mikrosysteme.de

Last update 2019/07