# Product information

S-F10 · Controller

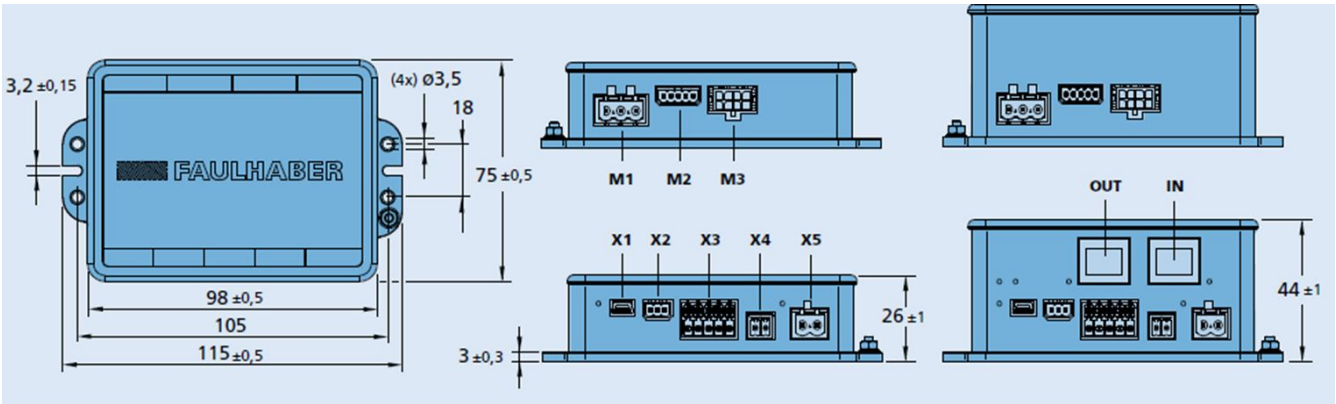
## Description

The controller S-F10 is recom-mended for high requirements in control of discrete dosage and continuous delivery tasks in combination with mzr-pumps mzr-7208, mzr-7208X1, mzr-11508 and mzr-11558. 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, CANopen or EtherCAT interface. Motor speed or flow rate can be set either by analog inputs (± 10 V). Programs for dosage control can be saved in the memory.

### Advantages

- Pump controller for discrete dosage and continuous delivery
- 4-Q-DC servo amplifier in compact housing
- Digital encoder regulator
- 2 analog inputs ± 10 V
- 3 digital inputs, opto-decoupled
- 2 digital outputs
- LED status indicator
- Cable set for mzr-pumps
- EEPROM memory
- Interface USB/RS-232, USB/CANopen, USB/RS-232/EtherCAT

## Dimensions

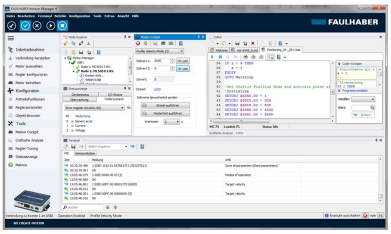


## Technical data

| | |
|---|---|
| Control | PI-controller, speed and position control |
| Supply voltage | 48 V DC (0 – 50 V) |
| Backup supply voltage for logic | 24 (12 – 50 V) V DC |
| Max. power output | 480 W |
| Max. continuous output current | 10 A |
| Max. peak output current | 30 A (< 3 s) |
| Speed adjustment | 1 – 6000 rpm |
| Voltage | terminal screw, 2 pole (Motor)<br>terminal screw, 2 pole (Controller) |
| Pump connector | terminal screw 3-pols, Connector Hall sensors 5-pols, connector Encoder 8-pols |
| Analog inputs for motor speed | 2, voltage signal ± 10 V |
| Digital inputs | 3, TTL bzw. PLC |
| Digital outputs | 2, max. UL / 0,7 A |
| Interface | USB / RS-232, CANopen, EtherCAT |
| Program memory | 8 customized programs |
| Operating temperature range | -40 … +85 °C (32 … 104 °F) |
| Protection class | IP 20 |
| Mounting | along the side or along the back |
| Dimensions (L x W x H) | approx. 115 x 75 x 26 (44) mm |
| Weight | approx. 230 (270) g |

**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. This document is subject to change without notice.

## Software




All motor parameters for pump control can be set and saved with the software »Motion Manager 6« operating under Windows®. The program language is IEC-based. Dosage programs can easily be typed on a computer and transferred to the EEPROM. Several sample programs are supplied such as the triggering of different dosage programs with the internal digital inputs.

## Patents and trademarks

Our products are protected by the following national and international patents: DE 10 2018 129 631.2 B3; EP 3 884 162; CN 113 302 399 B; DE 10 2018 129 633.9 B3; EP 3 884 160; CN 113 272 553 B; DE 10 2018 129 634.7 B3; EP 3 884 527; DE 10 2018 129 635.5 B3; EP 3 762 165; DE 10146 793.1; EP 1 354 135 B1; US 7,698,818 B2; DE 10 2011 051 486 B4; EP 2 726 740 B1; US 9,404,492 B2; CN 103 732 921B; EP 2 640 977 B1; US 10,012,220 B2; CN 103 348 141 B; HK 1 185 648 B.
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