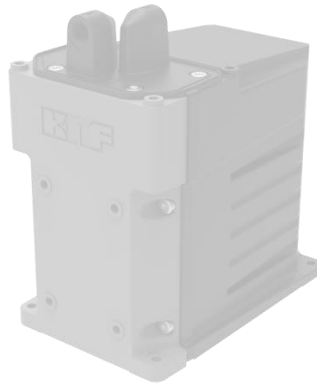
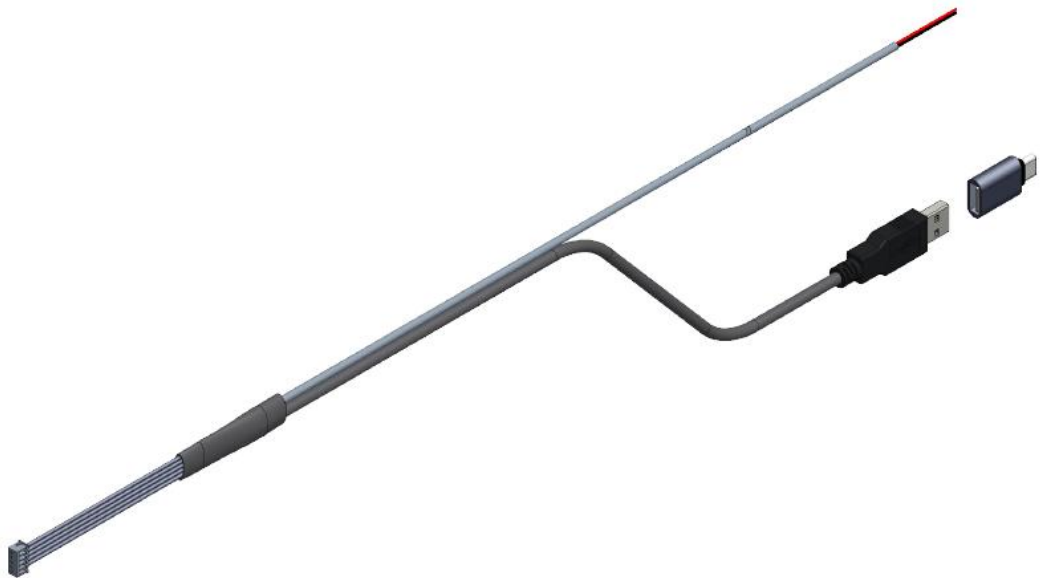


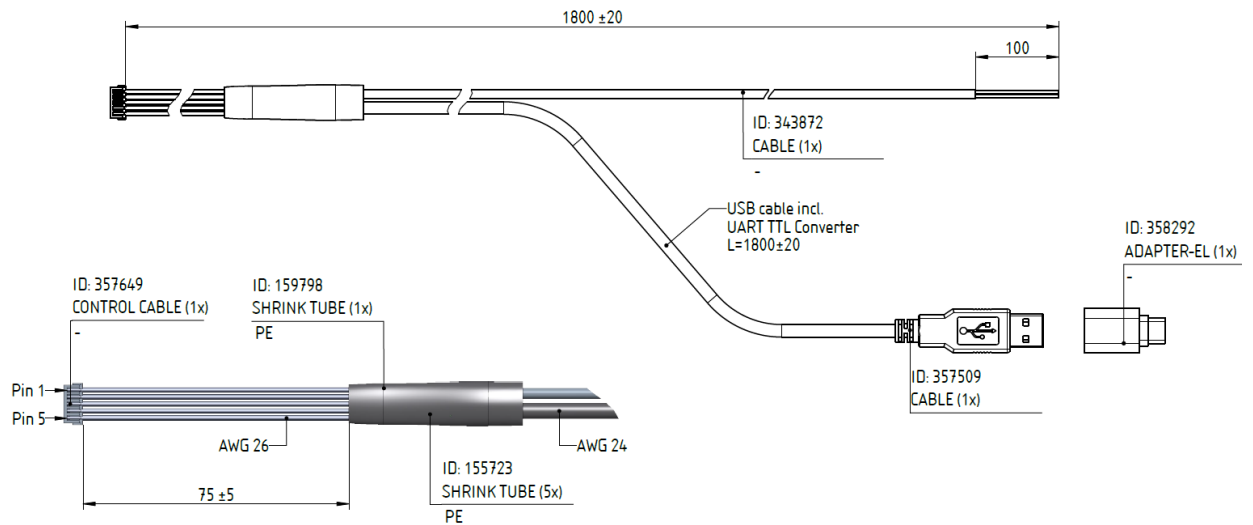
FD 1.200 Quick-Start Guide

Starter-Kit Cable UART-TTL to USB



Please read the installation instruction carefully before starting to use the FD 1.200.

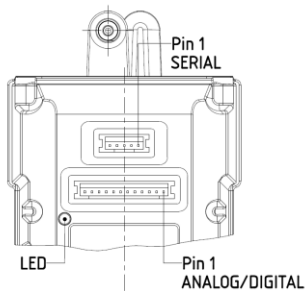
Starter-Kit cable



1 Interface overview

Serial interface on the pump (5-pin connector)

Socket: JST, manufacturer no. B5B-PH-SM4-TB



Nr.	Description	Function
PIN 1	24 V	Power supply
PIN 2	GND	GND for power supply
PIN 3	Serial GND	GND for serial communication
PIN 4	Serial COM 2	Tx (send)
PIN 5	Serial COM 1	Rx (receive)

Analog / digital interface on the pump (12-pin connector)

Refer to the datasheet or the operation instructions.

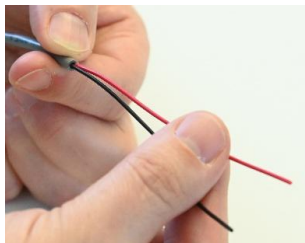
2 Getting started with KNF Connect

KNF Connect is a web-based service that runs in a web browser and is accessed via the internet. It allows the users to control the pump and evaluate perfectly fitting settings for their application. Simply use this Starter-Kit cable to connect the FD 1.200 to a Microsoft Windows-based computer for an easy plug-and-play setup.

1. Plug the 5-Pin JST connector of the Starter-Kit cable into the corresponding socket on the pump.
Connect the USB plug on the other end to your device (e.g. laptop).



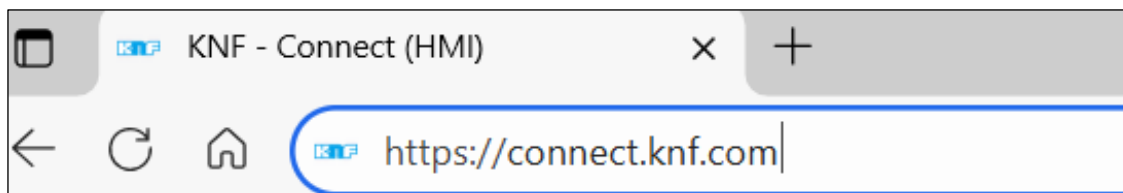
2. Provide power by connecting the wires of the Starter-Kit cable to an appropriate 24 VDC power supply (e.g. benchtop power supply). Red (Pin 1) = 24 VDC / Black (Pin 2) = GND



NOTICE

The power supplied via the included USB cable is not sufficient to operate the pump. A separate power supply is therefore mandatory.

3. Open your preferred web browser and navigate to «connect.knf.com».



4. If required, download and install the *KNF Connect Driver* on your system. This step is only required once for all KNF Connect based systems and pumps. It might be necessary to update the *KNF Connect Driver* to the latest version. This will be indicated by a red dot.

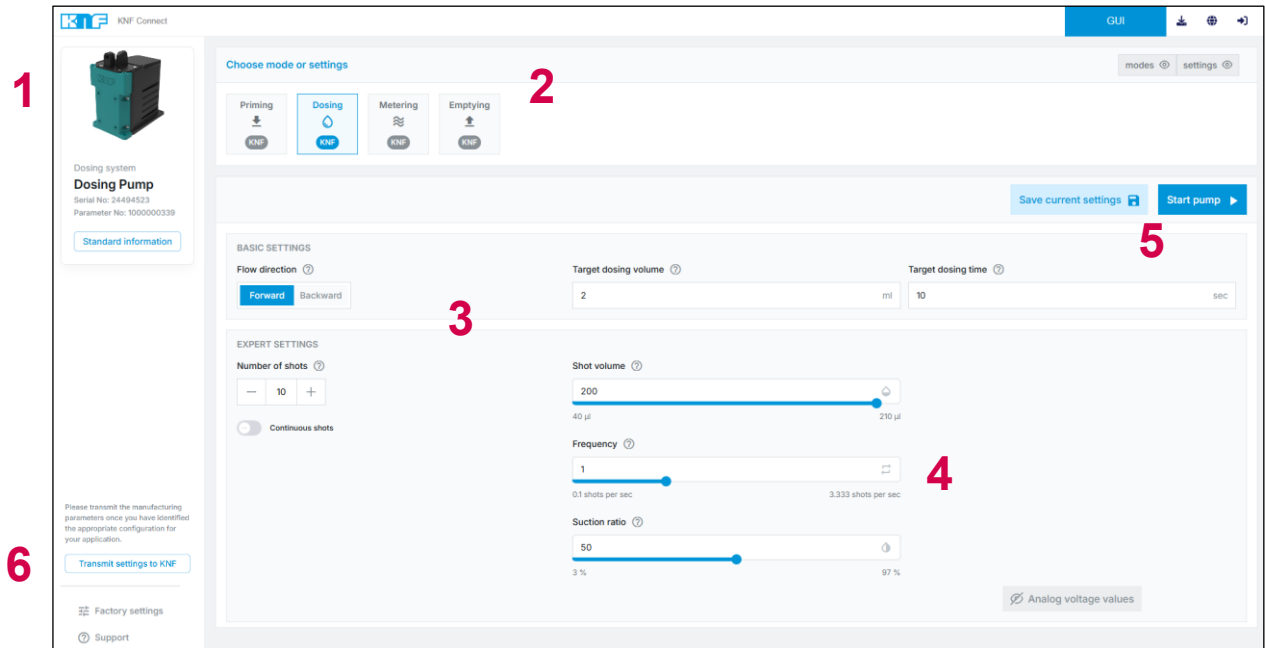


NOTICE




Use of the KNF Connect Driver is limited to Microsoft Windows-based operating systems. Administrator rights are mandatory for the installation.

5. KNF Connect establishes a connection to your pump and automatically opens up the KNF Connect main page. (see 3 *Getting familiar with KNF Connect*).

3 Getting familiar with KNF Connect



1. Your connected system is being displayed, including model name, serial number, parameter file number.
2. Choose the appropriate mode to start testing your pump.
3. Make adjustments either via the BASIC or EXPERT settings. The basic settings allow to simply put in target values for volume and time. The operating parameters (see 4.) will then be calculated automatically.
4. Edit individual operating parameters by using the sliders or by entering concrete values.
5. Start and stop the currently selected operating mode.
Once your testing is done and the operating parameters are valid, save your settings.
6. Transmit your evaluated operating settings to KNF to receive preconfigured dosing pumps in the future. A KNF representative will contact you.
Factory Settings restores the settings to the factory default state.

	Save current settings	Creates a new settings tile and executes both of the two storage commands as shown below.
	Save current settings	Update the current settings linked to the currently selected tile to the cloud. However, the settings are <u>not</u> downloaded to the persistent storage inside the pump.
	Store permanently to pump	Downloads the current settings to the persistent storage inside the pump.

4 Status LED

LED status	Possible cause	Remedy
Green, continuous	Normal operation	--
Green, flashing	Invalid values have been entered.	Refer to the operating instructions
Red, flashing	Minor error, e.g. insufficient supply voltage or excessive temperature inside housing.	Self-reset once the error has been rectified. Refer to the operating instructions for more details.
Red, continuous	Major error.	Reset: Power OFF/ON necessary. Refer to the operating instructions for more details.

5 Functional description

The pump has an elastomer diaphragm driven by an eccentric and two electromagnetically switched valves. The eccentric is driven by a stepper motor, which can be operated in two different modes – priming and dosing/metering – under electronic control (Fig. 1).

The RUN signal starts the suction cycle (Fig. 2), during which the diaphragm moves downwards and is filled with liquid. This is followed by the discharge cycle, during which the pump delivers the shot volume. Once the discharge cycle is complete, one dosing cycle is finished. The cycle frequency can be specified by the control system, taking into account the range that is technically achievable for the dosing pump.

Furthermore, the ratio of suction time to cycle time (suction ratio) can be specified in %. For example, a suction ratio of 20% results in fast suction and slow discharge. This achieves a quasi-continuous flow rate at the pump outlet.

If the suction ratio is 80%, for example, suction is slow and discharge is fast. This setting is suitable, for example, for dosing volatile media or for long suction lines. This mode can also be used to ensure that no drops remain when dosing above the mirror level, which is important for accurate dosing.

The suction ratio can only be changed until the suction or discharge time is at least 0.15 seconds.

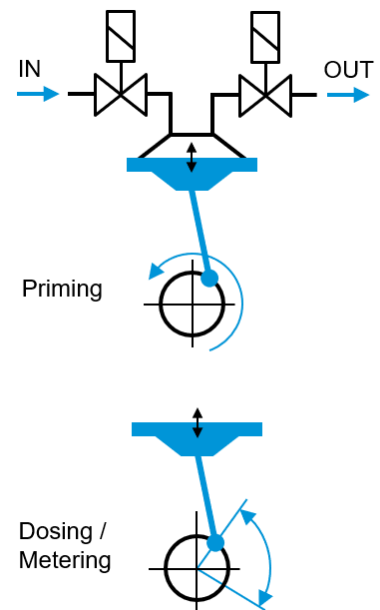


Fig. 1

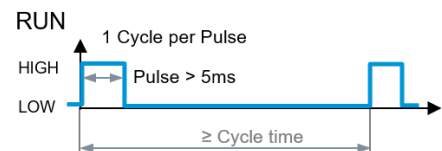
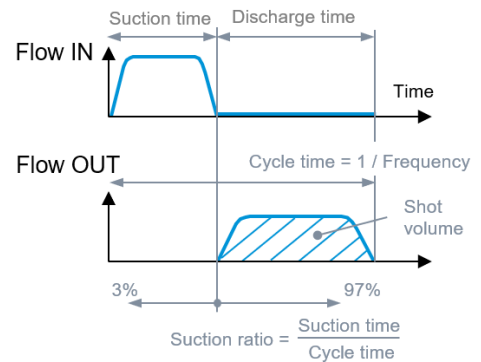
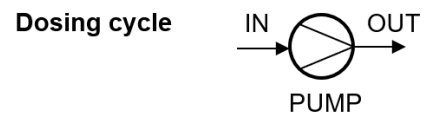


Fig. 2 Dosing cycle

KNF reserves the right to make technical changes
without notice. Date: 04/2026
Document ID No. 358829



www.knf.com