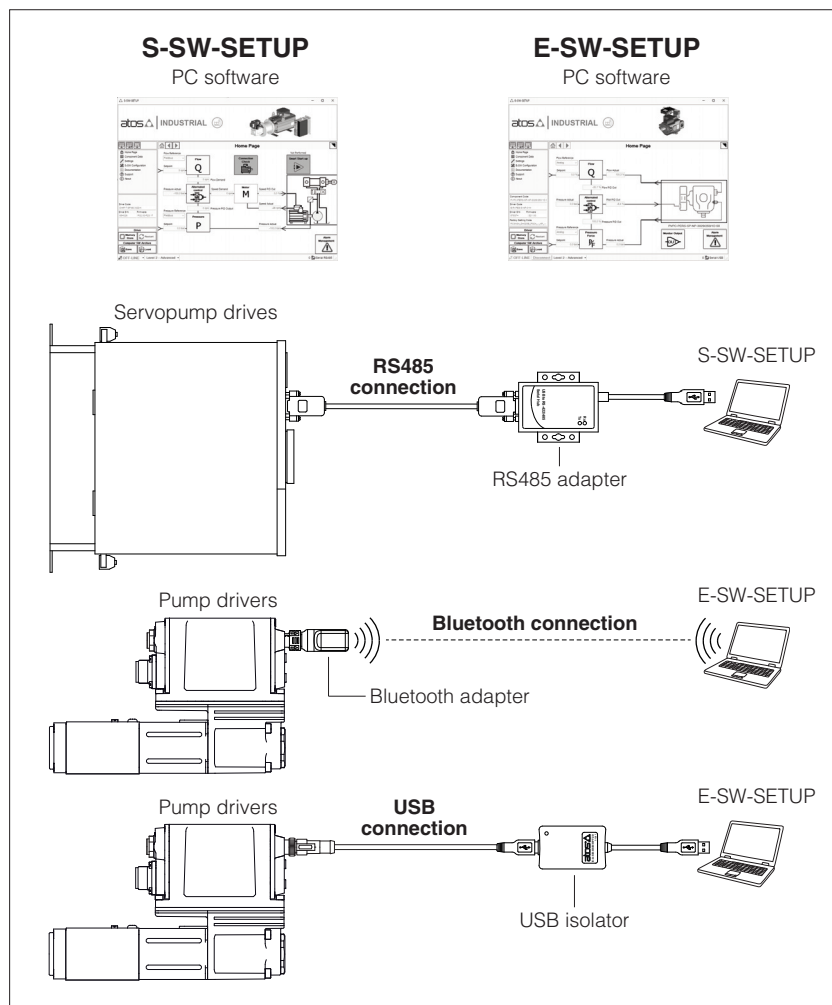


# Programming tools for pumps & servopumps

Atos PC software, adapters, cables and terminators



S-SW-SETUP and E-SW-SETUP programming software are developed for Windows and free downloadable at [www.atos.com](http://www.atos.com) in MyAtos download area.

The intuitive graphic interface allows:

- set up servopump drive and pump driver functional parameters
- verify the actual working conditions
- identify and quickly solve fault conditions
- adapt the factory preset parameters to the application requirements
- store the customized setting into servopump drive and pump driver
- archive the customized setting into the PC

The graphic interface is organized in pages related to different specific groups of functions and parameters.

The connected devices models are automatically recognized and the parameters groups will be displayed.

## General features:

- automatic recognition of connected devices
- numeric parameters settings (scale, bias, ramp, linearization, dither, etc.)
- real-time parameters modification
- diagnostic and monitor signals
- internal oscilloscope function

S-SW-SETUP PC software:

- supports RS485 communication for all Atos digital servopump drives (see 7.1)

E-SW-SETUP PC software:

- supports Bluetooth/USB communication for all Atos digital pump drivers (see 7.2)
- firmware update

## 1 PROGRAMMING TOOLS

### 1.1 S-SW-SETUP PC software

Free downloadable software for PC allows to set all servopumps functional parameters and to access complete diagnostic information of digital servopump drives via RS485 service port.

Atos S-SW-SETUP PC software supports all Atos digital servopump drives and it is available in MyAtos area upon web registration at [www.atos.com](http://www.atos.com).

### 1.2 E-SW-SETUP PC software

Free downloadable software for PC allows to set all pumps functional parameters and to access complete diagnostic information of digital pump drivers via Bluetooth/USB service port.

Atos E-SW-SETUP PC software supports all Atos digital pump drivers and it is available in MyAtos area upon web registration at [www.atos.com](http://www.atos.com).

### 1.3 S-SW-SETUP / E-SW-SETUP minimum requirements

<b>Personal Computer</b>	Intel® Core™ i3 - 2GHz or equivalent
<b>Operating System</b>	Windows 10 <b>(1)</b> <b>(2)</b>
<b>Monitor Resolution</b>	1024 x 768
<b>Memory</b>	8 GB RAM + Hard Disk with 1 GB free space
<b>Interface</b>	USB port Bluetooth Low Energy (BLE), version 4.2 - only for E-SW-SETUP

**(1)** Windows 7 does not support Bluetooth connectivity

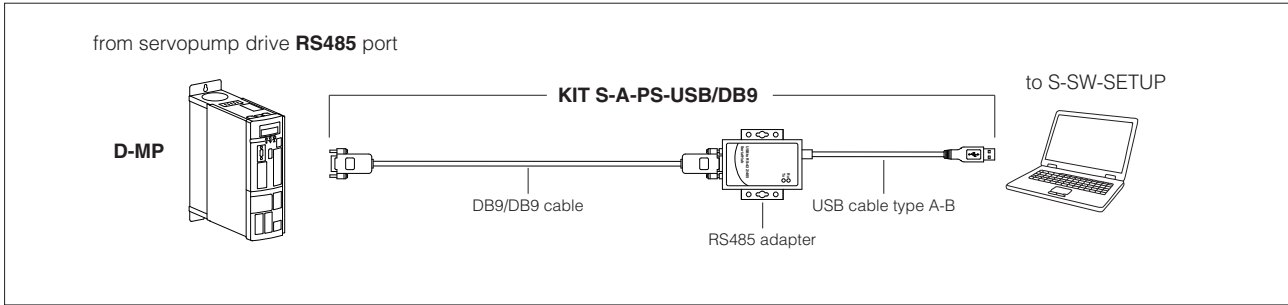
**(2)** Full Bluetooth features are available only with the latest version of Windows 10

## 2 SERIAL RS485 connection - ADAPTER AND CABLE - only for servopumps

Serial RS485 connection permits the functional parameters programming through S-SW-SETUP PC software.

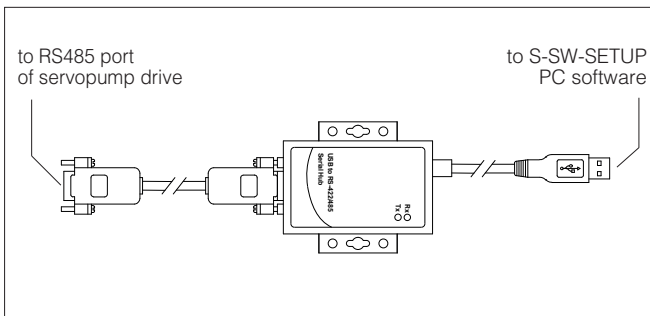
### 2.1 Connection tools

KIT S-A-PS-USB/DB9 (adapter and cables) shown in the image below has to be ordered individually.



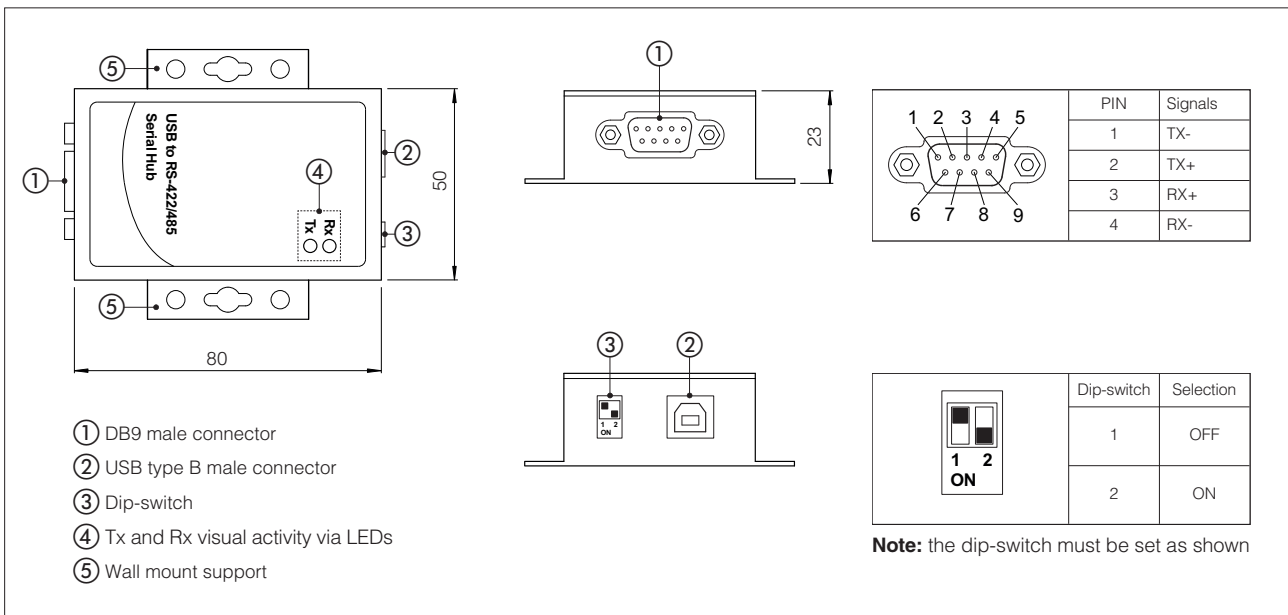
### 2.2 KIT S-A-PS-USB/DB9

#### RS485 Adapter - technical specifications

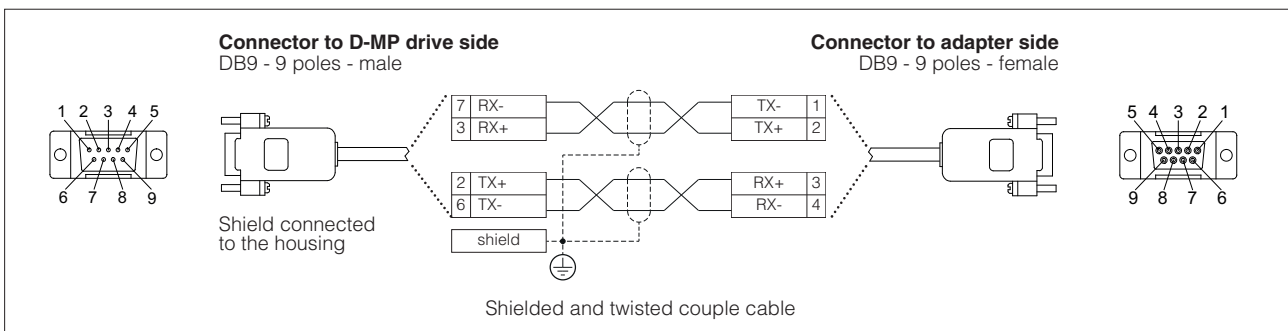


- Compliant with USB 2.0 specification
- Serial communication speed up to 1 Mbps
- $\pm 15\text{KV}$  ESD protection on all signal pin
- Tx and Rx visual activity via LEDs
- Wall mount support
- External power supply not required
- DB9 male 9 poles connector according to serial RS485 specification
- USB female connector, type B

#### RS485 Adapter - overview and dimensions [mm]



#### DB9/DB9 cable - 2 m length

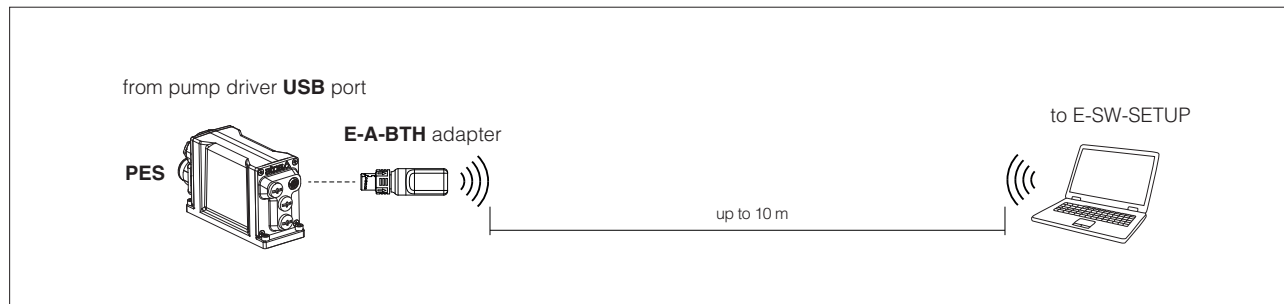


### 3 BLUETOOTH connection - ADAPTER - only for pumps

Bluetooth connection permits the functional parameters programming through E-SW-SETUP PC software (1).

#### 3.1 Connection tools

Adapter shown in the image below can be ordered individually.



(1) The previous versions of the E-A-SB-USB/BTH Bluetooth adapter and E-C-SB-USB/M12 cable are still compatible

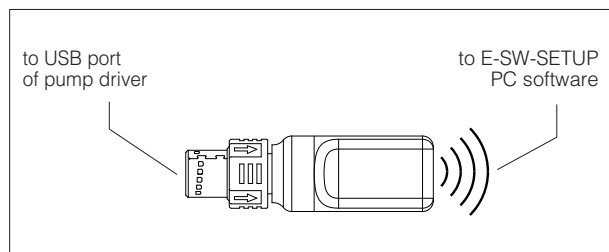
#### 3.2 E-A-BTH - Bluetooth adapter

E-A-BTH adapter adds the Bluetooth® connectivity to Atos pump drivers. E-A-BTH adapter can be left permanently installed on-board, to allow the Bluetooth connection with the pump drivers at any time.

Bluetooth connection to the Atos devices can be protected against unauthorised access by setting a personal password.

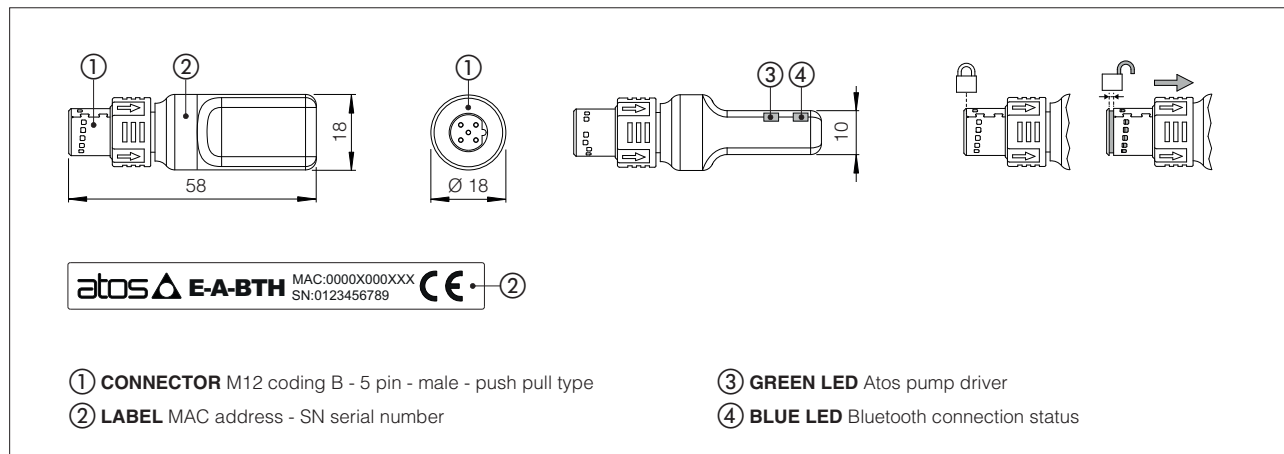
The adapter leds visually indicates the status of valve drivers or axis controls and Bluetooth connection.

For more info, please refer to STARTUP-BLUETOOTH guide.



- M12 male connector, coding B, 5pin, push pull type
- Operating temperature:  $-40 \div +60$  °C (storage  $-40 \div +70$  °C)
- Bluetooth technology: Bluetooth Low Energy (BLE) 5.4
- Max RF transmission power: +6 dBm
- Frequency: 2.402 GHz to 2.480 GHz
- Format: IP66 / IP67 protection degree
- Mass: 14 g
- Two LEDs for an immediate basic diagnostic
- External power supply not required (from Atos digital electronics only)

#### Overview and dimensions [mm]



**WARNING: Bluetooth adapter is available only for Europe, USA, Canada, China, Japan, India, Korea markets!**

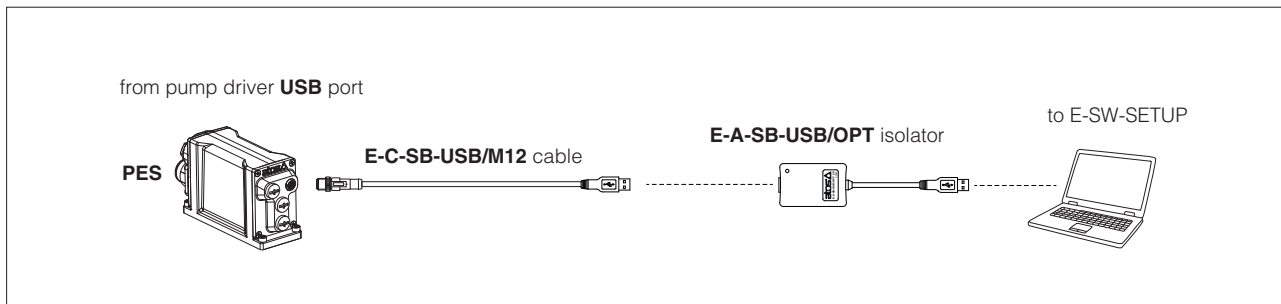
Bluetooth adapter is certified according to RED (Europe), FCC (USA), ISCED (Canada), SRR (China), MIC (Japan), BIS (India), KC (Korea) directives

#### 4 USB connection - ISOLATOR AND CABLE - only for pumps

USB connection permits the functional parameters programming through E-SW-SETUP PC software.

##### 4.1 Connection tools

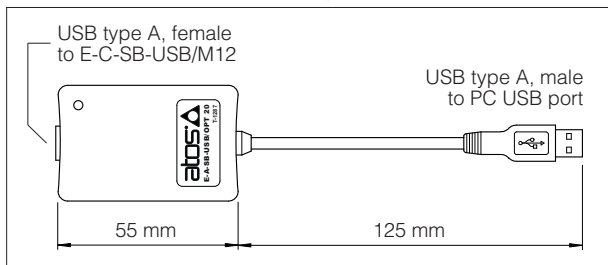
Isolator and cables shown in the image below can be ordered individually or in a single solution purchasing a dedicated kit: **E-KIT-USB**



#### **WARNING: the USB port of pump drivers is not isolated and use of USB isolator adapter is highly recommended!**

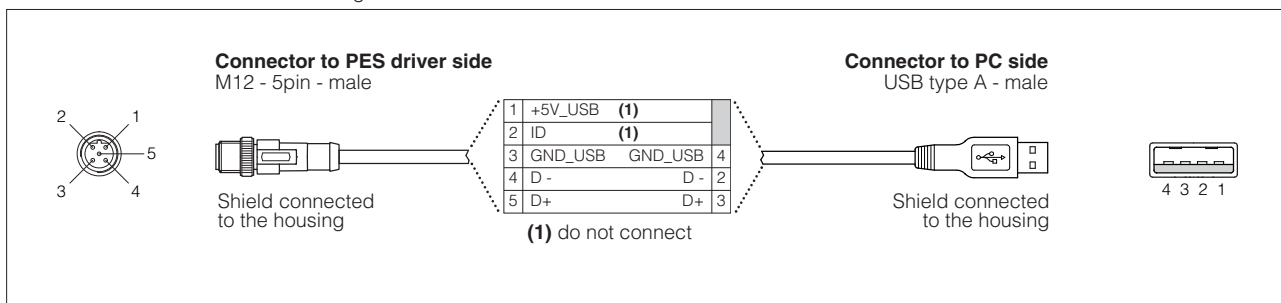
Wrong earthing connections may cause high potential difference between GNDs, generating high currents that could damage pump drivers or the connected PC.

##### 4.2 E-A-SB-USB/OPT isolator adapter



- USB 2.0 Full speed (12 MBps)
- electrical isolation 3 kV
- temperature range,  $-40^{\circ}\text{C} \div +80^{\circ}\text{C}$
- external power supply not required
- PC driver not required
- status LED

##### 4.3 E-C-SB-USB/M12 cable - 4 m length



## 5 FIELDBUS TERMINATORS - only for BC and BP

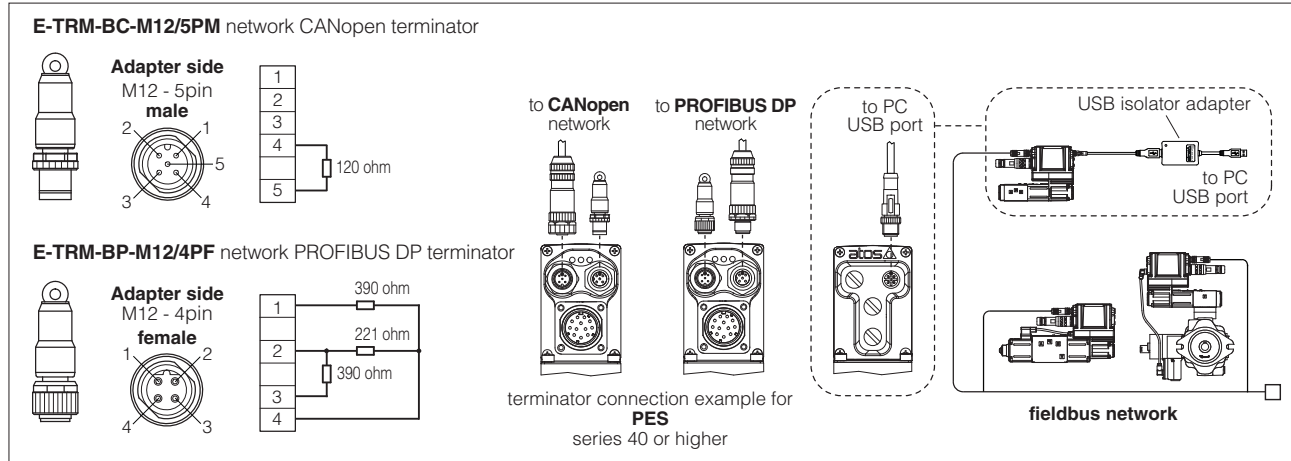
The fieldbus terminators are required when output fieldbus connector has to be used as network end point.

E - TRM	-	BC	-	M12	/	5PM
Terminator						Connector: <b>5PM</b> = to BC executions <b>(1)</b> <b>4PF</b> = to BP executions <b>(1)</b> <b>DB9</b> = to DB9 connector, cable side <b>(2)</b>
Fieldbus interfaces: <b>BC</b> = CANopen <b>(1)</b> <b>BP</b> = PROFIBUS DP <b>(1) (2)</b>				Connector: <b>M12</b> = from M12 output fieldbus connector <b>(1)</b> <b>DB9</b> = from DB9 connector, adapter side <b>(2)</b>		

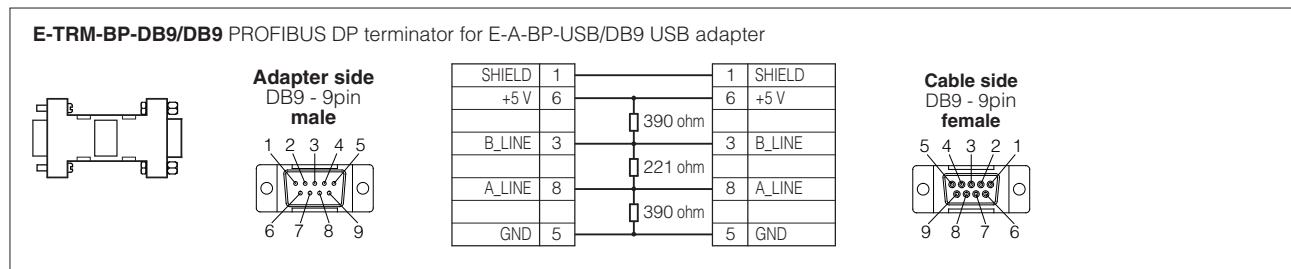
**(1)** for pump drivers PES series 40 or higher

**(2)** for servopump drives D-MP

### 5.1 M12 terminators - only for pumps



### 5.2 DB9 terminator - only for servopumps



## 6 FIRMWARE UPDATE - only for pumps using E-SW-SETUP PC software via USB cable

It is possible to update the firmware of the pump drivers, using proper USB communication port.  
The firmware update is allowed starting from PES drivers series 40 or higher.

## 7 PC SOFTWARE AND RECCOMENDED TOOLS SELECTION

### 7.1 Servopumps

PC software	Model Code	Series	Bluetooth		RS485		
			Adapter	Cable	Adapter	Cable	Terminator
E-SW-SETUP	D-MP	10 or higher			KIT S-A-PS-USB/DB9		

### 7.2 Pumps

PC software	Model Code	Series	Bluetooth		USB		
			Adapter	Cable	Adapter	Cable	Terminator
E-SW-SETUP	PES / PERS	40 or higher	E-A-BTH		E-A-SB-USB/OPT	E-C-SB-USB/M12	

### 7.3 Obsolete pumps

PC software	Model Code	Series	Communication type	Adapter	Cable	Terminator
E-SW-SETUP	PES / PERS	31	PS - Serial	E-A-PS-USB/DB9	E-C-PS-DB9/M12	
			BC - CANopen	E-A-BC-USB/DB9	E-C-BC-DB9/M12	E-TRM-BC-DB9/DB9
			BP - PROFIBUS	E-A-BP-USB/DB9	E-C-BP-DB9/M12	E-TRM-BP-DB9/DB9