

This document is a quick guide,
This circulator is exclusively designed for circulating fluids in
hot-water heating systems and similar systems.

Installation/dismantling must be carried out by a qualified technician.

Personnel must be instructed in the locally applicable accident prevention regulations, have read and understood the installation and operating instructions.

The product must be operated by persons who are instructed in the functioning of the complete system.






Electrical work must be performed by a qualified electrician: nationally applicable guidelines, standards and regulations as well as specifications by local energy supply companies for connection to the local power supply system must be observed.

This device can be used by children from 8 years old as well as persons with limited physical, sensory or mental capabilities or lack of experience and knowledge, if they are supervised or instructed in the safe use of the device and they understand the dangers that may arise. Children are not allowed to play with the device. Cleaning and user maintenance may not be carried out by children without supervision.

Never operate the pump with phase angle control.

Switch off the pump immediately in case of damage to the connecting cable or other electrical components

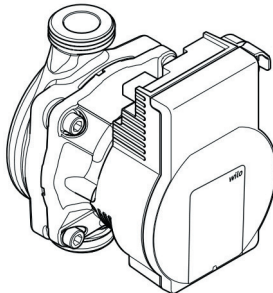
Explanation of symbols

	DANGER	Risk of fatal injury from electric voltage!
	DANGER	Risk of injury or damage due to incorrect use!
	DANGER	Risk of burns from hot surfaces and/or hot fluids!
	DANGER	Risk of fatal injury for persons with medical implants due to installed permanent magnets in the pump.
	Disposal in domestic waste is forbidden! See details in the complete instruction manual available at the address on page 2.	

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	-10° à +95°C (Heating) -20° à +110°C (ST)
	0 à +70°C
	1 ~ 230V +10%/-15%, 50/60 Hz

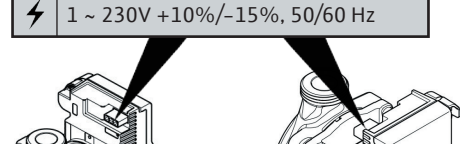
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Para.../iPWM
Para.../LIN
Para.../SC

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⚡ 1 ~ 230V +10%/-15%, 50/60 Hz



1 yellow/green: PE (⊕)
2 blue: N
3 brown: L

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Signal câble •
230 V forbidden

Low voltage 24 V
typical max

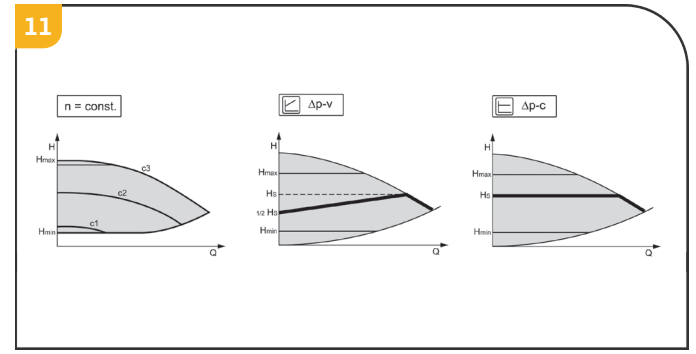
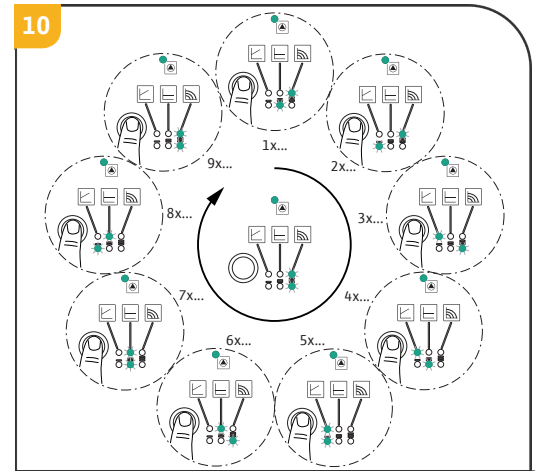
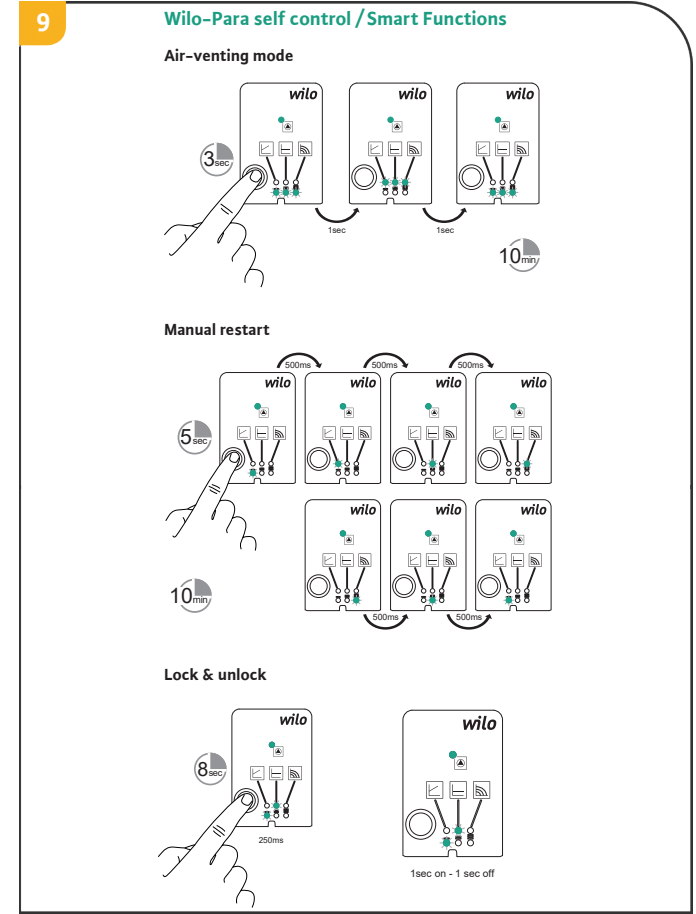
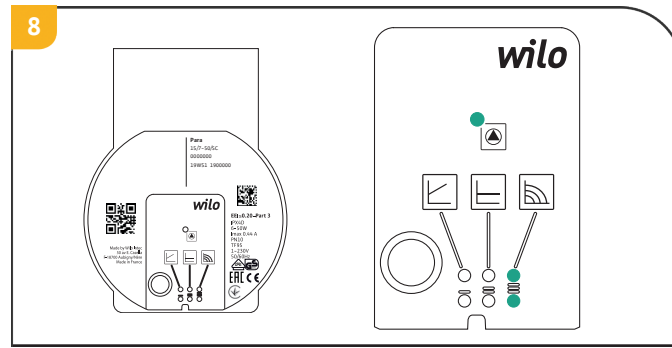
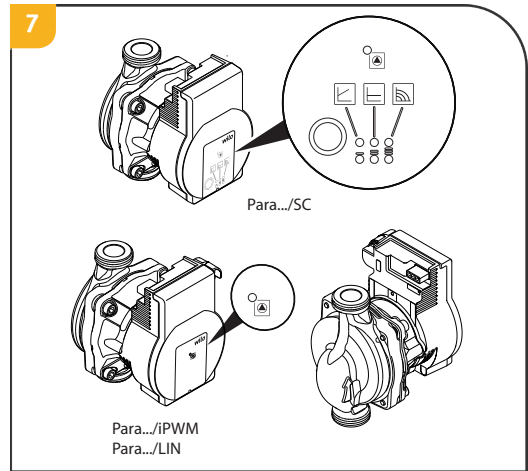
Para.../iPWM
Para.../LIN

iPWM:

- 1 brown: PWM input (from controller)
- 2 blue or grey: Signal earth (GND)
- 3 black: PWM output (from the pump)

LIN:

- 1 brown: 12 V DC to 24 V DC (+/- 10 %)
- 2 blue or grey: Signal earth (GND)
- 3 black: LIN bus data



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	$n = \text{const.}$	III
	$n = \text{const.}$	II
	$n = \text{const.}$	I
	$\Delta p-v$	III
	$\Delta p-v$	II
	$\Delta p-v$	I
	$\Delta p-c$	III
	$\Delta p-c$	II
	$\Delta p-c$	I

Wilo-Para



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