



AlfaPilot

Multi-Energy-Pilot

AlfaPilot is a fluid navigation system that gives priority to renewables before any use of fossil energy. The Multi-Energy-Pilot AlfaPilot can be integrated into:

- Comfort heating systems
- Domestic Hot Water (DHW) systems
- Combined systems (comfort heating & DHW)

for any collective application as residential buildings, hospitals, schools, hotels, sport centers etc.

The simplicity and robustness of the AlfaPilot reduce installation and maintenance costs, ensuring reliable return on investment.

Installed on the heat return loop, parallel to a primary storage tank, AlfaPilot is dedicated for low primary return systems like:

- DHW systems "AquaEfficiency"
- Apartments comfort heating systems "Mini City"

Benefits of AlfaPilot

- Automatic navigation on available energy
- On-going priority given to the use of renewable energy
- Allows pre-heating, even at low temperatures
- Includes remote communication
- Supply of DHW during peak demands thanks to storage of energy accumulated in the primary tank
- Supplies also DHW at low demand periods during recycling
- Protects the user and the equipment during summer overheating periods on solar installations
- No scaling, legionella or DHW health issues, no risk of inter-circuit leakage between the solar and the DHW loop as the solar circuit is not in contact with DHW
- Ideal for renovating all systems fitted with AquaEfficiency and Mini City that are connected to a renewable energy source



Description

- Standard equipment:
 - 3-port diverting valve
 - three temperature sensors
 - IP54 control box with MICRO3000 regulator communicating in MODBUS
 - outdoor temperature sensor is available as an option

Selection tool

Four models to choose from depending on Primary flow rate:

Model	Valve		Flow	Pressure loss	Flow	Pressure loss	Flow	Pressure loss	Part number	W x D x H mm
	Diameter DN	Kvs	m3/h	Kpa	m3/h	Kpa	m3/h	Kpa		
25	25	10	2,0	4	2,5	6	3,6	13	ASTB25	680 x 260 x 315
32	32	16	3,0	4	4,0	6	7,2	20	ASTB32	720 x 260 x 315
40	40	25	5,0	4	6,0	6	15,0	36	ASTB40	730 x 260 x 315
50	50	40	8,0	4	13,0	11	22,0	30	ASTB50	800 x 260 x 315

Operating limits	Maximum	Minimum
Temperature	110 °C	1 °C
Pressure	10 bar	1,5 bar

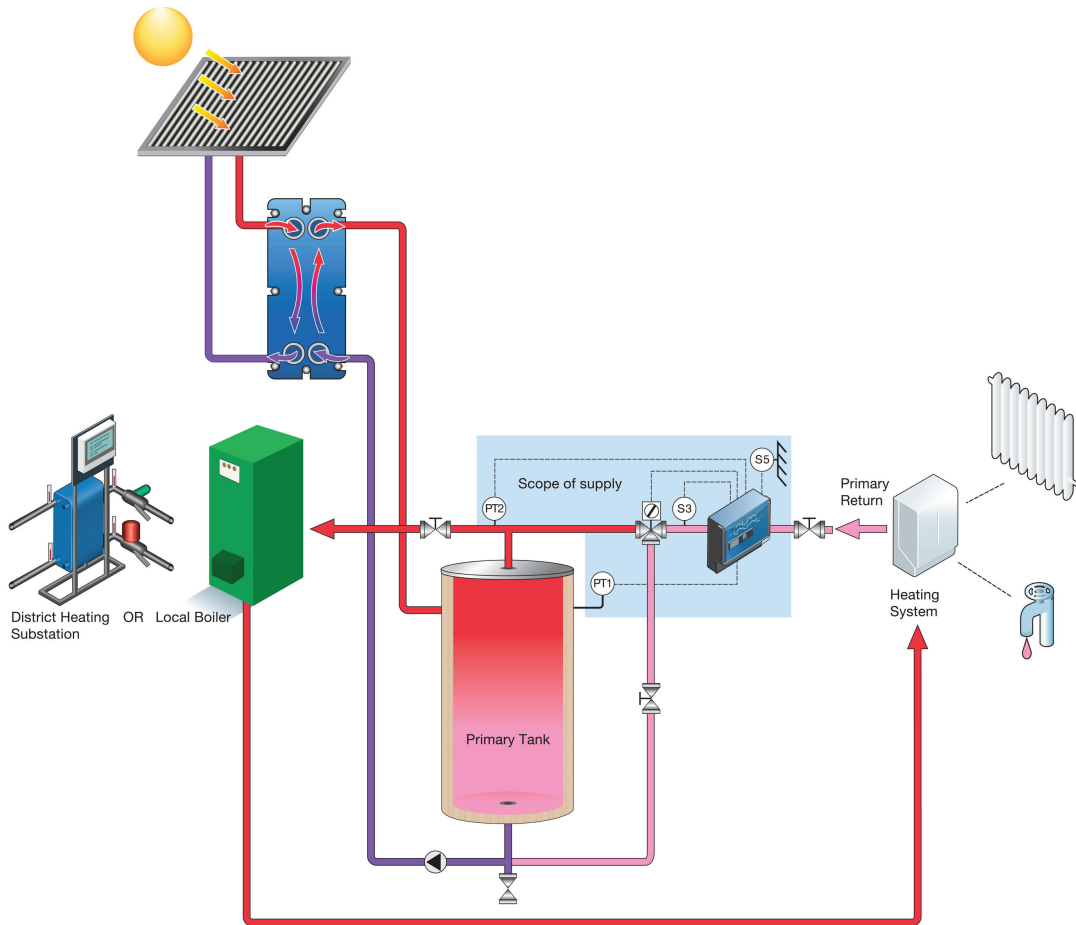
Working principle

AlfaPilot is a "plug and play" fluid navigation system based on comparative temperature measurements.

Example:

- If $PT1 - S3 < \Delta T$: the fluid is guided straight away to the main power source
- If $PT1 - S3 > \Delta T$: AlfaPilot navigates the fluid towards the bottom of the primary tank
- Sensor PT2 controls the 3-port valve and thus limits the outlet temperature of the system
- The optional outdoor sensor S5, permitting external influence on PT2 settings, gives the best out of AlfaPilot

AlfaPilot flow chart



Temperature sensors:

S3 = primary inlet sensor

S5 = outdoor sensor (optional)

PT1 = primary tank sensor

PT2 = sensor for additional hot water outlet - return local boiler or heating substation

How to contact Alfa Laval

Up-to-date AlfaLaval contact details for all countries are always available on our website on www.alfalaval.com