


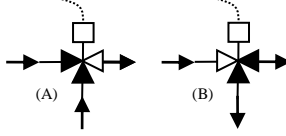

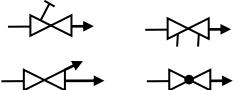
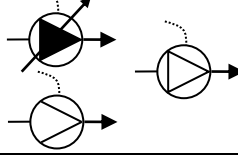


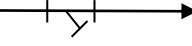

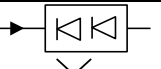


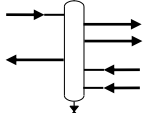
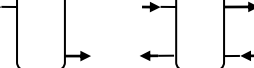
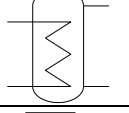
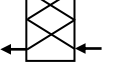
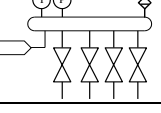
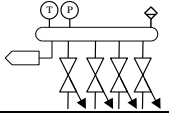
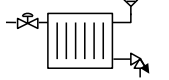

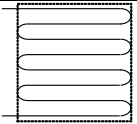
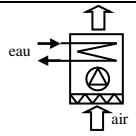
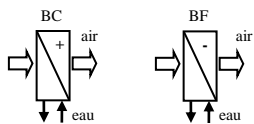
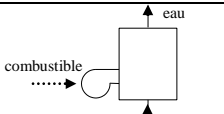
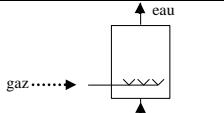
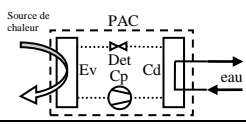
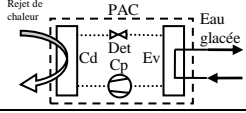
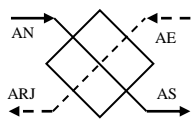
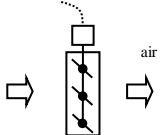
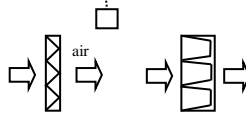
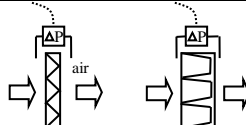
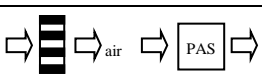
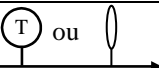



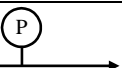
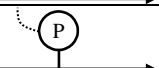
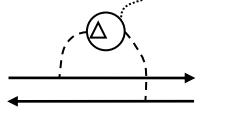
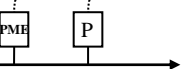
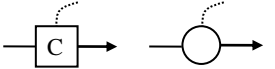
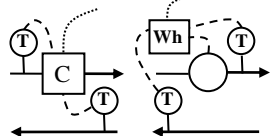
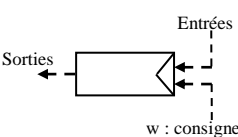
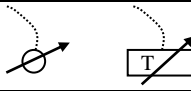



	Symbole	Nom	Fonction
1		Link	Show the flow direction at the limit of the diagram.
2		Valve normally open (NO)	Manually isolate a circuit or hydraulic equipment
3		Valve normally close (NF)	Manually open a hydraulic circuit (emptying, manual switching of the operating mode ...)
4		Motorized 3-way valve mounted in mixture (A) or in distribution (B)	A: Mix 2 liquids to obtain a defined temperature B: Set the flow rate of the liquid distributed in the downstream circuit
5		Motorized 2-way valve	Isolate / open a circuit. Gradually adjust the flow of the liquid in the circuit.
6		Balancing valve	Manually adjust the maximum flow of the circuit.
7		Pump/Fan	Move the fluid. Adjust the fluid flow rate by varying the speed of rotation.
8		Automatic air vent	Evacuate the air from the grid at a high point.
9		Drainage to the sewer	Evacuate water (overflow or drain) to the sewer.
10		Strainer	Filter impurities from the circulating medium.
11		Non-return valve	Prevent fluid from circulating in the wrong direction.
12		Back flow preventer	Separate the sanitary circuit from the heating / cooling circuit.
13		Expansion tank	Absorb the expansion volume of the heating system due to changes in temperature.
14		Safety valve	Evacuate fluid if the pressure is too high. Security element.
15		Hydraulic balancer	Make independent (hydraulically) a primary circuit and several secondary circuits.
16		Buffer tank	Increase the water capacity of the installation to avoid short-cycle operation of the production.
17		Storage tank	Heat the secondary liquid with the primary liquid without mixing.
18		Heat plate exchanger	Heat a primary liquid with a secondary liquid.
19		Water supply manifold	Distribute flows to different heat emitters and close circuits on demand.
	Symbole	Nom	Fonction

20		Water collector manifold	Collect flows from heat emitters and send them back to production. Set the flow rates in the different circuits.
21		Radiator	Emit the heat in the rooms (air vent, balancing valve, thermostatic valve)
22		Thermostatic radiator valve	Regulate the flow rate at the radiator inlet to adapt the output power according to the detected ambient temperature.
23		Heating or cooling floor system	Emit or take heat with floors.
24		Fan coil ou aérotherme	Heating / cooling the air in the room.
25		Heating/cooling coil	Heating / cooling the air in an Air Handling Unit, air handling equipment or directly in a duct.
26		Boiler	Heat the water in the heating circuit with fuel or gas.
27		Boiler	Heat the water in the heating circuit with gas.
28		Heat Pump	Heat the water in the heating circuit by taking heat from another fluid.
29		Chiller	Refresh iced / glycoled water by rejecting heat to another fluid.
30		Cross flow heat exchanger	Heat or cool the incoming air by exchanging heat with the extracted air.
31		Motorized damper	Allow / prohibit the air flow in an equipment or a section. Modulate the air flow.
32		Strainer	Intercept particles / dust in the air passing through the equipment / duct.
33		Differential pressure switch	Detect excessive clogging of the filter (upstream-downstream pressure difference too large).
34		Noise reduction device	Limit the transfer of noise from fans in ducts.

	Symbole	Nom	Fonction
35		Thermometer	Display temperature locally.
36		Temperature sensor	Measure and transmit the temperature value to a controller / PLC.
37		Outside temperature sensor	Measure and transmit the value of the outside temperature to a controller / PLC.
38		Thermostat Frost thermostat	Detect a temperature below / above a fixed limit. The integrated electrical contact (NO / NC) can be used for safety or control functions.
39		Manometer	Display pressure locally.
40		Pressure sensor	Measure and transmit the pressure value to a controller / PLC.
41		Differential pressure sensor	Measure and transmit the value of the pressure difference to a controller / PLC.
42		Pressure switch Low pressure water switch	Detect a lower / upper pressure than a fixed limit. The integrated electrical contact (NO / NC) can be used for safety or control functions.
43		Water meter	Count the volume of fluid passing through the pipe. The information is transmitted to the PLC by electrical pulses or a digital signal encoded on a bus (MBUS, ...)
44		Energy meter	Count the thermal energy produced or consumed in the circuit. The information is transmitted to the PLC by electrical pulses or a digital signal encoded on a bus (MBUS, ...)
45		Control device PLC control loop	Command (all or nothing or progressive) actuators (valve motor, fan ...) so that the adjusted quantity (measured on an input) is equal to the setpoint w.
46		Setpoint potentiometer	Set the desired setpoint remotely (information transmitted to an analog input (AI) of the PLC or controller).
47		Presence detector	Report a presence (information transmitted on a digital input (DI) of the PLC or the controller).