

ART. 2186



Booster unit complete with:

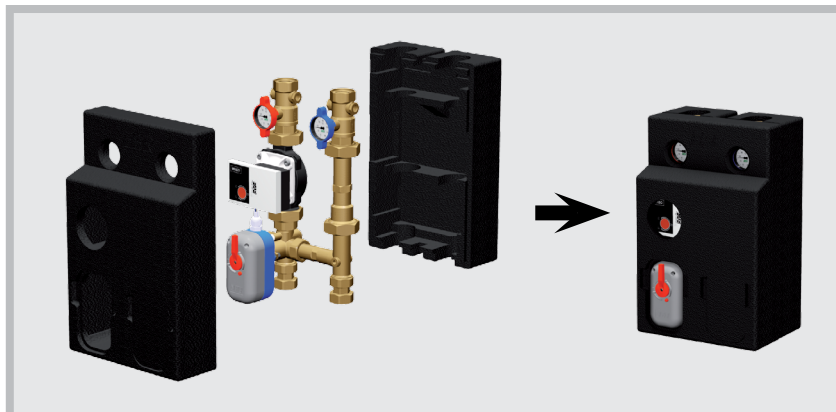
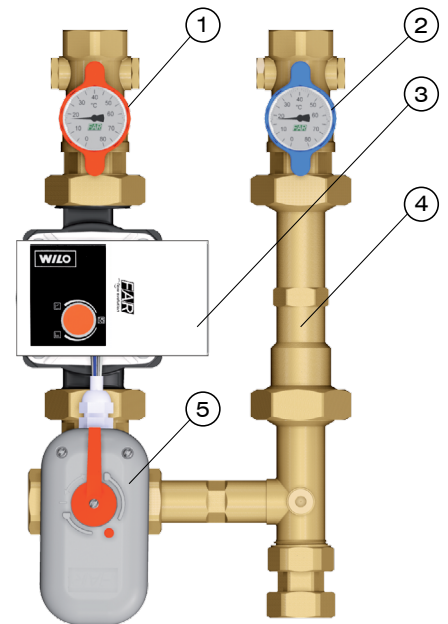
- Reversible mixing valve with 0-10V actuator
- High efficiency circulator
- Shut-off valves
- N° 2 thermometers scale 0 ÷ 80°C
- PPE insulation

1 DESCRIPTION

The booster units **art.2186** are devices designed for the temperature regulation and the distribution of the thermal fluid in multi-floor or multi-zone systems. They are usually installed in the central heating room after the boiler and the hydraulic separator, and connected to the distribution manifolds of low temperature heating systems.

2 CONSTRUCTION DETAILS

1. 1" Shut-off valve with 0÷80°C thermometer and red handle to connect to the delivery pipe.
2. 1" Shut-off valve with 0÷80°C thermometer and blue handle to connect to the return pipe.
3. High efficiency circulator with 1"1/2 connecting units and centre distance 130mm or 180 mm.
4. Brass extension with built-in non-return valve in case the circulator needs to be placed on the opposite side.
5. Mixing valve with 1" connections and 0-10V modulating actuator for automatic control.



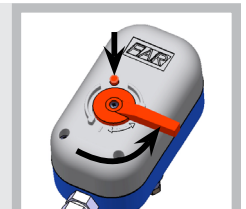
The booster unit is equipped with a front and back insulation shell and a reversible plug for the circulator.

2.1 0-10V MODULATING ACTUATOR

The modulating actuator, consisting of a gearmotor, allows the movement of a mixing valve in a completely automatic way, taking the signal from a control unit working with a 0-10V or 4-20mA analogic signal. It's possible to know the valve position thanks to an indicator.

MANUAL RELEASE

Press the red button to open or close the valve, while at the same time turning the switch connected to the engine shaft by 90° counterclockwise. Normal operation resumes automatically.

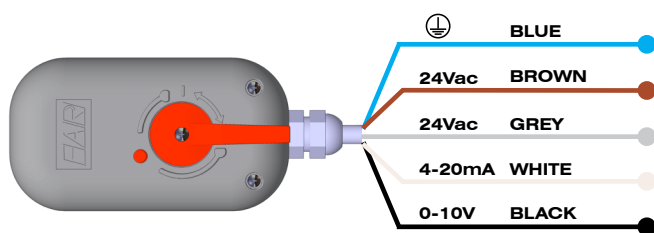


CODE	VOLTAGE FREQUENCY	ABSORBED POWER	ROTATION ANGLE	ROTATION TIME	TORQUE	TEMPERATURE RANGE	DEGREE OF PROTECTION	COLOUR
3012 180	24 V-50Hz	4,5 VA	90°	180 S	10 Nm	-10° + 50°C	IP54	GREY/BLUE

ELECTRICAL CONNECTION

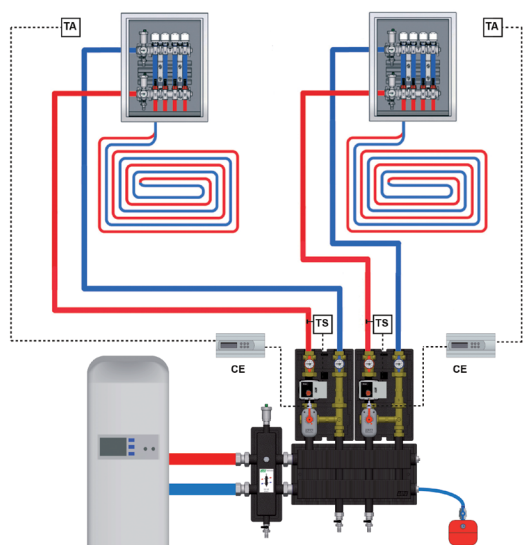
Before connecting the actuator make sure that the selected model is compatible with the available network voltage. All the connections must be done by qualified staff following the electric diagram (shown on the actuator) and making sure that the main electric supply line is off. Any wrong connections may damage both the person and the equipment.

COLOUR	CONNECTION	DESCRIPTION
BLUE	NEUTRAL	NEUTRAL CONNECTION - ACTUATOR POWER SUPPLY
BROWN	PHASE	PHASE CONNECTION 24Vac - ACTUATOR POWER SUPPLY
GREY	PHASE	PHASE CONNECTION 24Vac - ROTATION POINT INVERSION
WHITE	4-20mA	CONNECTION TO THE CONTROL UNIT WITH 4-20mA CONTROL SIGNAL
BLACK	0-10V	CONNECTION TO THE CONTROL UNIT WITH 0-10V CONTROL SIGNAL



To control the opening and closing of the zone valve through the actuator, simply connect the blue cable to neutral, the brown cable to phase and the black cable to the 0-10V control unit (or the white cable if the regulation is 4-20mA). The grey cable is used to invert the starting point of the actuator and, as far as our applications are concerned, we suggest to leave it always under power.

3 INSTALLATION OVERVIEW

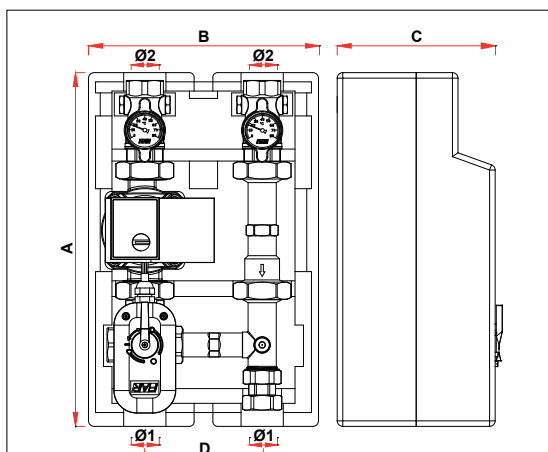


The circulation pattern shows how to install the booster units in the central heating room.

Both booster units with modulating actuator are managed by a control unit (CE) which changes the position of the mixing valve.

It is recommended to install on every booster unit a safety thermostat (TS) in contact with the delivery pipe to avoid that overheated water gets in the system.

4 DIMENSIONAL FEATURES



CODE	Ø1	Ø2	A	B	C	D
2186 1130EA	G1	G1	384	245	170	125
2186 1180xx	G1	G1	434	245	170	125

5 TECHNICAL FEATURES

- Nominal pressure: 10bar
- Max. temperature: 95°C
- Compatible fluids: water, water glycol
- Thermometer scale: 0÷80°C
- Insulation shell: PPE
- Fixing brackets: galvanized steel
- Mixer valve: CB753S brass
- Shut-off valve with thermometer gauge: CW617N brass
- Extension with built-in non-return valve: CB753S brass