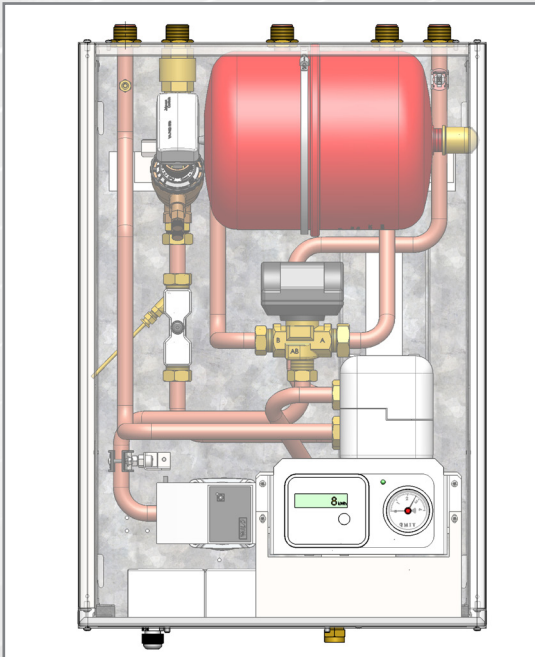


ModuSat Single Plate-Double Circuit (SPDC) Heating Interface Units

The Evinox ModuSat satellite heating system has been designed to provide apartments and communal housing developments with independent fast recovery hot water, via an externally mounted DHW tank fed by the unit, and high efficiency heating. With a large range of models available, the system suits a variety of applications.

Consisting of a single plate heat exchanger, pump and control valve, the ModuSat offers a total heating solution. In addition to this the ModuSat can provide direct control of underfloor heating output temperature without the need for any underfloor pumps, blending valves or mixing valves.

The design of the ModuSat provides the end user with the same autonomy as if they had their own boiler and tank. This includes a meter for billing of energy usage and cold water consumption, where required, for each apartment or house, and also offers models for both heating and cooling.



The ModuSat draws energy from the main heating primary circuit delivered from a centralised plant room. This is in line with latest legislation encouraging centralised plant rather than the use of individual heating and hot water systems.

The in-built energy meter can be tailored to meet the requirements of the building operator and residents, including a complete remote billing solution using BUS or GPRS communication to provide the end user with a fully itemised energy bill.

Features & Benefits

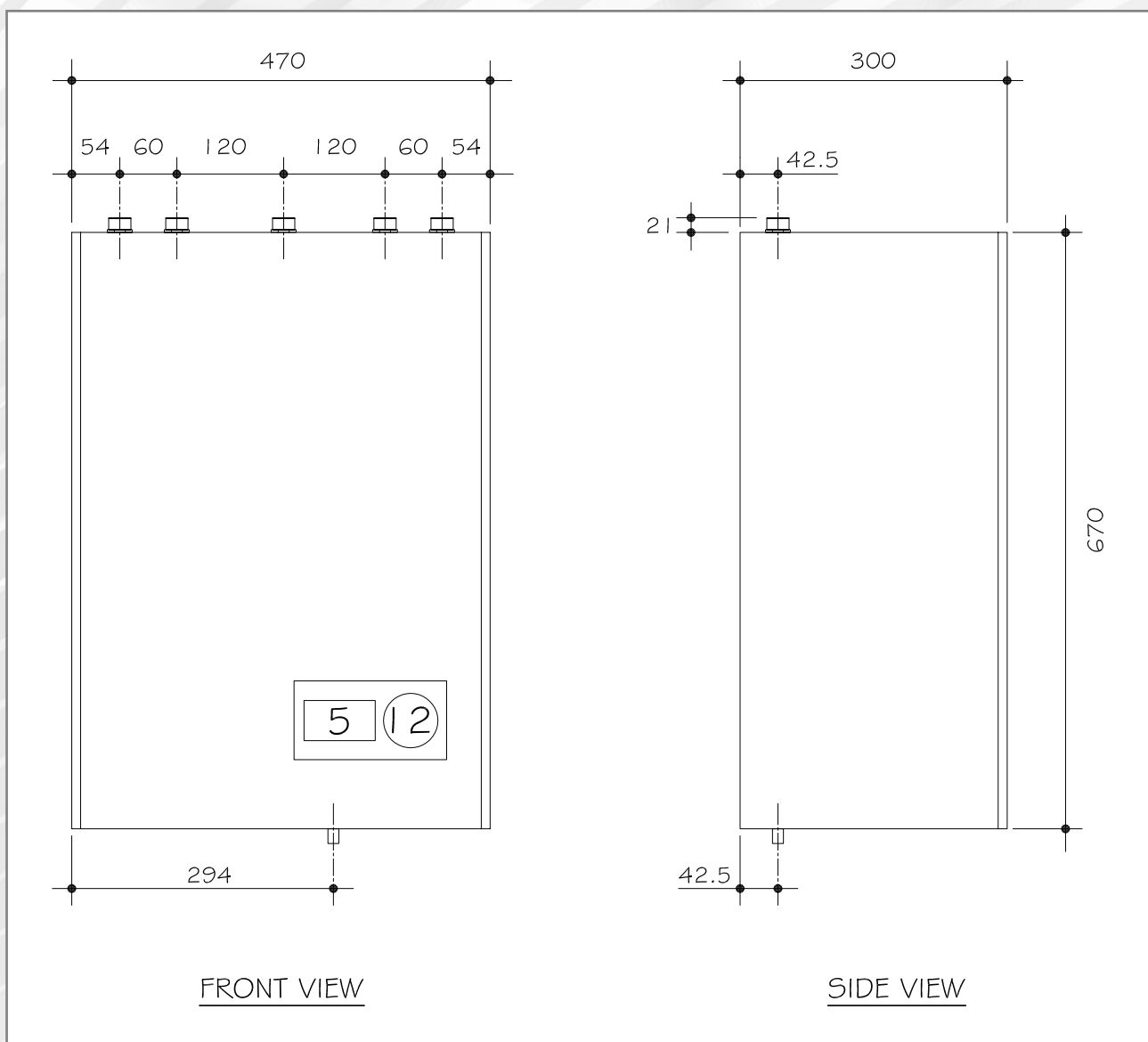
- Ultrasonic heat meter MID Certified.
- Simple to install due to factory assembled pipe work, internal wiring and integrated heat meter.
- Integrates readily with renewable energy sources.
- Central plant dramatically reduces kW load for the building compared to individual boilers.
- Braze welded PHE for primary circuit separation.
- Easy access for servicing.
- Minimal maintenance requirements
- External filling loop.
- PaySmart unit for debt free energy billing (Optional).
- SmartTalk™ two way communication
- In-built Non Return Valve on the return - Prevents incorrect pipework connection.
- Wilo PWM Pump - Provides compliance with 2015 pump efficiency regulations.
- Pressure Independent Control Valves (PICV) eliminate the requirement for 3 separate valves for the regulation of differential pressure, flow and heat energy.
- Motorised diverter valve - to switch between heating & hot water modes.
- Control & monitoring of external tank temperature via loose supplied sensor connected to the ModuSat board.
- Wireless RS485 module can provide connection remotely without the requirement of a Bus network. (Optional)
- Control board works with TCP/IP and provides operation of up to three heating circuits.
- ViewSmart Room Controller with optional ENE 3 model.
- Remote monitoring, alarms and diagnostics
- No annual gas appliance inspections required.
- Cold water meter (Optional external).
- Capable of reading the electrical meter (Option for ENE3).
- Unit pre-set to operate on DHW priority mode.
- Full positive shut-off of primaries when there is no secondary energy demand.
- Insulation jacket on PHE.
- Pipe insulation available as a cost option upon request.

Technical Details & Dimensions

ModuSat SPDC Heat Interface Units

	Units	ModuSat SPDC 20
Primary flow rate	l/h	400 - 1000
Primary flow temperature	°C	80
Duty	kW	Up to 24
Primary operating pressure	Bar	10 (Optional 16 Bar)
Power supply		220 / 240 V (AC) 50 Hz

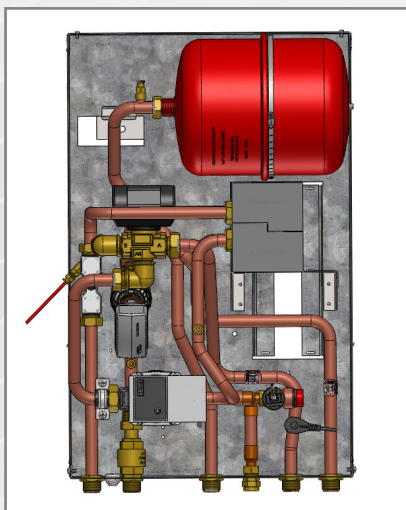
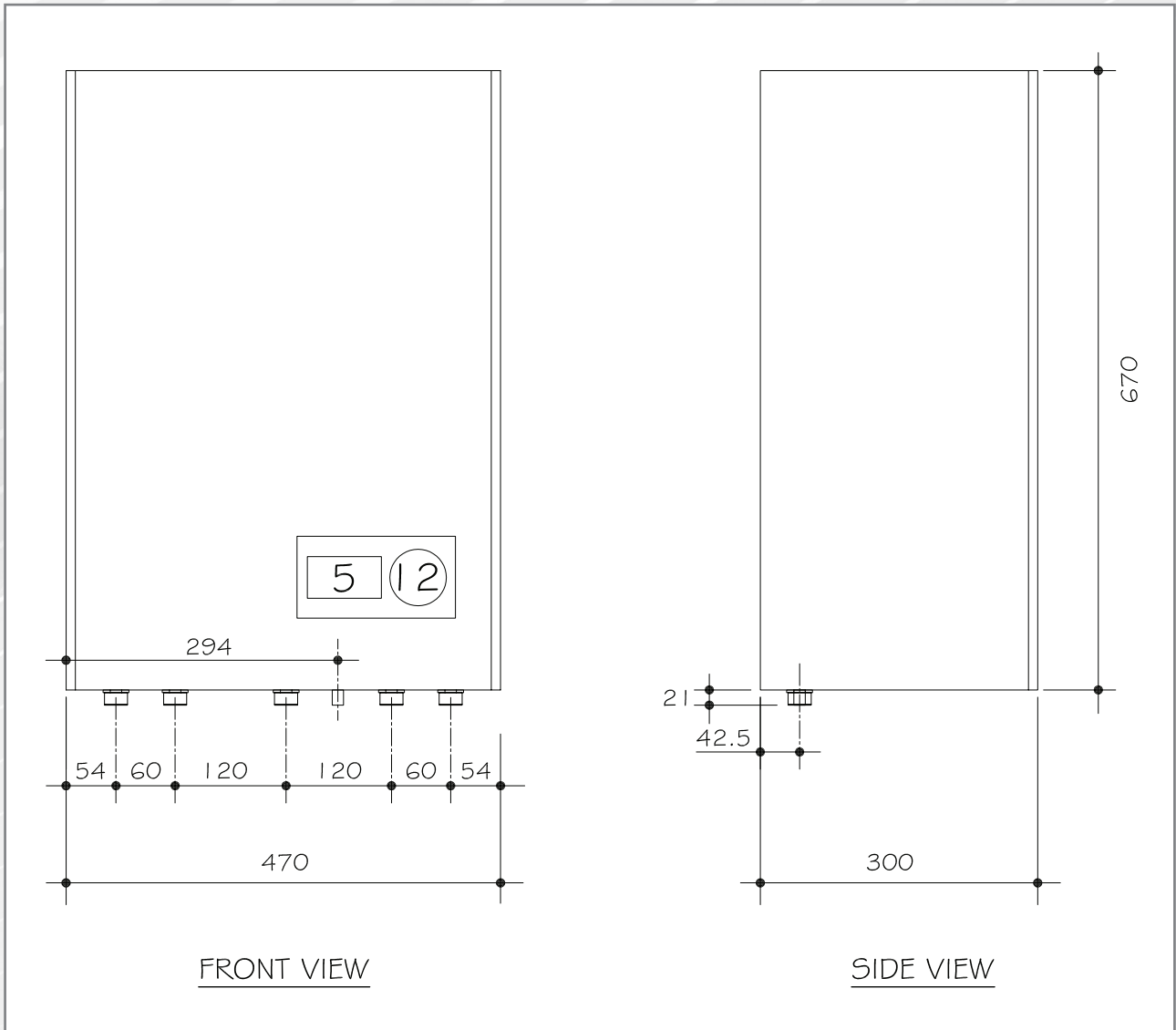
Top Connections



Technical Details & Dimensions

ModuSat SPDC Heat Interface Units

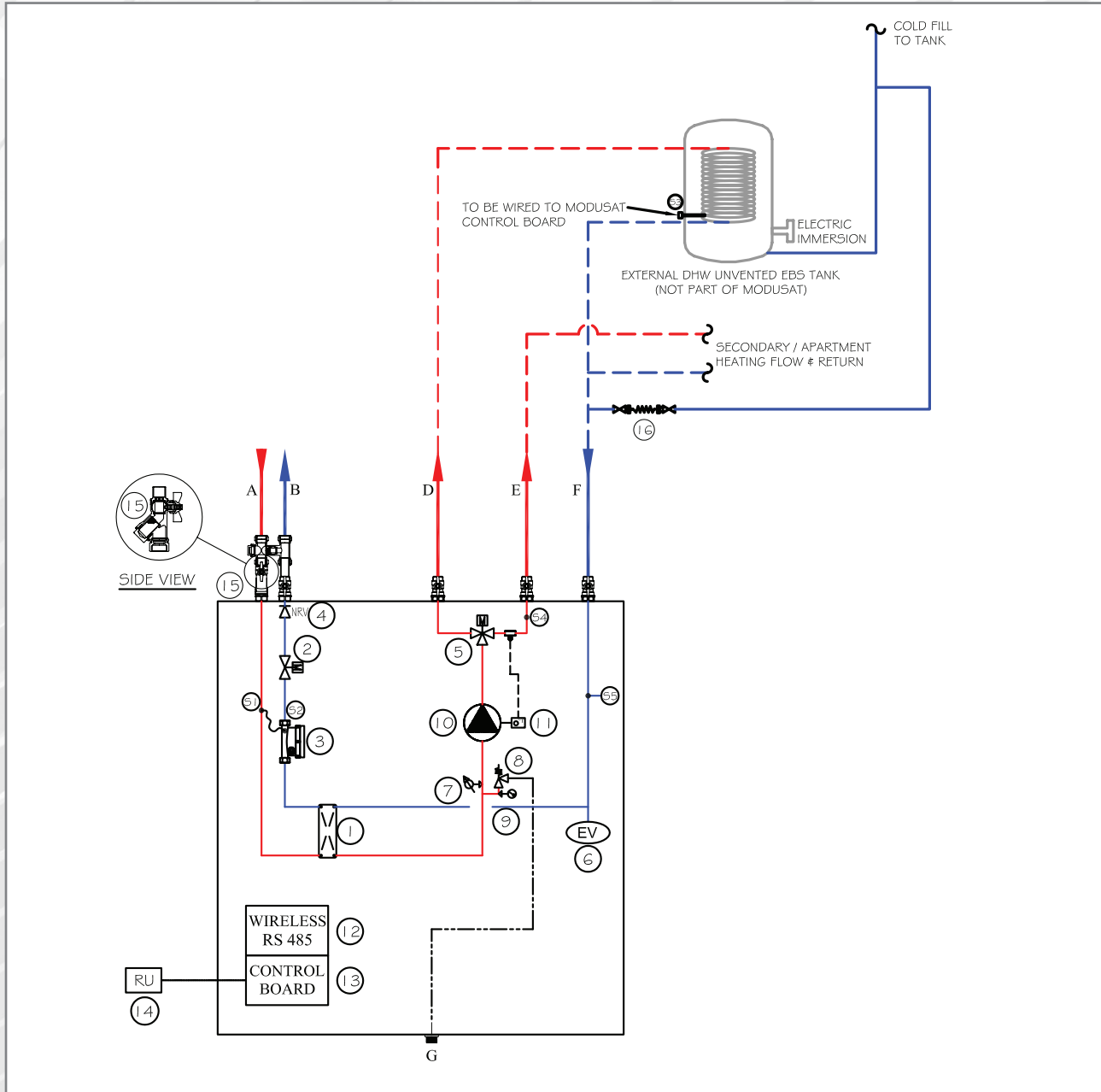
Bottom Connections



Circuit diagram

ModuSat SPDC Heat Interface Units

Top Connections



Components

- A** Primary / DH flow
- B** Primary / DH return
- D** DHW tank coil flow
Domestic hot water outlet
- E** Secondary / Apartment
heating flow
- F** Secondary / Apartment
heating common return
- G** Connection for safety
discharge

Primary Circuit Side

- 1** Insulated plate heat exchanger
(Heating)
 - 2** Heating control valve with
actuator
 - 3** Heat meter
 - 4** Non-return valve
- ### Heating Secondary Side Circuit
- 5** Motorised diverter valve
 - 6** Heating expansion vessel
 - 7** Low pressure switch

- 8** Safety relief discharge
- 9** Manometer
- 10** Heating circulation pump
- 11** Safety thermostat (Optional)

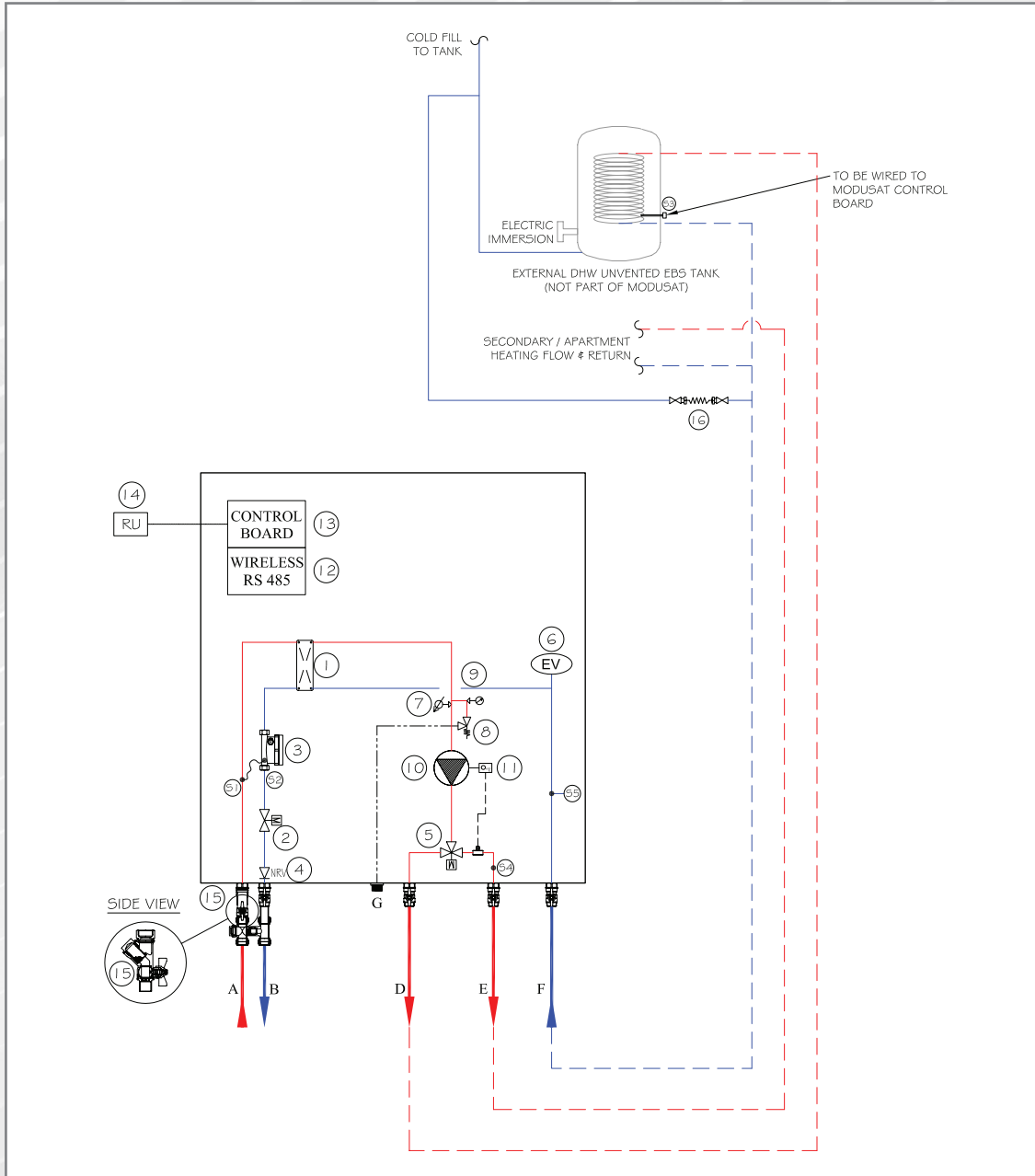
Controls & Other Items

- 12** Wireless RS 485
- 13** Electronic control board
- 14** ViewSmart room control unit
- 15** Strainer & IV assembly
- 16** Filling loop (External)

Circuit diagram

ModuSat SPDC Heat Interface Units

Bottom Connections



Components

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