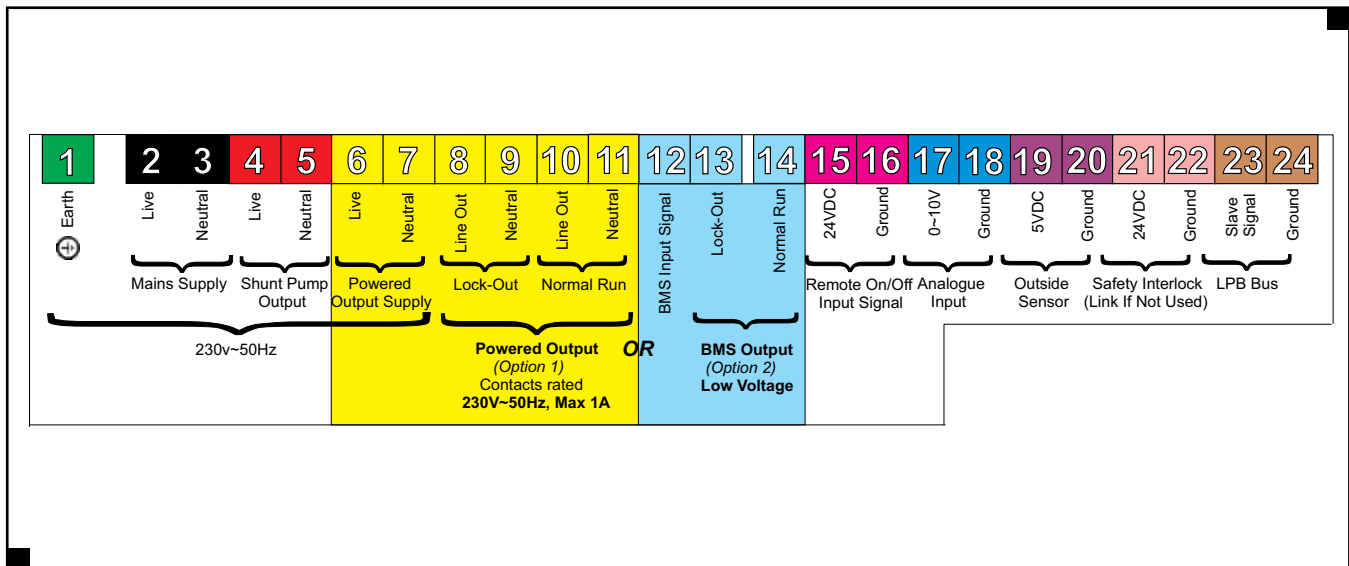


Wiring Diagram

Sherborne SE Boilers

The following electrical connections are provided on each boiler:

- Supply live, neutral and earth
- Supply input for boiler fault and normal run signs
- Boiler fault alarm signal output
- Boiler normal run signal output
- 0-10v analogue control signal input
- Remote on/off control input
- Boiler shunt pump output
- Safety interlock circuit input



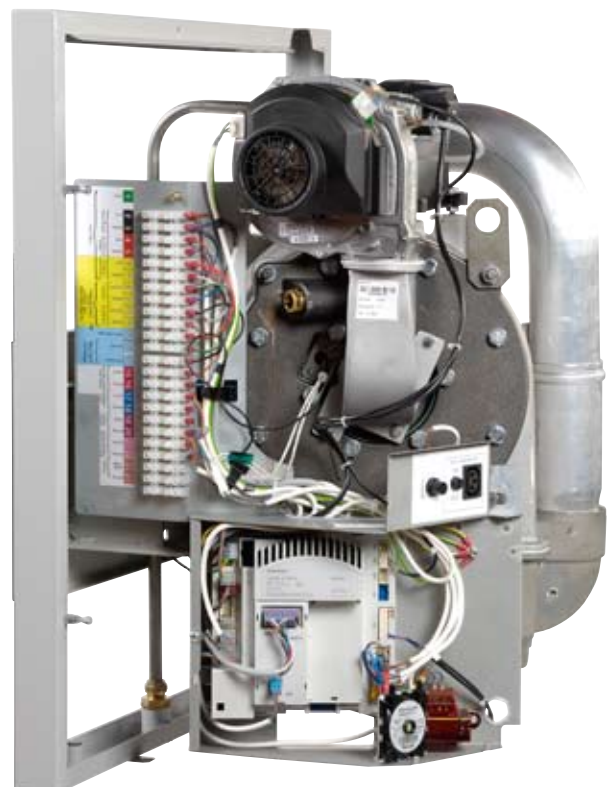
Electrical Connections

There is a gland plate fitted in the bottom of the boiler mounting frame to accept cables for power supply and controls. A single terminal rail is fitted inside the front cover, and all external connections are made to this terminal rail.

Power Supply

An independent isolator and fused electrical supply is recommended for each boiler. Supply 230 volt, 50Hz, single phase. Wiring external to the boiler must be installed in accordance with IEE Regulations and any local regulations which apply. Wiring must be completed in heat resistant 3 core cable, (size 1.0 mm² c.s.a.) Fascia fuse rating is 2 amp. External fuses should be rated 6 amps for each boiler.

To prevent drawings excessive current (>1 amp) through the boiler control panel, it is recommended that pumps are connected via contactors.



Large terminal block for all wiring connections

Wiring Diagram

Cascade & Heating Zone Controls

Controls Installation

The RVA46 and RVA47 controls are designed for panel mounting. It is recommended that the controls are mounted with the fascia exposed externally for ease of use.

All electrical connections use polarised coloured screwed terminal blocks to ensure that once installed and commissioned, connections are easy to relocate in their original position, if removed.

The LPB bus communication cable between controllers and boiler can be extended to a maximum 250 metres length. Cable should be (non interchangeable) two core twisted with 1.5mm² CSA.

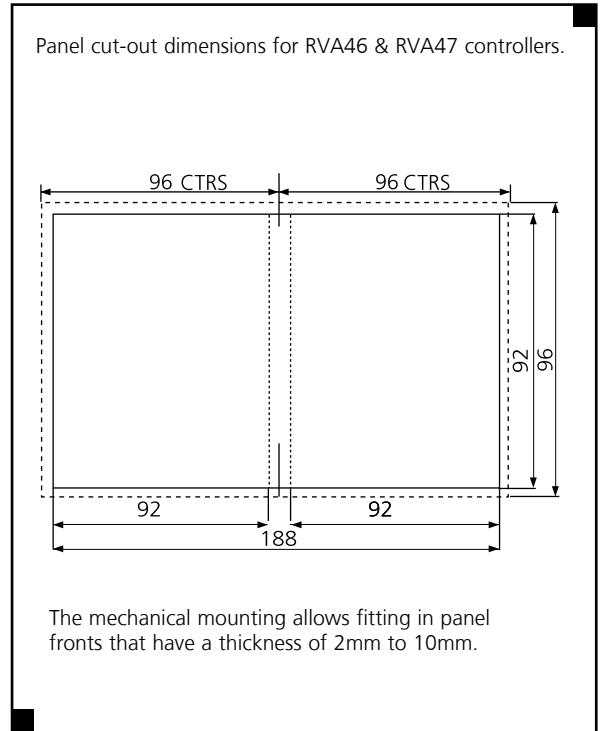
Room temperature sensors, QAA10, QAA50 and QAA70, may be located up to 50 metres from their respective RVA controller. Wiring between controllers and the room sensors using 2 wire (interchangeable) cable. Max 1.5mm² CSA.

External air sensor QAC34 may be located up to maximum 120 metres from the RVA controller. Usually connected to the RVA47, wiring using 2 wire (interchangeable) cable. Max 1.5mm² CSA.

Water temperature sensors, QAZ21, may be located up to maximum 120 metres from the RVA controller. Wiring using 2 wire (interchangeable) cable. Max 1.5mm² CSA.

Pump outputs are volt free contacts rated to 2 amps 230V max.

It is strongly recommended that pumps and mixing valves are connected via contactors, where higher running currents will be experienced.



Wiring terminal connections - RVA47 cascade controller								Wiring terminal connections - RVA46 zone controller																									
Low voltage terminals				Mains voltage terminals				Low voltage terminals				Mains voltage terminals																					
6	5	4	M	2	1	M	M	3	2	F	4	3	2	F	L	N	6	5	4	M	2	1	M	M	3	2	F	4	3	2	F	L	N
H1	B3	M	810	B9	MDA6	MBDB		Q3	Q1	F1				L	N	H1	M	B1	B9	MDA6	MBDB			Y2	Y1	F2			Q2	F6	L	N	
Remote enable circuit - H1/M - Volt free / 0-10 v Dc								Remote enable circuit - H1/M - Volt free / 0-10 v Dc																									
DHW cylinder sensor - B3/M								Ground for sensors and remote enable circuit																									
Ground for sensors and remote enable circuit								Flow sensor for mixing valve - B1/M																									
Cascade sensor - B10 / M								Outside air sensor - B9/M																									
Outside air sensor - B9 / M								Ground for room sensor																									
Ground for room sensor								Signal for room sensor																									
Signal for room sensor								Ground for LPB bus communication																									
Ground for LPB Bus Communication								Signal for LPB bus communication																									
Signal for LPB Bus Communication								Close output for mixing valve max 1AMP load																									
Live output for DHW cylinder pump max 1AMP load								Open output for mixing valve max 1AMP load																									
Live input for DHW cylinder pump 230v 50Hz								Live input for mixing valve 230v 50Hz																									
Live supply 230v 50Hz 5AMP								Live output for heating zone pump max 1AMP load																									
Neutral								Live input for heating zone pump 230v 50Hz																									
								Live supply 230v 50Hz 5AMP																									
								Neutral																									