

Simplicity Smart Equipment Four-Stage Expansion Control Board

Submittal Data

SE-SPU1004-0 (031-03032-000A / 1034521)

Description

The Four-Stage Expansion Control Board of the Simplicity Smart Equipment Controls (SEC) family enables the 25 - 40 range of packaged equipment for two additional stages of cooling and one additional stage of heating. Similar to all components of SSE, the four-stage expansion control board communicates via a BACnet® Master-Slave/Token-Passing (MS/TP) network, and is simply plug-and-play to the unit control board (UCB). The four-stage expansion control board communicates via Modbus® to the gas ignition controller. The gas ignition controller is a third-party supported product.

Features

- plug-and-play via BACnet communications bus
- two additional cooling stages
- one additional heating stage
- Modbus connection to gas ignition controller

Figure 1: (031-03032-000A / 1034521) Four Stage Expansion Control Board



Table 1: Selection Chart

Product Code Number	Description
SE-SPU1004-0 (031-03032-000A / 1034521)	Four-stage expansion control board, 7 analog inputs (AIs), 12 binary inputs (BIs), 6 binary outputs (BOs), and 5 analog outputs (AOs)

Repair Information

If the Four-Stage Expansion Control Board fails to operate within its specifications, replace the unit. For a replacement four-stage expansion control board, contact Source1.

Technical Specifications

Table 2: Four-Stage Expansion Control Board

Product Code	SE-SPU1004-0 (031-03032-000A / 1034521) Four-stage expansion control board
Power Supply Requirement	24 VAC (nominal, 20 VAC minimum/30 VAC maximum), 50/60 Hz, power supply class 2 (North America), safety
Power Consumption	15 VA maximum VA ratings do not include any power supplied to the peripheral devices connected to BOs.
Ambient Conditions	Operating: -40 to 158°F (-40 to 70°C); 10 to 90% RH noncondensing Storage: -40 to 194°F (-40 to 85°C); 5 to 95% RH noncondensing
Processor	RX630 Renesas® microcontroller
Memory	2 MB internal program flash, 32 KB internal E2data flash, 4 MB external serial flash memory
Input and Output Capabilities	7 AIs: 6: 10k resistance temperature detector (RTD), 1: 24 VAC voltage monitor 12 BIs: 24 VAC input with contact cleaning circuits 6 BOs: 6: relay outputs 5 AOs: 2 to 10 VDC analog output 10 mA maximum

Table 2: Four-Stage Expansion Control Board

Housing	Unpackaged printed circuit board (PCB) with silkscreen labels
Mounting	Mounted with nylon standoffs
Dimensions (H x W x D)	1.44 x 6.5 x 5.27 in. (36 x 165 x 133 mm)
Shipping Weight	2.2 lb (1.0 kg)
Compliance	United States: UL Recognized, File E107041, UL 916, Energy Management Equipment, UL1995, Heating and Cooling Equipment; FCC Compliant to CFR47, Part 15, Subpart B, Class B
	Canada: UL Recognized, File E107041, CSA 22.2 No. 236, Signal Equipment Industry Canada, ICES-003 – Recognized