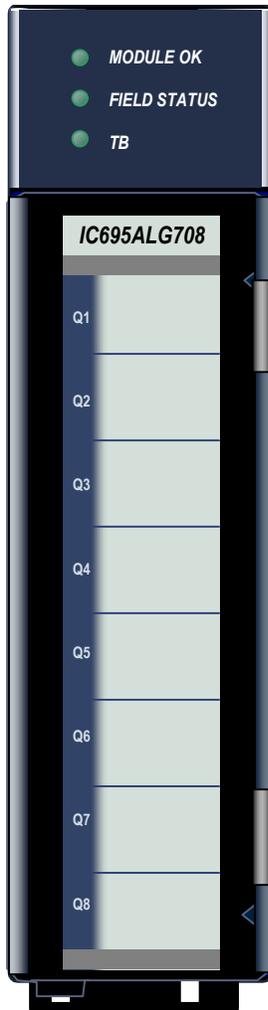


*Analog Output Module, 4 Channel Voltage / Current: IC695ALG704*  
*Analog Output Module, 8 Channel Voltage / Current: IC695ALG708*



**Non-Isolated Analog Voltage/Current Output** module

IC695ALG704 provides 4 configurable voltage or current output channels. **Non-Isolated Analog Voltage/Current Output** module IC695ALG708, shown at left, provides 8 configurable voltage or current output channels. Analog channels can be configured for these output ranges:

- Current: 0 to 20mA, 4 to 20mA
- Voltage: +/- 10V, 0 to 10V

These modules can be used with a Box-style (IC694TBB032), Extended Box-style (IC694TBB132), Spring-style (IC694TBS032), or Extended Spring-style (IC694TBS132) Terminal Block. Extended terminal blocks provide the extra shroud depth needed for shielded wiring. See chapter 15 for more information about Terminal Blocks. Terminal Blocks are ordered separately.

These modules must be located in an RX3i Universal Backplane. They require an RX3i CPU with firmware version 3.0 or later. Machine Edition Version 5.0 SP3 Logic Developer-PLC or later must be used for configuration.

**Isolated +24 VDC Power**

The module must receive its 24 VDC power from an external source. The external source must be connected directly to the module's terminal block. It cannot be connected via the TB1 connector on the RX3i Universal Backplane. **Module Features**

- Completely software-configurable, no module jumpers to set
- Individually enable or disable channels
- Clamping and Alarm Limits
- Latching of Alarms
- Configurable output bias
- Rapid channel acquisition times based on filter frequency
- Full autocalibration
- On-board error-checking
- Configurable scaling and offsets per channel
- High alarm, low alarm, high-high alarm, low-low alarm detection and reporting selectable per channel
- Module fault reporting
- Configurable Hold Last State or Output Defaults

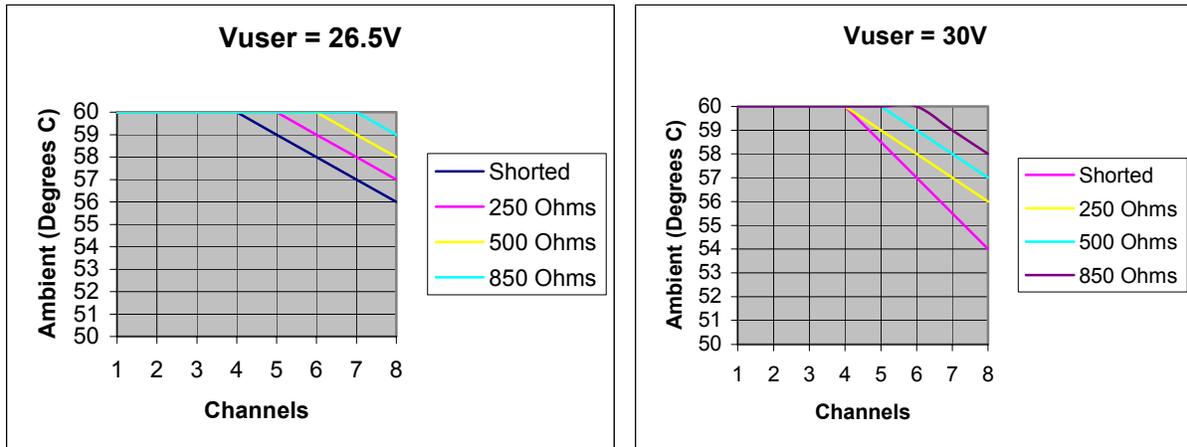
**Specifications: IC695ALG704 and IC695ALG708**

<b>Output Ranges</b>	Current: 0 to 20mA, 4 to 20mA Voltage: +/- 10V, 0 to 10V
<b>Backplane Power Requirements</b>	375 mA maximum at 3.3V
<b>Power Dissipation within Module</b> (V <sub>user</sub> =24V)	IC695ALG704: 4.8 Watts maximum IC695ALG708: 7.25Watts maximum
<b>Thermal Derating</b>	IC695ALG704: None IC695ALG708: Voltage mode: none Current mode: See next page.
<b>External Power Supply</b> V <sub>user</sub>	Voltage Range: +19.2V to +30VDC Current required for ALG704: 150mA maximum Current required for ALG708: 250mA maximum
<b>Resolution</b>	+/-10V: 15.9 bits, 0 to 10V: 14.9 bits, 0 to 20mA: 15.9 bits, 4 to 20mA : 15.6 bits
<b>Output Data Format</b>	Configurable as floating point IEEE 32 bit or 16-bit integer in a 32-bit field
<b>Update Rate</b> (Determined by I/O scan time, application dependent.)	8 milliseconds (approximate, all eight channels)
<b>Output Overvoltage Protection</b>	Current outputs only: -30V for 60 seconds, +30V for one hour
<b>Calibrated Accuracy</b>	Accurate to within 0.15% of full scale at 25°C Accurate to within 0.30% of full scale at 60°C In the presence of severe RF interference (IC 801-3, 10V/M), accuracy may be degraded to +/-1% FS.
<b>Output Load Reactance</b>	Current: 10μH maximum, Voltage: 1μF maximum
<b>Maximum Output Load</b>	Current: 850 Ohms maximum at V <sub>user</sub> = 20V Voltage: 2 Kohms minimum
<b>Output Gain Drift</b>	Voltage output: 20ppm per degree C typical Current output: 35ppm per degree C typical
<b>Output Settling Time</b>	Voltage or current output: 2ms, 0 to 95%.
<b>Isolation, Field to Backplane</b>	2550VDC for one second
<b>Maximum Compliance Voltage</b>	V <sub>user</sub> – 3V (minimum) to V <sub>user</sub> (maximum)

Refer to Appendix A for product standards and general specifications.

## Output Points vs. Temperature, Current Mode

Module IC695ALG704 has no thermal derating. Module IC695ALG708 has no thermal derating in voltage mode. Thermal deratings for module IC695ALG708 In current mode are shown below.



## LEDs

The **Module OK** LED indicates module status. The **Field Status** LED indicates whether the external +24 VDC power supply is present and is above the minimum level and whether or not faults are present. All LEDs are powered from the backplane power bus.

LED	Indicates
Module OK	ON Green: Module OK and configured. Quick Flashing Green: Module performing powerup sequence. Slow Flashing Green or Amber: Module OK but not configured. OFF: Module is defective or no backplane power present
Field Status	ON Green No faults on any enabled channel, Terminal Block is present, and field power is present. ON Amber and TB Green: Terminal Block is installed, fault on at least one channel, or field power is not present. ON Amber and TB Red: Terminal Block not fully removed, field power still detected. OFF and TB Red: Terminal block not present and no field power is detected.
TB	ON Red: Terminal block not present or not fully seated. See above. ON Green: Terminal block is present. See above. OFF: No backplane power to module.