

Analog Input Modules



Analog input modules receive signals from current and voltage input devices. Modules require a carrier base (IC200CHSxxx).

| | IC200ALG230 | IC200ALG240 | IC200ALG260 | IC200ALG261 |
|--|--|--|--|--|
| Product Name | VersaMax Analog Input Module, 12 Bit Voltage/Current, 4 Channels | VersaMax Analog Input Module, 16 Bit Voltage/Current Isolated, 8 Channel | VersaMax Analog Input Module, 12 Bit Voltage/Current, 8 Channel | VersaMax Analog Input Module, 15 Bit Differential Voltage, 8 Channel |
| Lifecycle Status | Active | Active | Active | Active |
| Input Range | ±10 VDC or 0-10 VDC | ±10 VDC, 4-20 mA | 4-20 mA, ±10 VDC or 0-10 VDC | ±10 VDC |
| Number of Channels | 4 | 8 Channel to channel isolated | 8 | 8 |
| External Power Supply | None | Range: 19.5-30 VDC including ripple; Current consumption: 100 mA maximum plus load currents | None | None |
| Resolution | Bipolar mode: 2.5 mV = 8 counts, Unipolar mode: 2.5 mV = 8 counts | Current mode: 381 nA nominal Voltage mode: 381 µV nominal | Current mode: 4 µA = 8 counts, Bipolar mode: 2.5 mV = 8 counts, Unipolar mode: 2.5 mV = 8 counts | Bipolar mode: 0.3125 mV = 1 counts |
| Update Rate | 0.4 ms | Approximately 20 mS max. @ 50 Hz filter frequency Approximately 16.7 mS max. @ 60 Hz filter frequency | 0.4 ms | 7.5 ms |
| Accuracy at 25°C | ±0.3% typical of full scale, ±0.5% maximum of full scale | ±0.1% maximum of full scale | ±0.3% typical of full scale, ±0.5% maximum of full scale | ±0.3% typical of full scale, ±0.5% maximum of full scale |
| Input Impedance | Voltage mode: 126 kOhms maximum, Current mode: 200 Ohms maximum | N/A | Voltage mode: 126 kOhms maximum, Current mode: 200 Ohms maximum | Voltage mode: 100 kOhms maximum |
| Input Filter Response | 5.0 ms | N/A | 5.0 ms | N/A |
| 5V Backplane Current Consumption (mA) | 125 maximum | 15 maximum | 130 maximum | 200 maximum |
| 3.3V Backplane Current Consumption (mA) | N/A | 120 maximum | N/A | N/A |
| LED Indicators | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates the presence of both logic power and user power. OK LED indicates module status. | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. |
| Dimensions (W x H x D) | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors |

Analog Input Modules



Analog input modules receive signals from current and voltage input devices. Modules require a carrier base (IC200CHSxxx).

| | IC200ALG262 | IC200ALG263 | IC200ALG264 |
|--|---|---|---|
| Product Name | VersaMax Analog Input Module, 15 Bit Differential Current, 8 Channel | VersaMax Analog Input Module, 15 Bit Voltage, 15 Channel | VersaMax Analog Input Module, 15 Bit Current, 15 Channel |
| Lifecycle Status | Active | Active | Active |
| Input Range | 0 to 20 mA or 4 to 20 mA | ±10 VDC | 0 to 20 mA or 4 to 20 mA |
| Number of Channels | 8 | 15 | 15 |
| External Power Supply | None | None | None |
| Resolution | 4 to 20 mA: 0.5micro Amp= 1 count; 0 to 20 mA: 0.625micro Amp = 1 count | Bipolar mode: 0.3125 mV = 1 count | 4 to 20 mA: 0.5micro Amp= 1 count; 0 to 20 mA: 0.625micro Amp = 1 count |
| Update Rate | 7.5 ms | 7.5 ms | 7.5 ms |
| Accuracy at 25°C | ±0.3% typical of full scale, ±0.5% maximum of full scale | ±0.3% typical of full scale, ±0.5% maximum of full scale | ±0.3% typical of full scale, ±0.5% maximum of full scale |
| Input Impedance | Current mode: 100 kOhms maximum | Voltage mode: 100 kOhms maximum | Voltage mode: 100 kOhms maximum, Current mode: 200 Ohms maximum |
| Input Filter Response | N/A | N/A | 24 Hz ±20% |
| 5V Backplane Current Consumption (mA) | 200 maximum | 150 maximum | 100 maximum |
| 3.3V Backplane Current Consumption (mA) | N/A | N/A | N/A |
| LED Indicators | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. | INT PWR LED indicates internally-generated field power is present. OK LED indicates backplane power is present. |
| Dimensions (W x H x D) | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in) , not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in) , not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in) , not including the height of the carrier or the mating connectors |

Analog Output Modules



Analog output modules provide voltage or current signals to analog output devices. Modules require a carrier base (IC200CHSxxx).

| | IC200ALG320 | IC200ALG321 | IC200ALG322 |
|--|---|---|---|
| Product Name | VersaMax Analog Output Module, 12 Bit Current, 4 Channel | VersaMax Analog Output Module, 12 Bit 0-10V Voltage, 4 Channel | VersaMax Analog Output Module, 12 Bit $\pm 10V$ Voltage, 4 Channel |
| Lifecycle Status | Active | Active | Active |
| Output Range | 4-20 mA | 0-10 VDC | ± 10 VDC |
| Number of Channels | 4 | 4 | 4 |
| External Power Supply | Range: 18-30 VDC including ripple; Current consumption: 160 mA maximum including load current | Range: 18-30 VDC including ripple; Current consumption: 125 mA maximum | Range: 18-30 VDC including ripple; Current consumption: 125 mA maximum |
| Resolution | 4 μA = 8 counts | 2.5 mV = 8 counts | 5 mV = 16 counts |
| Update Rate | 0.3 ms maximum | 0.3 ms maximum | 0.3 ms maximum |
| Accuracy at 25°C | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale |
| 5V Backplane Current Consumption (mA) | 50 maximum | 50 maximum | 50 maximum |
| 3.3V Backplane Current Consumption (mA) | N/A | N/A | N/A |
| LED Indicators | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. |
| Dimensions (W x H x D) | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors |

Analog Output Modules



Analog output modules provide voltage or current signals to analog output devices. Modules require a carrier base (IC200CHSxxx).

| | IC200ALG325 | IC200ALG326 | IC200ALG327 | IC200ALG328 | IC200ALG331 |
|--|--|---|--|---|--|
| Product Name | VersaMax Analog Output Module, 13 Bit ± 10 VDC or 0 to 10 VDC Voltage, 8 Channel | VersaMax Analog Output Module, 13 Bit Current, 8 Channel | VersaMax Analog Output Module, 13 Bit ± 10 VDC or 0 to 10 VDC Voltage, 12 Channel | VersaMax Analog Output Module, 13 Bit, 0 - 20 mA, 4-20 mA Current, 12 Channel | VersaMax Analog Output Module, 14 Bit Voltage/Current 1500 VAC Isolation, 4 Channel |
| Lifecycle Status | Active | Active | Active | Active | Active |
| Output Range | ± 10 VDC or 0 to 10 VDC | 4 to 20 mA (default) 0 to 20 mA (configured with jumper) | ± 10 VDC or 0 to 10 VDC | 4 to 20 mA (default) 0 to 20 mA (configured with jumper) | ± 10 VDC, 4-20 mA |
| Number of Channels | 8 | 8 | 12 | 12 single ended, one group | 4 |
| External Power Supply | Range: 18-30 VDC including ripple; Current consumption: 102 mA maximum | Range: 18-30 VDC including ripple; 2A inrush maximum, 100 mA maximum (no load), 185 mA maximum (all 8 outputs at full scale) | Range: 18-30 VDC including ripple; Current consumption: 112 mA maximum | Range: 18-30 VDC including ripple; Current consumption: 2A inrush maximum 100 mA maximum (no load) 270 mA maximum (all 12 outputs at full scale) | Range: 19.5-30 VDC including ripple; Current consumption: 100 mA maximum plus load currents |
| Resolution | 1.25 mV = 4 counts | 4-20 mA: 5 counts = 2.5 μ A (~12.7 bits) 0-20 mA: 4 counts = 2.5 μ A (13 bits) | 1.25 mV = 4 counts | 4-20 mA: 5 counts = 2.5 μ A (~12.7 bits) 0-20 mA: 4 counts = 2.5 μ A (13 bits) | Current mode: 381 nA nominal Voltage mode: 381 μ V nominal |
| Update Rate | 15.0 ms maximum | 15.0 ms maximum | 10.0 ms maximum | 15 ms maximum | 7 ms maximum |
| Accuracy at 25°C | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | $\pm 0.3\%$ of full scale (typical), $\pm 0.5\%$ of full scale (max.) $\pm 1\%$ of full scale (max.) | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | +/- 0.3% of full scale (typical), +/- 0.5% of full scale (max.) +/- 1% of full scale (max.) | $\pm 0.1\%$ maximum of full scale |
| 5V Backplane Current Consumption (mA) | 50 maximum | 50 maximum | 50 maximum | 50 maximum | 10 maximum |
| 3.3V Backplane Current Consumption (mA) | N/A | N/A | N/A | N/A | 115 maximum |
| LED Indicators | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates the presence of both logic power and user power. OK LED indicates module status. |
| Dimensions (W x H x D) | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors |

Analog Mixed Modules



Analog mixed modules provide maximum flexibility by combining inputs and outputs in a single, compact module. Modules require a carrier base (IC200CHSxxx).

| | IC200ALG430 | IC200ALG431 | IC200ALG432 |
|-------------------------------|---|---|---|
| Product Name | VersaMax Analog Mixed Module, 12 Bit Input Current 4 Channel/Output Current 2 Channel | VersaMax Analog Mixed Module, 12 Bit 0-10V Input 4 Channel/Output 0-10V 2 Channel | VersaMax Analog Mixed Module, 12 Bit $\pm 10V$ Input 4 Channel/Output $\pm 10V$ 2 Channel |
| Lifecycle Status | Active | Active | Active |
| Input Range | 4-20 mA | 0-10 VDC | -10 to +10 VDC |
| Output Range | 4-20 mA | 0-10 VDC | -10 to +10 VDC |
| External Power Supply | Range: 18-30 VDC including ripple; Current consumption: 125 mA maximum | Range: 18-30 VDC including ripple; Current consumption: 125 mA maximum | Range: 18-30 VDC including ripple; Current consumption: 125 mA maximum |
| Resolution | 4 μA = 8 counts | 2.5 mV = 8 counts | Input: 2.5 mV = 8 counts, Output: 5 mV = 16 counts |
| Update Rate | 0.3 ms maximum | 0.3 ms maximum | 0.3 ms maximum |
| Accuracy at 25°C | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale | $\pm 0.3\%$ typical of full scale, $\pm 0.5\%$ maximum of full scale |
| Input Impedance | 200 Ohms maximum | 120 kOhms minimum | 125 kOhms minimum |
| Input Filter Response | 5.0 ms | 5.0 ms | 5.0 ms |
| LED Indicators | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. | FLD PWR LED indicates field power is present. OK LED indicates backplane power is present. |
| Dimensions (W x H x D) | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors | 110 mm (4.3 in) x 66.8 mm (2.63 in) x 50 mm (1.956 in), not including the height of the carrier or the mating connectors |