

## CPU modules: BC5311-01A

### 200 MHz G3 CPU

- ▶ Base level CPU configuration; suitable for most general purpose applications
- ▶ Single 200MHz G3 processor board and no additional boards.
- ▶ Communications:
  - two Ethernet connectors
  - one USB port and two serial ports<sup>1</sup>

## Specifications

### System resources

Processor type	200 MHz 32-bit ARM
Number of processors	1
Operating system	Industrial real-time deterministic
Real-time clock	Yes
Flash file system memory	32 MB
Internal	4 MB
Removable	none

### Active program resources

Quickstep	
Simultaneous programs	1
Program runtime memory	4 MB
Max simultaneous tasks	96
Non-volatile variables (typ)	5000
Volatile variables (typ)	600
Max array size	> 240 columns x 2048 rows
C/C++	
Simultaneous programs	2
Program runtime memory	6 MB
Max simultaneous tasks	96
Non-volatile variables (typ)	5000
Volatile variables (typ)	600

### Note

1. Each serial port supports two independent RS-232 channels. The COM splitter cable (PN 000-288050) is required to access the second channel.
2. Document No. 950-530000-002



Actual size

# 5300 Automation Controller

## Specifications

### System resources<sup>1</sup>

Max number of local I/O modules	32
Max number of remote I/O modules	32
Max number of motion axes	64
Data logging storage	> 350,000 values
Web server	Yes

### Environmental

Operating temperature	
Horizontal installation	-25 to 50°C
Vertical installation	-25 to 45°C
Storage temperature	-40 to 85°C
Humidity	5 – 95% non-condensing
Protection	IP20
Operating vibration <sup>2</sup>	
Random (IEC 60068-2-64)	10 – 500 Hz, 2g rms
Sinusoidal (IEC 60069-2-6)	10 – 500 Hz, 2g rms
Operating shock <sup>2</sup> (IEC 660068-2-27)	15 g

### Ethernet communications

Number of ports <sup>3</sup>	2
Speed	10/100 base T
Type	Full duplex with DMA and flow control
Connector type	RJ-45
Network support	Wired and wireless
Firmware support	HTTP, FTP, UDP, TCP/IP, HTTP file server, raw socket
SNTP	Yes, supports automatic time synch
DHCP	Yes, automates IP address assignment
Modbus	Master and slave

### Serial communications

Number of channels	4
Channel type	RS-232
Max speed	115 KBaud
Connector type	RJ-11
Modbus	Master and slave (ASCII or RTU)

### Web server

Internally hosted	Yes
Number of web pages	Limited only by memory
Interfaces	HTTP
Remote monitoring and control	Via standard web browser

### HMI integration

CTC iPanel support	Fully integrated
Third party HMIs	Supported via serial or Ethernet
CT webHMI support	Yes

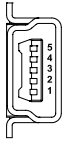
### Note

1. Capacities are not mutually inclusive.
2. Test results based on DIN rail mounting, all screws torqued to 5.2 in-lb.
3. Internal Ethernet switch.
4. Factory default IP address is 192.168.1.53

# CPU modules

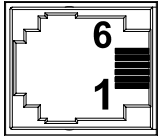
## Connector pinouts

### USB COM1 pinouts



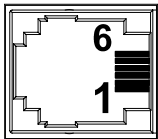
Pin #	Signal
1	USB Power
2	USB DM
3	USB DP
4	NC
5	GND

### COM1 and COM2 RS232 pinouts



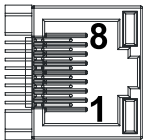
Pin #	Signal
1	TxD COM1
2	TXD COM2
3	Common
4	Common
5	RxD COM2
6	RxD COM1

### COM3 and COM4 RS232/RS485 pinouts



Pin #	Signal
1	TxD COM4
2	TXD COM3/A (+RS485)
3	Common
4	Common
5	RxD COM3/B(-RS485)
6	RxD COM4

### Ethernet 10 base-T pinouts



Pin #	Signal
1	TX0+
2	Tx0-
3	RX1+
4	NC <sup>1</sup>
5	NC <sup>1</sup>
6	RX1-
7	NC <sup>1</sup>
8	NC <sup>1</sup>

### CPU module



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## LED identification

PWR (Backplane power)	Steady Off = backplane rack not powered up Steady On = backplane rack powered up	
FLT (Backplane fault)	Steady Off = normal operation. No fault on local backplane Solid = hardware fault on local backplane Slow flash = software fault on local backplane Fast flash = DHCP negotiation in progress (CPU only) Blink = flash reprogramming in progress (CPU only)	
ST1 – ST3	Off/Off/Off = Normal operation (CPU only) Off/Off/On = Global hardware fault (CPU only) Off/On/Off = Global software fault (CPU only) Off/On/On = Corrupt user program or data table or NVRAM On/Off/Off = Loading program or flashing flash	On/Off/On = DHCP in progress, program not running On/On/Off = Program mode – stopped or if booting awaiting abort boot escape sequence On/On/On = Power up/reset state or program node restarting reset (CPU only)
SL1 – SL3	Fault for local slot when local FLT or global SLT1-3 are in a non-normal operation state. Binary code identifies the affected local slot as follows: Off/Off/Off = Local slot #1 Off/Off/On = Local slot #2 Off/On/Off = Local slot #3 Off/On/On = Local slot #4 On/Off/Off = Local slot #5 On/Off/On = Local slot #6 On/On/Off = Local slot #7 On/On/On = Local slot #8	