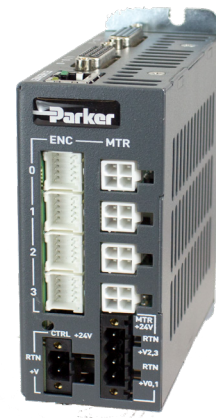


# ACR7000 Series

Multi-Axis Motion Controllers

**In-Position**  
**Technologies**  
www.iptech1.com



## Integrated Motion Solutions

The new ACR7000 series combines performance, value and scalability that meets and exceeds OEM expectations. Built on the well-known ACR9000 platform, the 7000 series utilizes re-imagined hardware designs, well-suited for table top and laboratory style instruments.

Microstepping drives are integrated with the multi-axis motion controller into a single package, saving space, cabling, and reducing installation complexity. Standard 4 axis systems are readily available for prototypes and unique machine designs, yet can easily scale for high volume OEMs. The ACR7000 series is perfect building block for customer specific motion system solutions. Parker's engineering and manufacturing teams have the expertise and agility needed for machine builders looking for a long-term partner.

## Contact Information:

Parker Hannifin Corporation  
**Electromechanical & Drives Division**  
5500 Business Park Drive  
Rohnert Park, CA 94928

phone: 800.358.9068 / 707.584.7558

email: emn\_support@parker.com

www.parkermotion.com



## Specifications

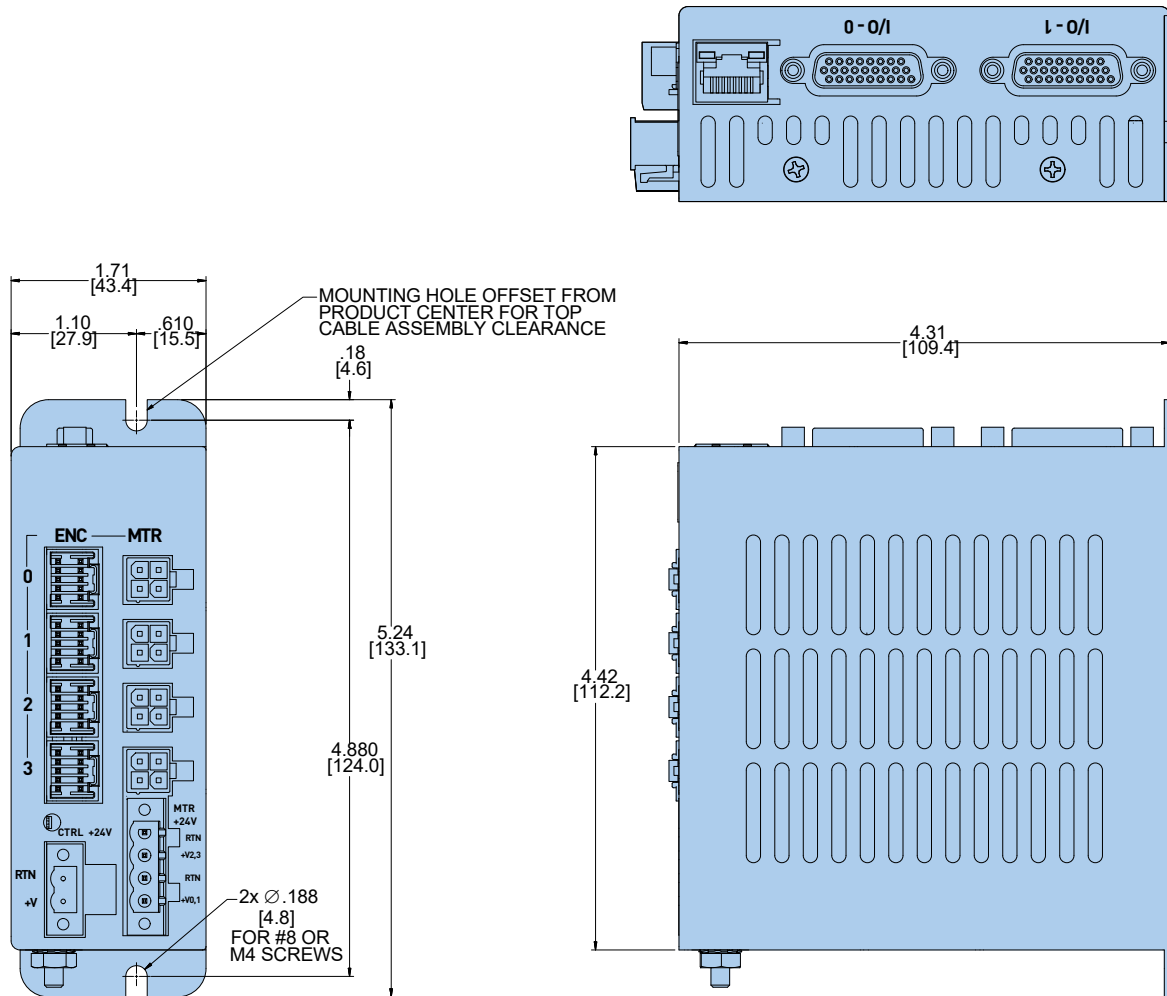
|                       |  |
|-----------------------|--|
| Part Number           | ACR74T-A4V2C1  |
| Axes                  | 4  |
| Motor Output          | 4 Amps/axis (peak of Sine)<br>Each axis is user selectable from 0.5 to 4<br>Two-phase Stepper Motors |
| Motor Input Voltage   | 24VDC  |
| Control Input Voltage | 24VDC, 20W   |
| Drive Resolution      | Microstepping, selectable to 1/256 steps<br>(51200 steps/rev for 1.8 deg motors)                     |
| Digital Inputs        | 20 programmable inputs, 5-24 VDC<br>Includes 8 available for Position Capture                        |
| Digital Outputs       | 8 programmable outputs, 5-24 VDC<br>Includes 4 available for position based output                   |
| Power Stage Enable    | Dedicated input shuts down all drives  |
| Encoder Inputs        | 4 Incremental encoders,<br>1.6 MHz, differential, A, B, Z signals                                    |
| Processor             | 800MHz ARM® Cortex®-A8 processor   |
| Communications        | 100 Base-T, RJ-45 connector<br>Supports TCP/UDP and EtherNet/IP                                      |
| Development Software  | Parker Motion Manager  |
| API                   | ComACRServer<br>Libraries for C++, C#, VB.NET, etc   |
| Programming Language  | AcroBASIC with 1Mb of user memory  |
| Protective Circuits   | Short Circuit, Over Voltage, Over Current, Over<br>Temperature                                       |
| Standards             | CE (LVD), CE (EMC), RoHS   |

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# Parker Controllers

## Dimensions



## Ordering Information

|                       | ①    | ② | ③ | ④ | ⑤  | ⑥     |
|-----------------------|------|---|---|---|----|-------|
| <b>Order Example:</b> | ACR7 | 4 | T | - | A4 | V2 C1 |

- ① **Series**  
ACR7 ACR7000 Series
- ② **Number of Axes**  
4 4 Axes
- ③ **Drive Technology**  
T Stepper
- ④ **Motor Output Current**  
4 4 Amps
- ⑤ **Drive Voltage**  
2 24VDC
- ⑥ **Enclosure**  
1 EMC Cover

# Connections

**ENC - Encoder Input Connectors (4)**

| Pin | Signal |
|-----|--------|
| 1   | A+     |
| 2   | A-     |
| 3   | B+     |
| 4   | B-     |
| 5   | Z+     |
| 6   | Z-     |
| 7   | +5V    |
| 8   | GND 5V |
| 9   | Earth  |
| 10  | Earth  |



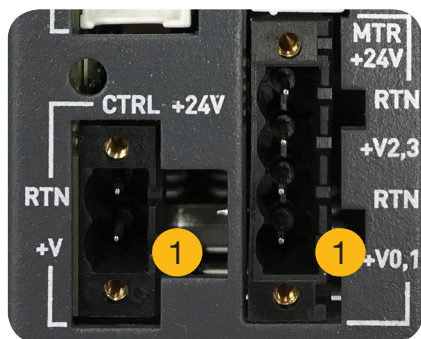
**MTR - Motor Output Connectors (4)**

| Pin | Signal   |
|-----|----------|
| 1   | Motor A- |
| 2   | Motor B- |
| 3   | Motor A+ |
| 4   | Motor B+ |

|       | I/O - 0      | I/O - 1   |
|-------|--------------|-----------|
| Pin   | Signal       | Signal    |
| 1     | Input 0      | Input 6   |
| 2     | Input 1      | Input 7   |
| 3     | Input 2      | Input 8   |
| 4     | Input 3      | Input 9   |
| 5     | Input 4      | Input 10  |
| 6     | Input 5      | Input 11  |
| 7     | Input 24     | Input 28  |
| 8     | Input 25     | Input 29  |
| 9     | Input 26     | Input 30  |
| 10    | Input 27     | Input 31  |
| 11    | D.GND        | D.GND     |
| 12    | Output 32    | Output 36 |
| 13    | Output 33    | Output 37 |
| 14    | Output 34    | Output 38 |
| 15    | Output 35    | Output 39 |
| 16    | D.GND        | D.GND     |
| 17    | Enable Input | N/C       |
| 18    | GND          | D.GND     |
| 19    | 24VDC out    | 24VDC out |
| 20-26 | D.GND        | D.GND     |

**CTRL +24V Control Power Input**

| Pin | Signal |
|-----|--------|
| 2   | GND    |
| 1   | +24VDC |



Mating connectors removed for detail

**MTR +24V Motor Power Input**

| Pin | Signal         |
|-----|----------------|
| 4   | GND24V         |
| 3   | Motor 2/3 +24V |
| 2   | GND24V         |
| 1   | Motor 0/1 +24V |

