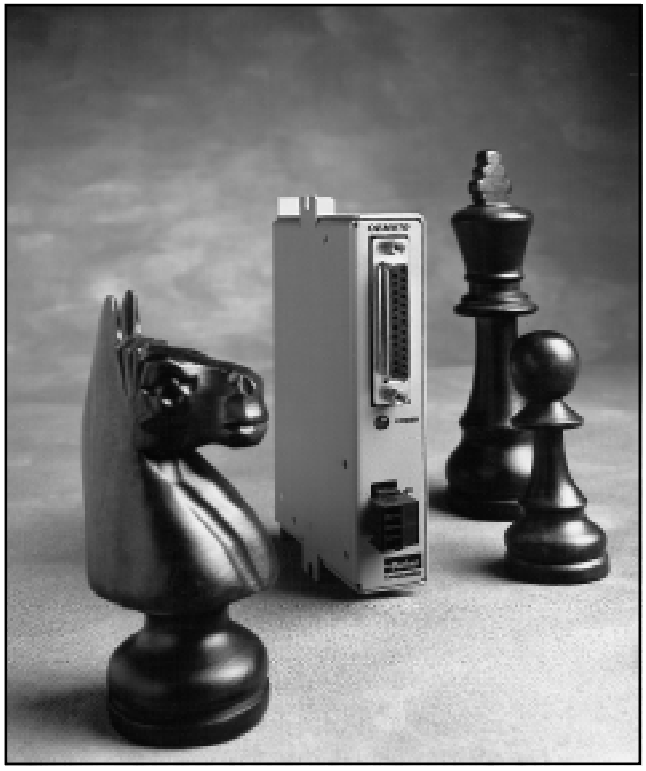
OEM070 compact servo controller for single-axis applications

The OEM070 servo controller provides a ±10V torque demand signal suitable for standard analogue-input servo drives. It accepts feedback from an incremental encoder and incorporates a full PID loop for position control. Based on Parker's X-Code command language, the controller is programmed via a standard RS232C serial link and includes a non-volatile memory for storing motion sequences. Multiple controllers may be daisy-chained on the same serial port.

In addition to motion control, the OEM070 has programmable outputs for initiating separate machine functions.



Features

Motion

- Single axis ±10 VDC analogue control with encoder feedback
- Compatible with industry standard ±10 VDC analogue input servo drives
- Incremental encoder input frequency up to 960 kHz
- Full PID position servo control to maximise system performance

I/O

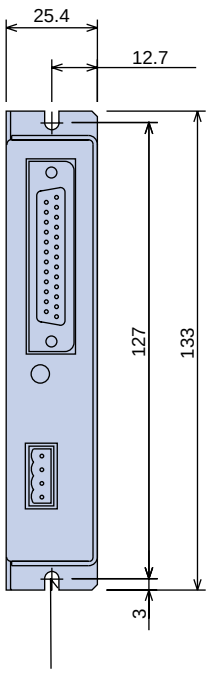
- 2 programmable outputs for machine interaction
- 5 programmable inputs configurable as trigger, sequence select, remote stop, remote start, and home switch inputs
- Dedicated CW and CCW end-of-travel limits

Language

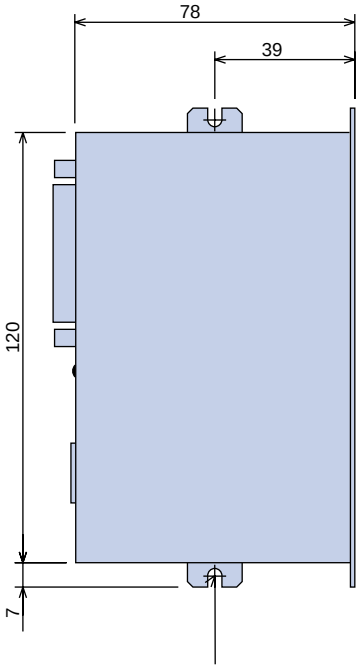
- Simple, user-friendly X-Code command language
- 2K Bytes of battery-backed RAM to store up to 7 command sequences

Interface Capability

- Standard RS-232C serial communications interface
- Address selectable for daisy chaining up to 255 units
- Only two screws required to mount
- Mounts either for minimum footprint, or for minimum depth
- Snap-on sheet metal cover protects against contaminants
- Standard 25 pin-D connector for single connection wiring

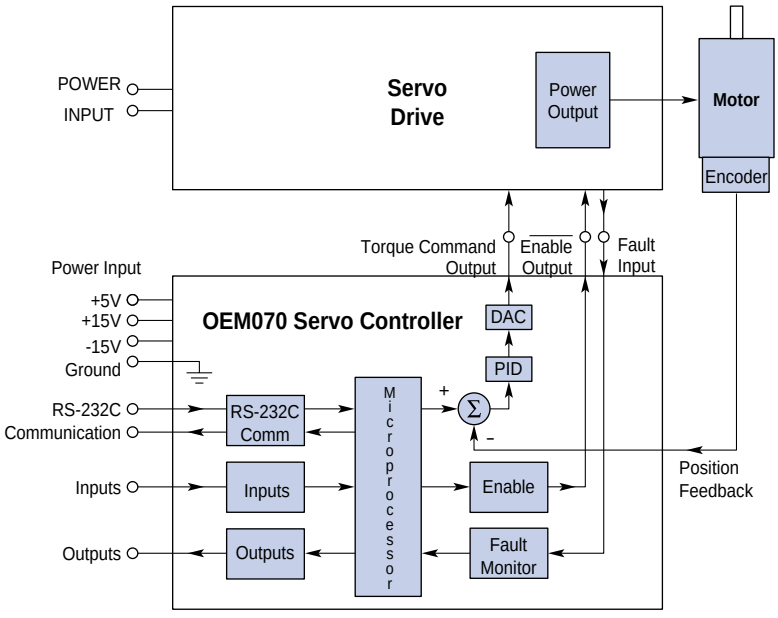


PROVISION FOR
M3 MOUNTING SCREWS
(2 PLCS.)



OPTIONAL MOUNTING TABS FOR
MINIMUM DEPTH CONFIGURATION

Parameter	*Value*
Performance	
Position Range	±1,073,741,823 encoder counts
Velocity Range	0.01 to 200 rps
Acceleration Range	0.01 to 9999 rps^2
Velocity Accuracy	±0.02% of maximum rate
Velocity Repeatability	±0.02% of set rate
Digital Servo Loop	
Update Time	266 microseconds
Output	12-bit DAC
Servo Tuning	RS-232C command interface
Tuning Parameters	PID with digital filter
Power	
DC input	+15 VDC, 15 mA
	-15 VDC, 15 mA
	+5 VDC, 300 mA
RS-232C Interface	
Connections	3-wire (Rx, Tx and GND) connection
Daisy chaining	Up to 255 OEM070 units
Address settings	Via number command
Parameters	9,600 baud, 8 data bits, 1 stop bit, no parity
Inputs	
Encoder	Two-phase differential (recommended) or single-ended (+5 VDC TTL compatible); 960 kHz max frequency
General Purpose	5 user-defined, 2 hardware limit, fault (0–5 V TTL)
Outputs	
General Purpose	2 user-defined, enable (buffered TTL)
Fault Output	Active HIGH:open collector, 24 VDC max



Parker Hannifin
Electromechanical Division
Offenburg, Germany & Poole, UK