

C-809.40

4-Channel Servo-Amplifier Motion I/O Interface for NI Motion Controllers



C-809.40 Amplifier/Interface shown with NI PCI 7344 Card and two PI micropositioning stages.



Its automatic analog / PWM conversion supports linear and rotary stages and actuators using either type of drive**. To facilitate neat and professional installations, all motor power, encoder signals and limit/reference switch information is provided via front-panel connectors***. Convenient fan-out of auxiliary and I/O lines from the NI 7344 is also provided via a front-panel sub-D connector. 24 VDC power outputs are also provided to support stages with internal PWM amplifiers. The C-809.40 is a particularly neat and tidy solution to using PI high-performance motorized and piezo-motor servo stages with NI's popular controllers.

The C-809.40 is also compatible with many third-party mechanisms - consult with your local PI applications engineer for more information.

Application Examples

- Quality control
- Test equipment
- Micromachining
- Biotechnology
- Micromanipulation
- Scanning microscopy
- Photonics packaging automation
- Fiber optic instrumentation
- Fiber alignment
- Metrology

Ordering Information

C-809.40
4 Channel Servo Amplifier Motion I/O Interface for NI Motion Controllers.

- **Compatible with NI Motion Controllers**
- **Integrated 4 Channel Analog & PWM Amplifier**
- **Plug & Play Operation**
- **Uses Standard 68 Pin NI Connection Cable**
- **37 Pin I/O Interface for User-Specific Purposes (Triggering, etc.)**

Many customers wish to use PI's unique DC servomotor and piezomotor motion devices with third-party controls such as the 4-axis 7344 from National Instruments. To support these customers and ease the job of cabling and provisioning, the C-809.40 provides four axes of amplification, conditioning and analog/PWM conversion to drive open- and closed-loop DC servomotor stages* of up to 6W. The C-809 also converts differential encoder signals into the single-ended signals required by NI controllers.

Technical Data

Model	C-809.40
Function	Amplifier/Interface for National Instruments motion controllers
Channels	4
Output power	Analog: 6 watts/channel, PWM: power for ActiveDrive™ stages supplied by separate power-supply 24V/channel
Max. power	110-120 W / 24 V (for PWM stages)
Current limitation	1 A per channel for analog DC motors (short-circuit proof)
Motor connectors	15-pin (f) sub-D per channel
I/O Connector	37-pin sub-D f connector
Motion I/O Connector	68-pin VHDCI motion I/O connector (SCSI 4 type), works with NI cable SHC68-C68-S
Dimensions	450 x 105 x 390 mm
Power supply	Wide-range, 90 to 240 V AC at 50 to 60 Hz

* Standard linear and rotary stages with DB 15 connector and DC motor. For compatibility with PILine™ piezomotor stages, please ask individually. Motor brake functionality is not supported.

** Call PI for the configuration changes required if you want the C-809 to receive and route PWM signals generated by the NI card.

*** The appropriate cable SHC68-C68-S is available from National Instruments, order number 186380-02 (2 m length) or 186380-0R5 (0.5 m length).