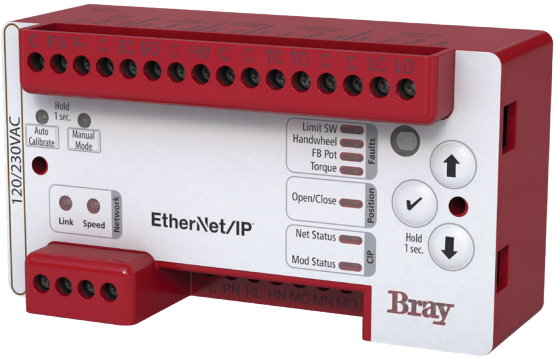
EtherNet/IP™

Bray's Series 70 Servo NXT Ethernet/IP™ control module offer expanded capabilities with Ethernet/IP connectivity built directly into the S70 actuator family. The Series 70 Servo NXT Ethernet/IP™ control module has ODVA Certification to guarantee network compatibility.

Bray is the first manufacturer to incorporate Rockwell's Add-on Profile (AOP) for an Ethernet/IP capable actuator, allowing the device to connect directly to Rockwell PLC's over Ethernet . This AOP enables customers to seamlessly register and quickly configure Bray S70 Actuators into Rockwell PLC's via the Studio5000 software. For non Rockwell installations, a standard EDS is available for commissioning.

The Servo NXT EtherNet/IP™ module uses data to provide precise modulating service for accurate valve position control and reporting of operational characteristics by transmitting data over the EtherNet/IP protocol directly to the PLC for visualization and fault notifications.

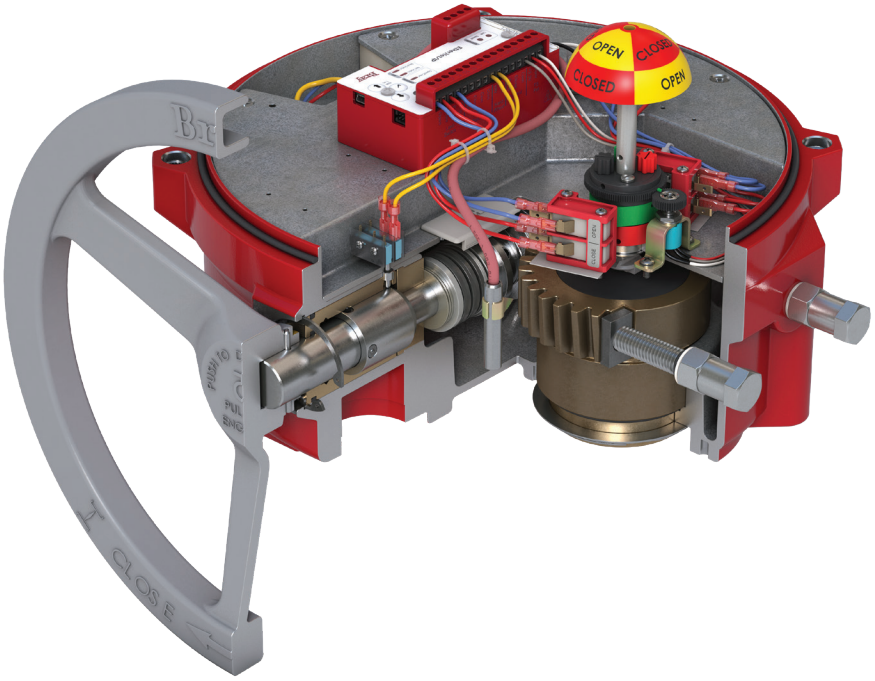
Series 70 Servo NXT EtherNet/IP™ control module provides feedback and diagnostics data over TCP/IP including position, status, alarms, stroke count, motor operating time, motor current, stroke times, directional changes and more, providing actionable increased diagnostics capability and predictive maintenance by detecting deterioration.


## PRODUCT HIGHLIGHTS

The Servo NXT EtherNet/IP™ offers precise modulating service for accurate valve position control.

- Available in actuator output torques: 300 to 18000 lb-in (34 to 2034 N-m)
- Multiple supply voltage options include: 120/230/24 VAC, 50/60 Hz and 24 VDC
- Manual Override
- User-friendly module interface
- One-touch automatic calibration
- Network enabled position commands
- Full Open/Close or intermediate position
- Advanced control of proportional band and deadband
- Automatic pulsing mode for precise positioning
- Self diagnostics




## FEATURES & SPECIFICATIONS

| | |
|---|---|
| **Connectivity** | 10/100 Mb/s |
| **Input signal** | EtherNet/IP |
| **Retransmission signal** | EtherNet/IP |
| **Independent isolation** | Control signal input and output |
| | Control signals and power |
| **Display** | Menu driven auto dimming LED |
| **Menu navigation** | Up/Down arrows with select (✓) buttons |
| **Configuration** | Menu or Network selectable to non-volatile memory |
| **Calibration** | Auto calibration sequence for travel limits |
| **Deadband** | Configurable 1% to 6% |
| **Reverse acting** | Configurable for inverted control and feedback |
| **Speed Control** | Independent for open and close direction |
| **Fail Position (loss of signal)** | Configurable close, open, last |
| **Manual mode** | Local operation via Servo NXT user interface |
| **Fault Indications** | Loss of command signal |
| | Limit switch |
| | Handwheel engaged |
| | Feedback pot |
| | Torque switch |
| | Jammed valve/motor stalled |
| **Health monitor** | Heartbeat — Backlit blinking Bray logo |

## ENHANCED THROUGH PARTNERSHIP

BRONZE
Technology Partner
A ROCKWELL AUTOMATION PARTNER

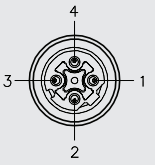
Bray is a Rockwell Automation Encompass Partner, which means this product is supported by Rockwell's partnership and distribution network.

### Studio5000

Bray is the first manufacturer to provide Rockwell's Add-on Profile (AOP) for an EtherNet/IP capable actuator. This AOP enables customers to seamlessly register and quickly configure Bray S70 Actuators into Rockwell PLC's via the Studio5000 software. As a result, customers automatically see I/O data with meaningful and descriptive names.

This saves time and money during the design and commissioning phases by reducing complexity because guidance and online information in configuring the product is included in the AOP, improving the out-of-box experience. Another benefit is the device configuration data is stored in the Logix controller, enabling Automatic Device Configuration anytime the device is replaced.

Quick ethernet connectivity may be achieved by attaching directly to the optional EtherNet/IP M12, 4-pin, "D" coded connector.




1 WHITE/ORANGE (+TX)
2 WHITE/GREEN (+RX)
3 ORANGE (-TX)
4 GREEN (-RX)

Terminate directly onto the Servo NXT EtherNet/IP TX+/TX- & RX+/RX- terminal points.


## CONTROL, FEEDBACK AND DIAGNOSTICS

| | |
|---|---|
| **Command** | Intermediate position, Open, Stop, Close |
| **Feedback** | Position, Status, Alarms |
| **Configuration** | Command/feedback resolution |
| | Open/Close speed |
| | Start/Stop position of speed control |
| | PST Offset/ deviation, motor stall detection |
| **Energized time** | Time ServoNXT controller has been powered on |
| **Full Strokes** | Number of full strokes completed |
| **Stroke time** | Time of last full stroke |
| **Direction changes** | Quantity of commanded motor direction reversals |
| **Motor operating time** | Hours of motor operation |
| **Motor current** | Measured value (0 - 5.0A) |
| **PST Open time — Initial** | Initial stroke time to reach open PST position |
| **PST Close time — Initial** | Initial stroke time to reach close PST position |
| **PST Open time — Last** | Last stroke time to reach open PST position |
| **PST Close time — Last** | Last stroke time to reach close PST position |

Note: For additional diagnostics information, see IOM.