

Eaton AxisPro proportional valves

# The brains to handle the brawn

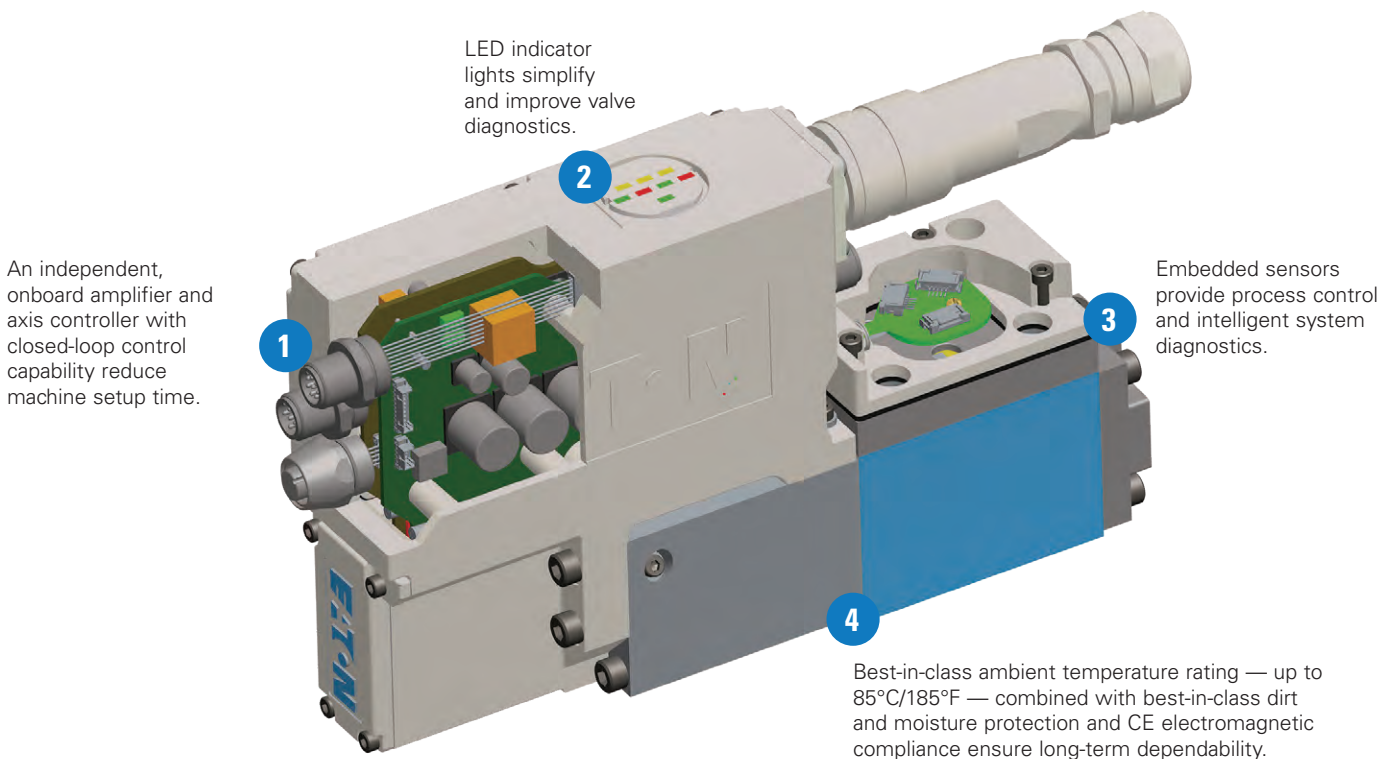


**EATON**

*Powering Business Worldwide*

# Intelligent control

For precise hydraulic power management, count on total control. Eaton AxisPro® proportional valves deliver exactly the right power exactly where you need it — saving time, energy and costs.



# Three levels of performance. Unlimited design flexibility.

From plastics molding, metal forming and primary metals manufacturing to pulp and paper milling, woodworking machinery and wind turbines, AxisPro proportional valves deliver the precise levels of control you need for your most demanding and sophisticated applications. By integrating controller functions into the valve itself, AxisPro valves maximize machine performance and minimize the possibility of unscheduled maintenance.

Available with both centralized and distributed control capabilities, AxisPro valves are designed for complete application flexibility. You can configure them to optimize valve availability and inventory levels. And the open architecture enables you to custom design a wide range of motion control solutions to meet your specific application needs.

## Reducing costs while increasing productivity and uptime

AxisPro proportional valves are another significant advancement in Eaton-enabled lean automation:

- With motion control built in, AxisPro valves easily integrate into distributed controls architecture to help cut wiring costs and reduce machine build time.
- Fast, onboard motion control integrated with a cost-effective, networked control system boosts machine cycle time.
- Intelligent onboard diagnostics help predict potential maintenance issues, improving reliability and uptime.
- Leveraging the communications capability of a CANopen bus network, AxisPro valves cut the costs and space required for mounting external sensor communication nodes.

Level 1	Level 2	Level 3
<p>Level 1 is ideal for traditional applications of servo performance proportional valves. It is less expensive than a servo valve, but comes with onboard electronics so you don't need a control card.</p> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Flexible control</li> <li>• Less inventory to stock</li> <li>• Reduces maintenance costs and downtime</li> <li>• Easy control diagnostics</li> </ul> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Software configurable</li> <li>• Higher flow and pressure rating</li> <li>• IP65 &amp; 67 rating</li> <li>• Ambient temp up to 85°C/185°F</li> <li>• No air bleeding</li> <li>• Visual diagnostic LEDs</li> </ul> <p><b>KBS*-03</b> <b>KBS*-05</b> <b>KBH*-05</b> <b>KBH*-07</b> <b>KBH*-08</b></p>	<p>Simplify PLC requirements with onboard motion control. Eliminate latency by closing the control loop on the valve to increase dynamic performance.</p> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Reduced machine setup time</li> <li>• Better control performance</li> <li>• Machine scalability</li> <li>• Comprehensive diagnostic data available via field bus</li> <li>• Differentiated machine performance through customization</li> </ul> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Digital bus communication</li> <li>• Onboard axis controller provides position, speed, pressure and multi-mode control</li> <li>• Sensor input for axis control and machine monitoring</li> <li>• Open architecture allows for custom applications</li> </ul> <p><b>KBS*-03</b> <b>KBS*-05</b> <b>KBH*-05</b> <b>KBH*-07</b> <b>KBH*-08</b></p>	<p>Additional built-in pressure and temperature sensors make commissioning faster and simpler.</p> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>• Flexible control strategy using built-in sensors</li> <li>• More diagnostic data available from sensors to provide information about machine health and performance</li> </ul> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Embedded A, B, P &amp; T pressure sensors on all four ports</li> <li>• Temperature sensors on tank port</li> </ul> <p><b>KBS*-03</b> <b>KBS*-05</b></p>

AxisPro valves are available in five body sizes to accommodate flows of up to 375 LPM.

	Size	Technology	Max rated flow
<b>Single stage</b>	D03	Spool/sleeve (rated @ 70 bar)	40 LPM @ 70 bar
	D05	Spool/sleeve (rated @ 70 bar)	100 LPM @ 70 bar
<b>Two stage</b>	D05	Spool in body (rated @ 10 bar)	95 LPM @ 10 bar
	D07	Spool in body (rated @ 10 bar)	230 LPM @ 10 bar
	D08	Spool in body (rated @ 10 bar)	375 LPM @ 10 bar



# Total control starts with complete configurability

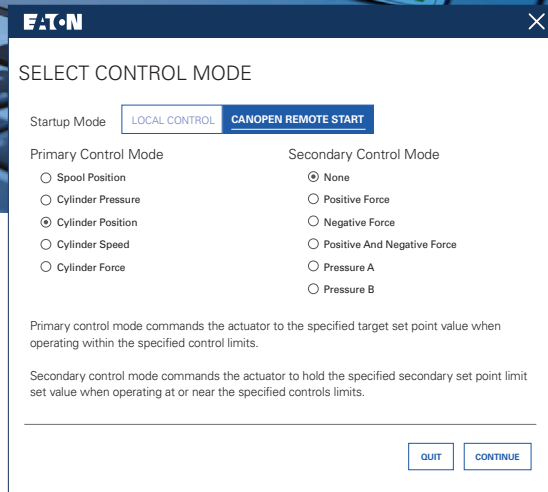
AxisPro valves are quickly and easily configured with Eaton's Pro-FX® Configure software. The program's setup wizard takes the user through a step-by-step workflow to configure and tune the valve. Featuring parameter-based tuning, the software simplifies everything from setup to commissioning, helping you get the machine to the customer faster.

## Benefits

- Intuitive, user-friendly interface enables quick, simple configuration
- No need to tune PID controller for most applications, saving time

## Features

- Allows users to configure:
  - Primary and secondary control modes
  - Command signal type
  - Spool and application feedback signal types
  - Enable pin functionality
  - Local/remote control
- Alert library for diagnostics
- Plot data to help tune the application



## Custom design options for application flexibility

Designed around open standards and built on the IEC-61131-3 programming standard, Eaton's Pro-FX Control programming software lets you create custom applications for AxisPro valves. The result? Machines that do exactly what you need them to do.

To learn more about AxisPro valves, visit [Eaton.com/axispro](http://Eaton.com/axispro)

Eaton  
Hydraulics Group USA  
14615 Lone Oak Road  
Eden Prairie, MN 55344  
USA  
Tel: 952-937-9800  
Fax: 952-294-7722  
[eaton.com/hydraulics](http://eaton.com/hydraulics)

Eaton  
Hydraulics Group Europe  
Route de la Longeraie 7  
1110 Morges  
Switzerland  
Tel: +41 (0) 21 811 4600  
Fax: +41 (0) 21 811 4601

Eaton  
Hydraulics Group Asia Pacific  
Eaton Building  
No. 7 Lane 280 Linhong Road  
Changning District, Shanghai  
200335 China  
Tel: (+86 21) 5200 0099  
Fax: (+86 21) 2230 7240