

AxisPro®

Industrial proportional valves

New all-digital design and Ethernet communication protocols



Next generation design, expanded possibilities

AxisPro® proportional valves, the flagship industrial valve line from Vickers by Danfoss, features a new digital design that unlocks advanced communication capabilities across its entire range, including directional control, servo performance, and two-stage valves. Supporting protocols such as Profinet®, EtherCAT®, Ethernet/IP, and CANopen, these innovative valves deliver precision control for a wide range of applications. Their robust design and integrated diagnostics ensure reliable performance and facilitate rapid troubleshooting, minimizing downtime. Programmed using Pro-FX™ Configure v2 software, the valves' embedded intelligence simplifies traditionally complex setup and control. Furthermore, the plug-and-play design reduces machine build time and lowers installation costs.

Pro-FX® Configure v2 software

Pro-FX Configure v2 software offers a streamlined, step-by-step workflow which takes the user through valve setup for specified control modes including spool position, cylinder position, pressure, speed, or force. The software enables you to configure the valves by connecting via USB, Ethernet or CANbus, simplifying everything from setup to tuning and commissioning.

For support inquiries, please email: imcproductsupport@danfoss.com

Features

The new AxisPro Proportional Valve provides a range of control capabilities in a modular design.

- Enhanced connectivity with IOT enabled features
- PC-based Pro-FX Configure v2 software enables custom programming and real-time changes for cylinder, motor control on position, speed and pressure/force
- AxisPro valve models include directional and servo performance, single and dual stage
- industry-leading, high-dynamic hydraulic performance enables open and closed-loop control applications
- Top-mounted LED lights provide on-valve diagnostics
- Best-in-class ingress protection – rated to IP65 and IP67, withstands 70C (158F) ambient temperature.
- Option for 700 hours salt spray protection
- 12-pin connector option, with dual supply and enable/ready signals used in CNC and IM applications
- Improved vibration resistance and additional high-vibration option
- Experienced application support teams ready to help with your application

Communication Protocols

- USB
- CANopen
- Profinet, Ethernet/IP, EtherCAT

Focus Applications

- Press
- Primary metal
- Rubber and plastic
- Wood processing
- Pulp and paper
- Oil and gas
- Machine tools
- Factory automation
- Civil engineering

Three levels of performance, unmatched design flexibility

Level comparison

Level 3 Servo-performance valve with dual motion control 8ms, <0.1% *	Onboard motion control and built-in pressure and temperature sensors make commissioning faster and easier. Benefits <ul style="list-style-type: none"> Flexible control strategy using built-in sensors More diagnostic data available from sensors to provide information about machine health and performance 	Features <ul style="list-style-type: none"> Support for Ethernet/IP, EtherCAT, Profinet and CANopen Real-time parameter adjustment using Pro-FX software Embedded A, B, P & T pressure sensors on all four ports Temperature sensors on tank port IP65 & 67 rating No air bleeding Visual diagnostic LEDs
Level 2 Servo-performance valve with dual motion control 8ms, <0.1% *	Simplify PLC requirements with onboard motion control. Eliminate latency by closing the control loop on the valve to increase dynamic performance. Benefits <ul style="list-style-type: none"> Reduced machine setup time Better control performance Machine scalability Comprehensive diagnostic data available via field bus Differentiated machine performance through customization 	Features <ul style="list-style-type: none"> Support for Profinet, Ethernet/IP, EtherCAT, CANopen Real-time parameter adjustment using Pro-FX software Onboard axis controller provides position, speed, pressure and multimode control Sensor input for axis control and machine monitoring Open architecture allows for custom applications IP65 & 67 rating No air bleeding Visual diagnostic LEDs
Level 1 Servo-performance valve with motion-control 8ms, <0.1% *	AxisPro brings advanced digital control, seamless connectivity, and real-time configurability to your hydraulic system. If you've used KBSDG before — this is the smarter, faster, fully connected version you've been waiting for. Benefits <ul style="list-style-type: none"> Flexible control Less inventory to stock Reduces maintenance costs and downtime Easy control diagnostics 	Features <ul style="list-style-type: none"> Support for Ethernet/IP, EtherCAT, Profinet and CANopen Real-time parameter adjustment using Pro-FX software Plug and play setup via USB IP65 & 67 rating No air bleeding Visual diagnostic LEDs <i>Option:</i> Withstands extreme vibration up to 50g <i>Option:</i> High corrosion resistance up to 700 hours salt spray protection

* Size 3 only, 0-100% step response ms, and hysteresis %

Models

Stage	Single Stage		Two Stage			
Size	D03/NG06	D05/NG10	D05/NG10	D07/NG16	D08/NG25	D10/NG32
Level 3 Models	KBS3-03	KBS3-05	KBH3-05	KBH3-07	KBH3-08	Coming soon
Level 2 Models	KBS2-03	KBS2-05	KBH2-05	KBH2-07	KBH2-08	Coming soon
NEW! Level 1 Models	KBSD14-03 Replaces models: KBS1-03/KBSDG4V-3	KBSD14-05 Replaces models: KBS1-05/KBSDG4V-5	KBHD15-05 Replaces models: KBH1-05/KBHDG5V-5	KBHD15-07 Replaces models: KBH1-07/KBHDG5V-7	KBHD15-08 Replaces models: KBH1-08/KBHDG5V-8	KBHD15-10 Replaces model: KBHDG5V-10