The Rexroth DMX-1X
WinHost Interface Tool

The WinHost interface software is used for setup, diagnostics, and troubleshooting. Shown here is the plotting feature with the parameter screen for online tuning. The WinHost program can plot up to six signals which can be saved to disk or printed.

The DMX-1X

Bosch Rexroth Corporation – Bethlehem, PA/USA offers a digital control solution optimized for hydraulic systems. The controller accepts a variety of command and feedback signals (analog voltage, 4–20 mA, SSD, and discrete signals) and provides accurate positioning, velocity profiling, pressure limiting, and other features required in these applications.
The DMX-1X is a microprocessor-based controller featuring on-board setup and diagnostics via four pushbuttons, status and I/O LED indicators, and an alphanumeric display. In addition, a PC compatible serial port is provided for use with the powerful WinHost Configuration and Diagnostics Tool. The DMX-1X directly interfaces with up to three feedback devices to implement the required axis control. The feedback signals may be SSD (for position measurement only), 4–20 mA, or voltage (0–5, 0–10, or ±10 Vdc). These feedback signals are used to implement various functions ranging from simple positioning to positioning with differential force using two pressure transducers or a load cell. A DMX-1X controlled axis may be operated either by analog signals or 24 Vdc discrete signals. Regardless of the operating signal type, the DMX-1X can provide dynamic position or pressure/force control with “bumpless transfer” between them.

Features
- Optimizes hydraulic drive
- Versatile control interface
- Easy to setup and understand
- On-board setup and diagnostics
- WinHost software tool

Description
- High-performance position control with pressure or force control
- The loop is closed on the card
- Bumpless transfer from position to pressure/force
- Active damping for hydraulic systems with low natural frequency
- Two five-step internal command tables with table finished discrete outputs
- ±10 Vdc or 4–20 mA output to valve
- SSD digital feedback
- Voltage or current analog inputs
- “At Position” and “At Pressure” discrete outputs
- “Card OK” discrete output
- Analog input for external velocity control

A Small Sample of the Many Applications for the DMX-1X
- Mechanical handling devices
- Lift and transfer machines
- Cutting slides
- Milling machines
- Woodworking machines
- Turbine and damper controls
- Mold clamping
- Mold transfer