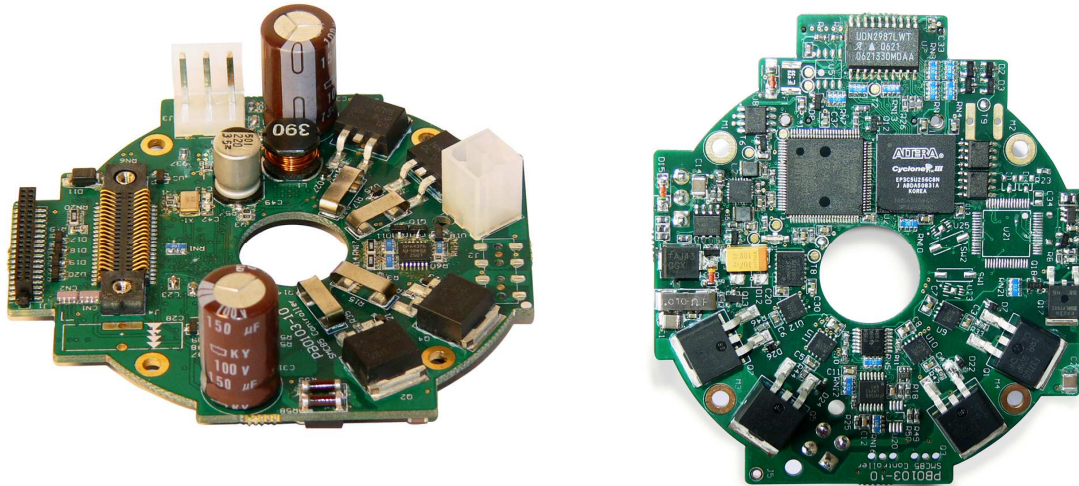# The World's most advanced Stepper Motor Controller up to 9 Amp and 80 VDC

State of the art technology with the highest microstepping resolution in the industry

JVL now launches a new stepper motor controller with RS485 and CANopen serial interface and programmable motion controller. All the necessary electronics in a stepper system are integrated in the motor itself. JVL has used the newest technology to obtain an incredibly high step resolution of 819200 step/revolution – resulting in unsurpassed smoothness and silent running.

The driver MOSFETs are so efficient that no heat sink is needed up to 6A . Supply voltage can be in the range of 12 to 80 VDC and running current up to 9A RMS and 12.6A peak. A 32 bit ARM microprocessor and powerful FPGA take care of the extremely precise velocity, acceleration and step resolution that have newer been seen before in the industry.

The controller contains everything needed to solve a modern control task as stand-alone or controlled from a PLC or PC. 8 I/O points can be individually configured to digital input, digital output or analogue input. Modbus RTU and CANopen provide easy connections to a PLC or HMI. An ActiveX/OCX driver is available to make interfacing to LabView, Excel, VB or other Windows-programs simple. The MAC motor standard protocol enables MAC motors and QuickStep motors and SMC85 controllers to be connected on the same RS485 bus with up to 254 axes.

- Extreme Resolution up to 819200 step/rev equal to 4096 microsteps per fullstep
- Velocity precision 0.01 RPM. Acceleration precision 1 RPM/sec.
- Built-in PLC with 8 I/O: each DI or DO 24V or 0-5V (12bit) analogue input with advanced input filtering
- RS485 up to 921 kbit and Modbus RTU
- Option: RS422 and RS485 for encoder I/O and connection to external HMI or PLC

- Point-to-point or multi-axis operation up to 254 axes on the same RS485 bus
- CANbus with CANopen DSP402 and DS301
- Option: Pulse/Direction mode for electronic gearing
- Prepared for High speed position capture
- Wide Supply range from 12-80 VDC delivering high torque at high speed
- Motor current 0-9 Amp RMS, 12.6 Amp Peak
- Dual supply maintain position values etc in emergency-stop situations
- ActiveX / OCX driver available as well as MacTalk protocol
- Option for box with M12 connectors and DIN rail mounting
- Option for Interface for SSI absolute encoder
- Powerful graphic programming with +-*/ calculations and advanced functions

The stepper motor controller can be delivered with wireless Bluetooth, ZigBee or WLAN. The controller is also prepared for future options like Profibus and Industrial Ethernet like EtherCAT and EtherNet/IP and absolute multi-turn encoder without external battery.

The PCB is also available mounted in an integrated stepper motor MIS 340-342 with torque from 3 to 9 Nm. PCB size is only 78x86 mm with 4 mounting holes so it can easily be mounted in an instrument or in a cabinet or directly in the rear end of a motor. Optionally it is delivered in a box with M12 connectors and DIN rail mounting.

For further information, please contact:
JVL Industri Elektronik A/S, Blokken 42, 3460 Birkerød, Denmark. Tel. +45 4582 4440. E-mail: jvlnyt@jvl.dk. Web: www.jvl.dk