



New with HVC5x from TDK Micronas:

## NTMicroDrive: ASIL A ready Software Stack with new, more powerful microcontroller



With our NTMicroDrive and the new HVC5x microcontroller from TDK Micronas you can optimize direct control for BLDC motors (up to 25 watts):

- Double flash memory
- Double motor current
- More compact housing
- Better availability
- Optimized motor control

NTMicroDrive is a close-to-production and highly flexible, customizable firmware with sophisticated communication, monitoring and power management functions. The software stack with minimal resource consumption enables complex motor control algorithms for Brushless DC Motors (BLDC), Six-Step Commutation with or without sensor feedback. The motor controller supports the control of speed and position.

### Customer Benefits

- Compliant with ISO 26262 ASIL A
- Ready-to-use software enables shorter time-to-market
- Compatible with various motor types
- Ample memory for customized adaptations
- MISRA compliant

### Typical applications

#### Automotive

- Headlight height adjustment
- Electric windows
- Electric seat adjustment
- Electric mirror adjustment
- Control of air conditioning and valves (e.g. in the cooling circuit of traction batteries)

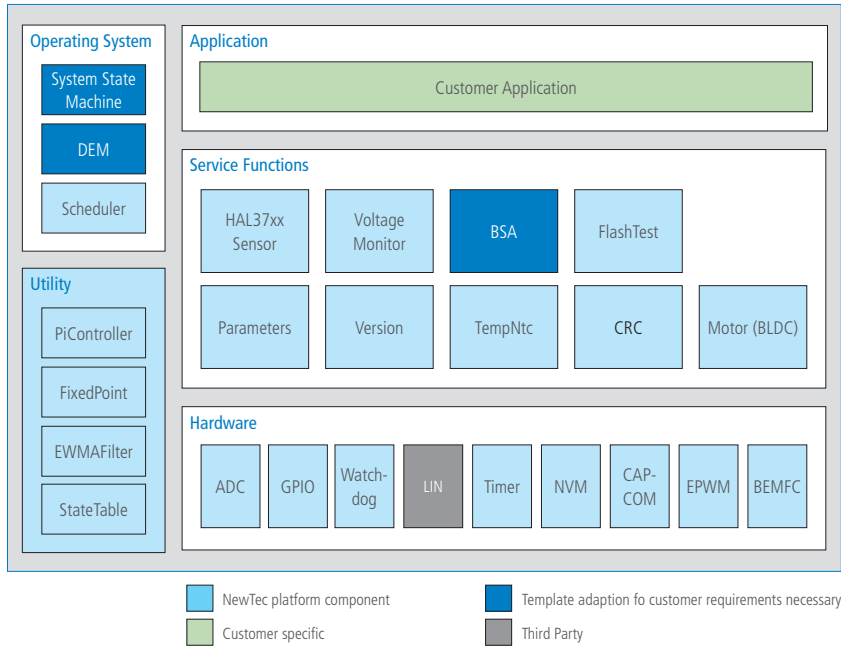
#### Industry

- Safety interlock
- Material transport
- Tool handling
- Robotics

#### Construction

- Safety interlock
- Holding bracket
- Automatic alignment device
- Simple power tools

## NTMicroDrive System Overview



## BLDC Motors Supported Features

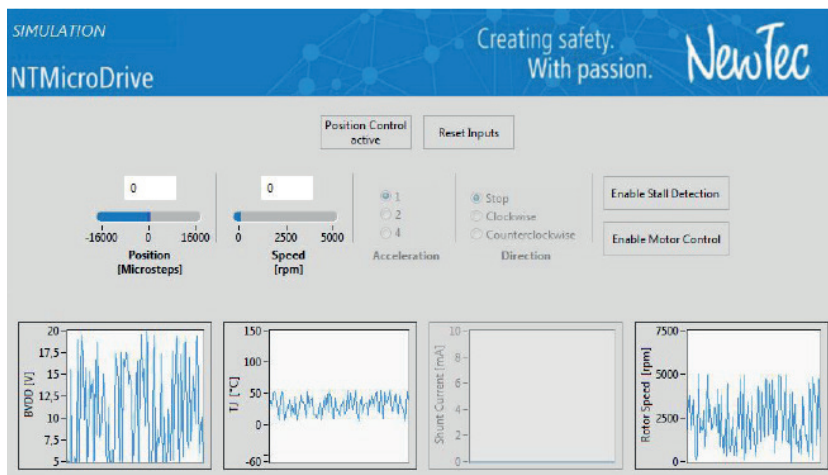
- Speed Control
- Current Control
- Direction
- Current limitation
- Sleep & Retention mode
- LIN communication

### Diagnostics

- MOUT overcurrent shutdown
- BVDD Over-/Under-voltage
- Tj over-temperature (GUI adjustable limit)
- Window and Digital Watchdogs
- Motor phase open
- Motor phase short to GND
- Motor phase short to VBAT

## Related Development Tools

## Graphic User Interface



## NTMicroDrive Enterprise-Board

The development board is production ready and provides a complete, high-quality design environment for motor applications based on the TDK Micronas HVC5422D Motor Controller.

