

ADDvantage-32 Plus™ DC Drives



Automation Systems

We engineer solutions that deliver uptime

- High reliability drives and encoders
- Industry proven engineering services
- Start-up and commissioning services
- Multi-level diagnostics
- Professional training
- 24/7/365 support
- Specialty service contracts



Nidec Industrial Solutions

Nidec Industrial Solutions is a business platform of Nidec Group. Nidec is a global manufacturer of electric motors and drives, founded in 1973.

In 2012 Nidec acquired Ansaldo Sistemi Industriali Spa establishing Nidec ASI, a specialist in providing innovative power control and system solutions for hundreds of customers worldwide. Later that year they also acquired Avtron Industrial Automation in North America who built its reputation in reliable drive systems and encoders. Then in 2016 Nidec acquired Control Techniques and Leroy Somer, manufacturers of drives and motors.

In 2016 Nidec combined the Nidec ASI, Nidec Avtron, and elements of Control Techniques and Leroy Somer to form Nidec Industrial Solutions, confirming its commitment to innovation in Industrial Power and Automation.

Now as the global industrial platform leader, the company is helping to shape the future of the industrial sector. Our solutions are used in a wide range of commercial and industrial applications worldwide. The team is also a leading edge provider of solutions for renewable energy applications.

ADDvantage-32 Plus™

The ADDvantage-32 Plus Family of DC drives

A common controller coupled with application rated SCR bridges to provide customers with a rugged, reliable and cost effective DC drive solution.



The ADDvantage-32 Plus DC Drive is the newest revision to the industry's longest continuously available drive.

Released in 1990 and still available, the ADDvantage-32 DC drive is the world's most reliable DC drive. Our DC drives cover a wide range of horsepower with many control options available to support your specific application.

The ADDvantage-32 platform is flexible enough for single section applications and is feature-packed for multiple motor system use.

DC Drive Solutions

- 5 – 10,000 HP
- 240 V – 1500 V
- Integrated motor field supplies up to 48 amps
- 10, 30, motor field supplies up to 500 amps
- 6 and 12 pulse firing control with up to 48 parallel bridges
- Designs to meet all IEEE/IEC overload duty classes

Advanced Firing Module (AFM)

- Digital Front End drive upgrades
- 6 or 12 pulse LV and HV firing circuits
- Compatible with single/parallel/series bridge topologies
- Available with integrated motor field supply

Digital MG Set Controller (DMG)

- Stand-alone three-phase generator field regulator
- 10 – 500 amps
- 50 – 300 VDC nominal output with up to 6:1 forcing
- Available with integrated motor field supply

Features of the ADDvantage-32 Plus

- USB port for memory stick parameter copy/paste/backup/restore
- ARC-Flash compliance with new remote mountable 4 line keypad display
- Expanded built-in 8 channel digital chart recorder with increased storage
- Fully time-stamped data in event FIFO
- Enhanced PLL performance provides reliable operation even when not running on grid power



Available I/O

- Six 24 VDC digital inputs
- Four Form-C contact digital outputs
- Six 0 to +/-10 VDC analog inputs
- Four 0 to +/-10 VDC analog outputs
- Two quadrature pulse generator (encoder) inputs
- One buffered encoder output
- RS-485 serial interface
- Multi-protocol Ethernet interface
- Expanded digital I/O

Longevity

ADDvantage-32 drives delivered in the 1990s can be upgraded to the new control board

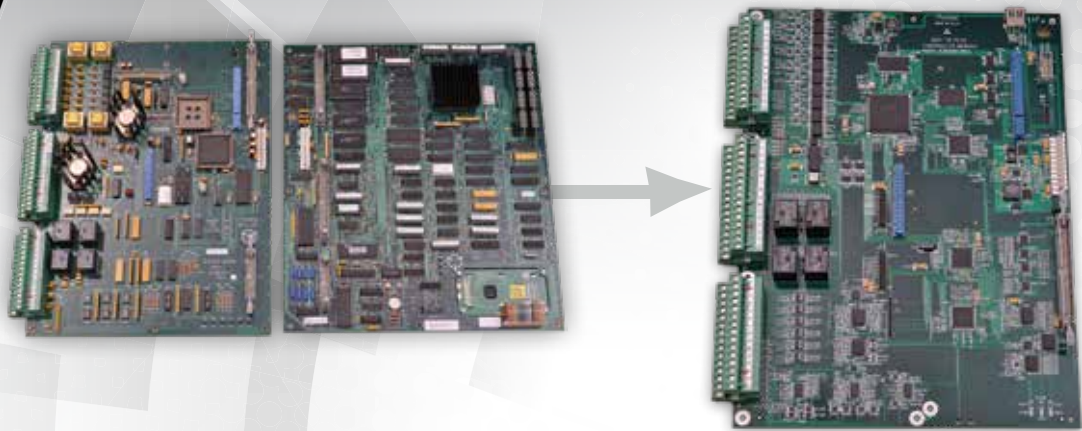
Our ADDvantage-32 Plus drive solutions are engineered to keep your system at the top of the food chain long after other systems have become extinct.



Engineered for reliability

In the new ADDvantage-32 Plus, the processor and system I/O functions have been merged into a single PCB.

Reduced components and connections increase reliability.



Simple installation minimizes downtime

- Mechanically interchangeable with original control module
- No modification required to existing sheet metal
- Supports existing add-on special function modules, Fax I/O, network communications
- No changes required to existing wiring
- Supports all ADD-32 hardware configurations
- Supports all existing application software

Original ADD-32 fixed keypad



The new removable keypad display has a remote range of up to 10 feet.

Longevity

ADDvantage-32 drives delivered in the 1990s can be upgraded to the ethernet module

- 2.5x faster communications than ESBX
- NEW Profinet support
- Compatible with all ADDvantage-32 Plus controllers
- Replaces ESBX in minutes



Specifically designed for the ADDvantage-32 Plus

The new Enhanced Ethernet Module, the EESBX, replaces the ESBX and is fully backward compatible with ADDvantage-32 Plus drives. The EESBX is a drop-in replacement for drives communicating with the EGD protocol. For drives communicating using Ethernet IP, only two PLC parameters need modified for the EESBX to drop-in.

MODULE FUNCTIONS/FEATURES

- Direct replacement of ESBX Module
- 100% compatible with ADDvantage-32 Plus software versions
- Works seamlessly with ADDapt, ADDzap, ADDzap Plus, ESBXzap and EGDconfig

SUPPORTED PROTOCOLS

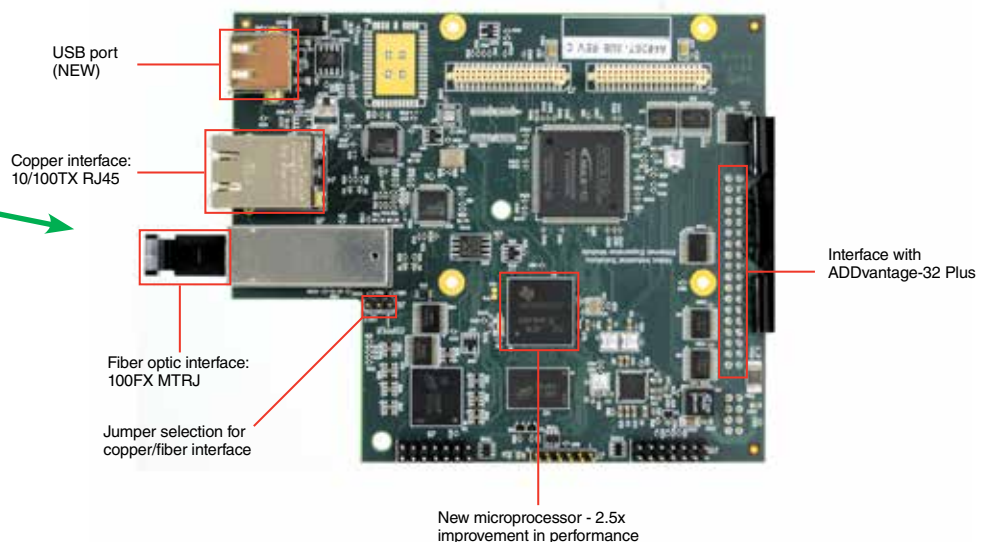
- Peer primitive, Modbus TCP, EGD
- Ethernet/IP: Explicit messaging, Implicit messaging
- Profinet

SUPPORTED MEDIA

- Optical fiber, Copper wire

USB PORT (New Feature)

- Save/load of EGD configuration, EESBX firmware upgrades

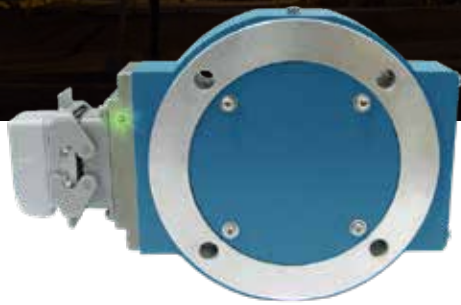


EESBX Part Number: A40267, Replaces ESBX Part Number: A26494

Mill Duty Magnetic Encoders

Nidec Avtron Encoders

The most reliable encoders in the world.



AV850 Features

- High power outputs with short circuit protection
- Wide gap technology
- Replaceable sensors to maximize uptime
- Diagnostic LED & alarm contact
- No bearings or couplings
- Fits shafts up to 4 1/2" [115mm], metric or US
- Fits 8 1/2" C-Face

AV685 Features

- High power outputs with short circuit protection
- Diagnostic LED & alarm contact
- Replaceable sensors to maximize uptime
- Fits shafts with diameter of 1 1/8"
- Auto-centering spline shaft system for perfect fit every time

HS45 Features

- Field resizeable by changing inserts
- Diagnostic LED & alarm contact
- Heavy duty bearings for rugged applications
- Fits shafts from 5/8" to 1 1/8" [16mm to 30mm]
- Clamp and center-bolt mounting styles



Customer Proximity remains one of our strongest commitments.

Our capabilities extend to personalized assistance to meet our customers' needs. Our staff of highly qualified supervisors, as well as our Service Engineering team, are available to oversee complex interventions. Nidec offers a wide range of personalized contracts for preventive and predictive maintenance which are tailored around your needs and production schedule.

Nidec has over 200 subsidiaries and affiliates across the globe, providing manufacturing, sales and service support to Nidec's extensive customer base.

- **Personalized assistance**
- **Long term maintenance agreement**
- **Global support**

