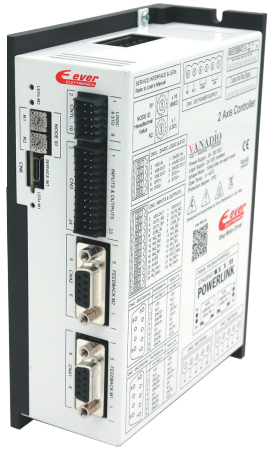
AC Brushless Servodrives for 2 motors with Multiprotocol fieldbus

VANADIO
AC - SERVO - DRIVES

2 axes

MULTIPROTOCOL



c UL us

WARRANTY 3 YEARS

STO Safe Torque Off SIL3 PLe

AW5D3560

- Industrial Ethernet Interface Multiprotocol fieldbus
- Outputs to drive two independent motors
- Incremental or absolute encoder or Hall sensor or Resolver inputs
- Service USB for real time programming and debugging
- New e3PLC Programming Environment, easy and intuitive

Characteristics

Specifications

MODELS

Code	Power supply	Current for each motor	Motor power
AW5D3560	24 ÷ 80 Vdc 24 Vdc for logic isolated and mandatory	up to 7.0 Arms (10Arms peak)	up to 560 W for each motor

POWER STAGE
Ultrasonic chopper frequency 40 kHz

COMMUNICATION INTERFACE
Industrial Ethernet Interface Multiprotocol

FEEDBACK (isolated)
1 incremental encoder input 5 V differential RS422 or 5V single-ended TTL/CMOS or 5V absolute encoder input Endat2.2 or SSI or BiSS-C

POSITION SENSOR (isolated)
1 Hall sensor 5V Single-Ended (TTL/CMOS) or resolver sensor interface

USB INTERFACE
Service USB interface for configuration, programming and real time debugging

INPUTS (optocoupled)
8 digital

OUTPUTS (optocoupled)
4 digital

ANALOGUES INPUTS (isolated)
2 analog

ANALOGUES OUTPUTS (isolated)
2 analog

SAFE TORQUE OFF INPUTS (optocoupled)
2 STO inputs

SAFETY PROTECTIONS
over/under-voltage, over current, overheating, short circuit between motor phase to phase and phase to ground

TEMPERATURES
working from 5°C to 40°C, storage from -25°C to 55°C

HUMIDITY
5% ÷ 85% not condensing

PROTECTION DEGREE
IP20

MULTIPROTOCOL

The drive can be configured to communicate with a wide range of major fieldbuses on the market without any hardware alteration but with a simple software setup.
Fieldbuses already available for interfacing on a Multiprotocol device include:

PROFINET EtherCAT EtherNet/IP

Downloading the ad hoc firmware, it's possible to change the communication protocol according to the need of your application. Multiprotocol drives ensure fast and flexible operation and user-friendly configuration provided on the software, without the need for additional servers or special hardware.

ever ELETTRONICA
the clever drive

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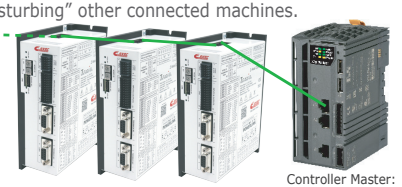
Multi Axes Systems

Slave Mode - d0A80 PowerLink (DS402)

POWERLINK is a standard Ethernet-based communication protocol that guarantees reliable and deterministic communications: it is therefore well suited to meet the needs of industrial automation and process control. POWERLINK utilizes the same object dictionaries and communication mechanisms as CANopen, including process data objects (PDOs), service data objects (SDOs), and network management (NMT). For this reason, POWERLINK can be referred to as a "CANopen over Ethernet."

Main features of the POWERLINK fieldbus:
- real-time data
- freedom to choose the network topology best suited to the application (star, tree, ring, or combinations of all these network architectures)
- Cyclic and isochronous data exchange: the Managing Node, during the clock cycle, sends requests to all nodes according to a predeermined sequence (equidistant time cadence) while waiting for the response from each node
- deterministic, as the network and device update time is constant
- dynamic mapping of PDOs.
- hot plug: disconnection of one (or more) nodes does not affect network functionality; if one node is disconnected, the others continue to operate. This means, for example, that it is possible to disconnect part of the robotic line for maintenance and reconnect it without "disturbing" other connected machines.

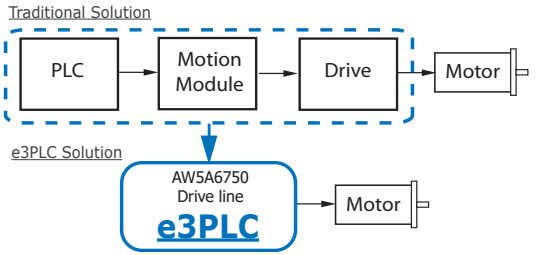


Drives control through command by master controller.

Stand Alone Mode

User Programmable - eePLC- a0690 / a0790 / a0890 / a0990

FIELDBUS DRIVES WITH AUTONOMOUS FUNCTIONING that, by integrating advanced PLC and motion controller functions in one single device, programmable by the user with the IDE for Windows PC and e3PLC, allows to reduce the traditional machine control solution.



The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion Module, an integrated Real-time Process Module, applications can be easily created for special applications such as:
- *Labelling*
- *Electronic cams*
- *Control Sequences of cable processing*
- *Many other user-customized processes ...*

Control Modes

Available Models

Configuration and programming

Ever co. proprietary PC Software Tools for easy and quick development, configuration and supervision of each system.

Fieldbus configuration (slave) or
IDE e3PLC configuration (programmable)

Autonomous management of the firmware for the execution of the ***homing***, of the target movement with relative or absolute quota and for the generation of the ramp profiles

Torque mode for operation with torque limitation

Speed control thanks to digital inputs, analogue inputs or fieldbus

Electronic CAM with advanced programming of internal profiles inside the drive

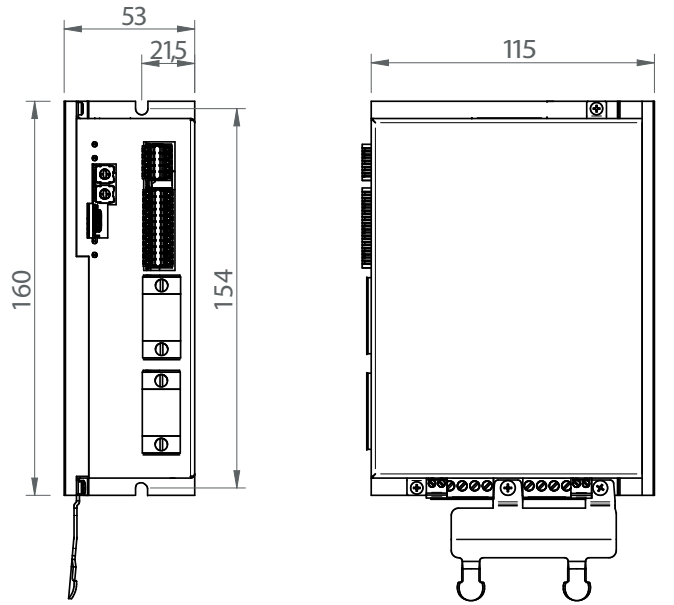
Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

Fast inputs and outputs for motor' start & stop and event synchronization for high speed response applications such as labeling, nick finder, flying saw etc.

Possibility to synchronize the movements in multi-axis systems, even without fieldbus

Enabling and on-the-fly changing of the motion control modes

Mechanical Data



Models	Dimensions (mm) H	D	W	Weight (g.)
AW5D3560R4T2-x0	160.0	53.0	115.0	470 approx

Ordering Information for AW5D3560

Ordering code		Power			System Resources								
Versions	Config.	Power supply	Power supply separated for Logic	Current	Digital inputs	Digital outputs	Analogues inputs	Analogues output	STO Inputs	Interface	Feedback interface	USB Service interface	Control mode
AW5D3060 Drives Line													
AW5D3560R4T2-30	d0A80	24 ÷ 80 Vdc	24 Vdc (mandatory and isolated)	0.0 ÷ 7.1 Arms (10.0 Apeak)	8	4	2	2	2	PowerLink	Incremental encoder	Service USB for configuration or programming and real time debug	Slave through PowerLink (DS402)
	d0A90												Programmable with e3PLC PowerLink
AW5D3560R4T2-35	d0A80										Multiturn Absolute Encoder		Slave through PowerLink (DS402)
	d0A90												Programmable with e3PLC PowerLink
AW5D3560R4T2-34	d0A80										Resolver or Hall sensor		Slave through PowerLink (DS402)
	d0A90												Programmable with e3PLC PowerLink

Configuration and Programming Kits	
Kit code	**Description**
USBC_SERV0EE-1M	USB configuration and programming communication kit with USB cable and USB key with Ever Studio and e3PLC in demo version.

Mechanical Specifications