

## Specifications

### MODELS

Code	Interface
SB4A3042C261-00	CANbus - CANopen
SB4A3042M261-00	Serial - Modbus

### CURRENT

0 ÷ 4.2 Arms (0 ÷ 6.0 Apeak)

### CONTROL INTERFACES

Serial RS485 Modbus RTU or CANbus

### ENCODER INTERFACE

incremental encoder not isolated input 5V Differential (RS422) or 5V Single-Ended (TTL/CMOS)

### SCI INTERFACE

service SCI interface for programming and real time debug

### OPTOISOLATED INPUTS

4 digital inputs

### OPTOISOLATED OUTPUTS

2 digital outputs

### ANALOG INPUTS

2 analog inputs

### EMULATED STEP RESOLUTION

Stepless Control Technology (65536 positions per turn)

### SAFETY PROTECTIONS

Over/UnderVoltage, OverCurrent, OverTemperature, Phase/Phase and Phase/Ground Short

### TEMPERATURE

operating from 5°C to 40°C, storage -25°C to 55°C

### HUMIDITY

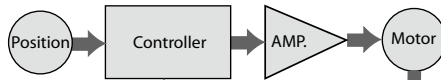
5% ÷ 85%

### PROTECTION CLASS

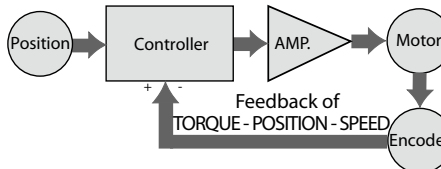
IP00 (open frame)

## Open-loop / Closed-Loop

### Open Loop Control



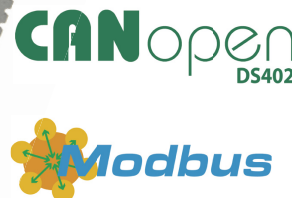
### Closed Loop Control



Better control compared to both an open loop stepper solution and a servo-controlled brushless solution

## Full Digital Programmable Drive with fieldbus for Advanced Motion Control with reduced costs

**TITANIO**  
VECTOR - STEPPER - DRIVES



# SB4A Open frame

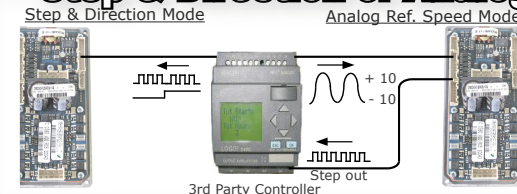
- Vectorial control
- Several fieldbus
- Serial Service for real time programming and debugging
- New e3PLC Programming Environment, easy and intuitive
- Closed loop also with absolute multiturn encoder



### EVER Motion Solutions srl

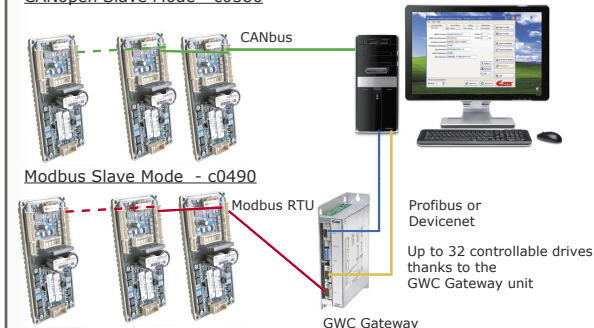
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## Step & Direction or Analog



## Multi Axes Systems

### CANopen Slave Mode - c0380



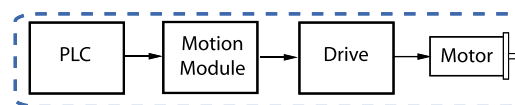
Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in Powerful Motion Module functionality assures Perfect Synchronization among axes and reduces Master Controller workload.

## Stand-Alone Mode

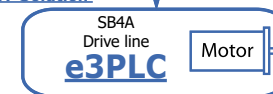
### User Programmable - e3PLC- c0490

**FIELD BUS 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.

### Traditional Solution



### e3PLC - SB4A Solution



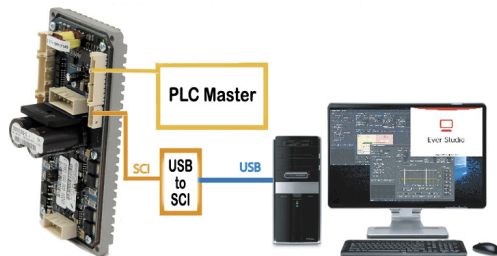
The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion 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 ...

## Configuration and Programming

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

### Fieldbus configuration (slave)



### 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

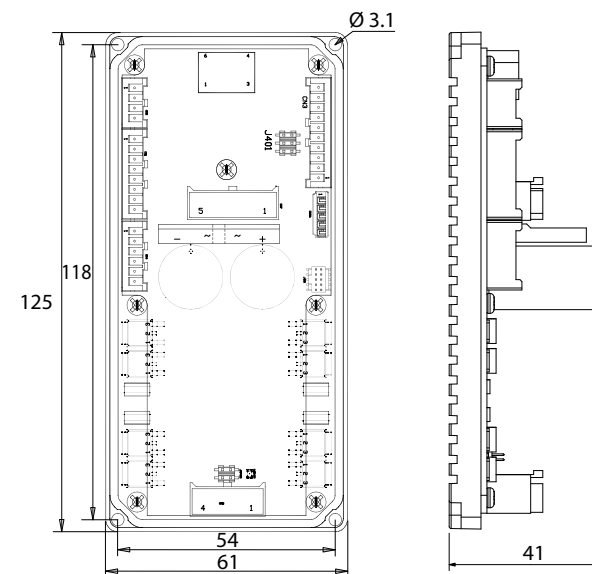
**Electric shaft** with encoder or analogue input with variable tracking ratio (Electric Gear)

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



## Ordering Information of SB4A open frame drives and options

Order code		Power			System Resources						
Versions	Config. (see table)	Power supply Power	Logic	Current	CAN	Serial	SCI	Digital Inputs	Digital Outputs	Analog Inputs	Encoder interface
SB4A3042C261-00	c0380 c0390	18 ÷ 56 Vac	24 Vdc (Optional)	0 ÷ 4,2 ARMS (0 ÷ 6,0 APEAK)	CANbus (Canopen)	---	for programming and real time debug	4	2	2	1 5V TTL/CMOS
SB4A3042M261-00	c0490	18 ÷ 56 Vac	24 Vdc (Optional)		---	RS485 (Modbus)					

### Configuration, Control Method and Optional Software Starter Kits

Config.	Control	Software Starter Kits Code
c0380	Canopen Control Mode (CiA DS402 profile)	SB4A_SERV00-SL
c0390	Stand-Alone e3PLC Studio IDE Canopen Mode	SB4A_SERV00-EE
c0490	Modbus Control Mode and Stand Alone e3PLC Studio IDE Modbus Mode	SB4A_SERV00-EE