Specifications

MODELS

Code	Power supply		Current
	Power	**Logic**	
SW5A4085	18 ÷ 100 Vca single phase or 3 phases	18 ÷ 100 Vac (mandatory)	8.50 Arms (12.00 Apeak)

EMULATED STEP RESOLUTION
Stepless Control Technology (65536 position per turn)

COMMUNICATION INTERFACES
EtherCAT, Modbus TCP/IP, CANopen e Modbus

ENCODER INTERFACES
incremental encoder input 5V differential RS422 or single-ended TTL/CMOS (not isolated)

SCI INTERFACE
SCI service interface for programming and real time debug

OPTOCOUPLED INPUTS
up to 16 digital inputs

OPTOCOUPLED OUTPUT
up to 12 digital outputs

ANALOG INPUTS
up to 2 analog inputs

ANALOG OUTPUT
up to 2 analog outputs

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

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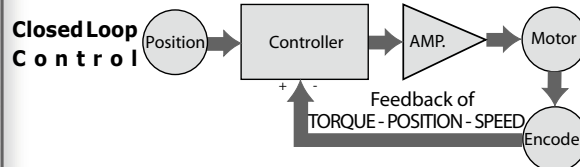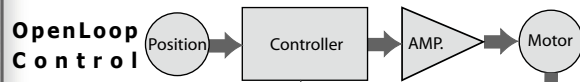working from 5°C to 40°C, storage from -25°C to 55°C

HUMIDITY
5% ÷ 85% not condensing

PROTECTION CLASS
IP20

Features

Open loop / Closed Loop

OpenLoop Control

Closed Loop Control

Feedback of
TORQUE - POSITION - SPEED

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

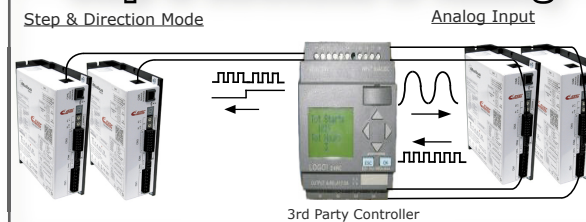## Programmable vectorial drivers for 2 phases stepper motors

SW5A4085
Titanio drivers

- Vectorial control
- Several fieldbus
- Serial service for real time programming and debugging
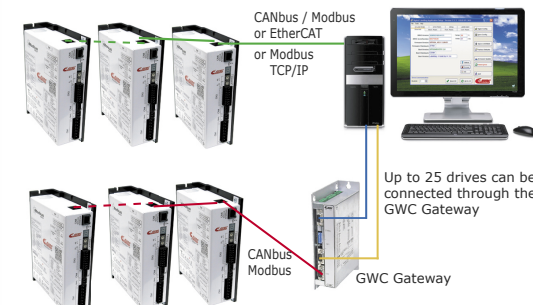- New e3PLC Programming Environment, easy and intuitive

EVER Motion Solutions srl
Via del Commercio, 2/4 -9/11
Loc. S. Grato - Z.I.
26900 - LODI (LO) - Italy
Tel. 0039 0371 412318 - Fax 0039 0371 412367
email infoever@everelettronica.it
www.everelettronica.it

Control Modes

Step & Direction or Analog

Step & Direction Mode — Analog Input

3rd Party Controller

Multi Axes Systems

Slave Mode - c0380 CANopen DS402
- c0490 Modbus RTU
- c0680 EtherCAT CoE
- c0890 Modbus TCP/IP

Controller Master: PC, PLC, Panel PC o altro

CANbus / Modbus or EtherCAT or Modbus TCP/IP

Up to 25 drives can be connected through the GWC Gateway
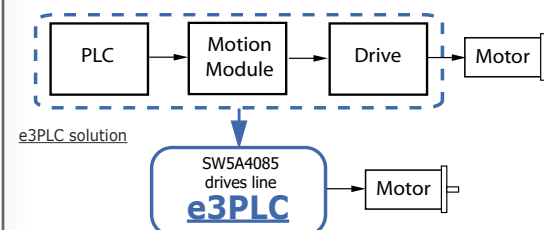
CANbus Modbus

GWC Gateway

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

Stand Alone Mode

User Programmabile - e3PLC- c0390 / c0490 / c0690 / c0890

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.

e3PLC solution

SW5A4085 drives line **e3PLC**

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:
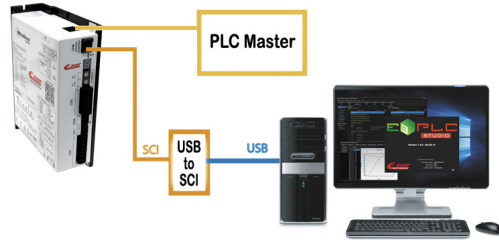- *Labelling*
- *Electronic cams*
- *Control Sequences of cable processing*
- *Many other user-customized processes ...*

Configuration software

Fieldbus configuration (slave)

IDE e3PLC configuration (programmable)

Ever co. proprietary PC Software Tools for easy and quick configuration or programming, real time debug and supervision of each system

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

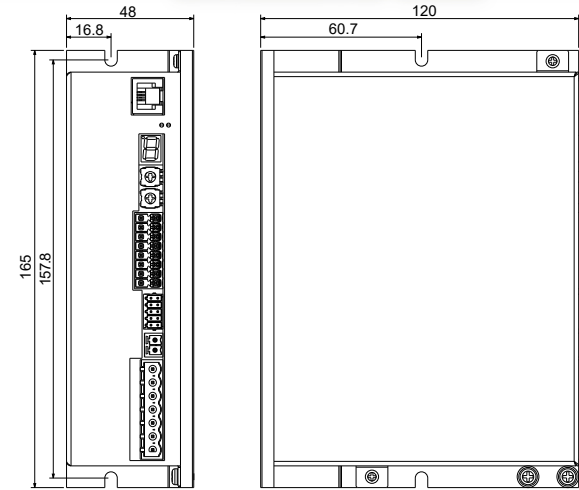**Electronic CAM** with advanced programming of internal profiles inside the drive

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)			Weight (g.)
	H	L	W	
SW5A4085xxxx-x0	165.0	120.0	48.0	390

Ordering Information for SW5A4085 Drives

Ordering code		Power			System Resources						
Versions	Config.	Power Supply	Logic Power Supply	Current	Digital Inputs	Digital Outputs	Analog Inputs	Analog Outputs	Interface	SCI Interface	Control Mode
SW5A4085 Drives Line											
SW5A4085C2N1-00	c0380	18 ÷ 100 Vac	18 ÷ 100 Vac (optional)	0.0 ÷ 8.5 Arms (12 Apeak)	6	4	2	0	CANbus Canopen	For programming and real time debug	Fieldbus CANbus DS402
	c0390										e3PLC CANbus
SW5A4085C2G1-00	c0380				16	12	2	2			Fieldbus CANbus DS402
	c0390										e3PLC CANbus
SW5A4085M2N1-00	c0490				6	4	2	0	Modbus		e3PLC Modbus RTU
SW5A4085M2G1-00	c0490				16	12	2	2			e3PLC Modbus RTU
SW5A4085E241-00	c0890				4	2	0	0	Ethernet Modbus TCP/IP		e3PLC Modbus TCP/IP
SW5A4085E2J1-00	c0890				12	10	0	0			e3PLC Modbus TCP/IP
SW5A4085H241-00	c0680				4	2	0	0	EtherCAT CoE		Fieldbus EtherCAT CoE
	c0690										e3PLC EtherCAT CoE

Configuration and Programming Kits

Kit code	Description
SW5_SERV00-SL	SCI configuration communication kit with cables, service serial to RS485 and RS485 to USB converters and CD-Rom.
SW5_SERV00-EE	SCI service e3PLC programming with cables, service serial to RS485 and RS485 to USB converters and CD-Rom.