

## 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

4 or 16 digital inputs

### OPTOCOUPLED OUTPUT

3 or 12 digital outputs

### ANALOG INPUTS

up to 2 analog inputs depend on model

### ANALOG OUTPUT

up to 2 analog output depend on model

### 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

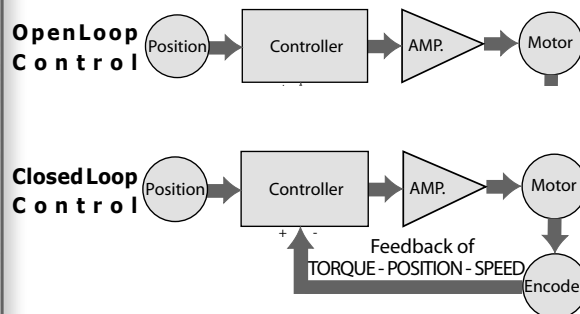
### HUMIDITY

5% ÷ 85% not condensing

### PROTECTION CLASS

IP20

## Open-loop / Closed-Loop



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

## Programmable vectorial drivers for 2 phases stepper motors

**TITANIO**  
VECTOR - STEPPER - DRIVES



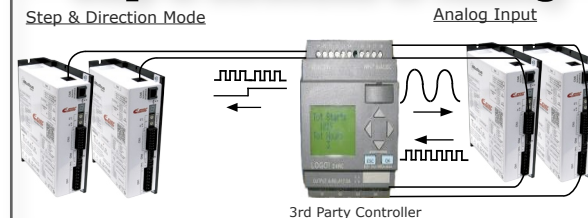
# SW5A4085 Titanio drivers

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

**Ever**  
**ELETRONICA**  
the clever drive

ELETRONICA PER AUTOMAZIONE INDUSTRIALE  
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Tel. +39 0371 412318 - Fax +39 0371 412367  
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## Step & Direction or Analog



## Multi Axes Systems

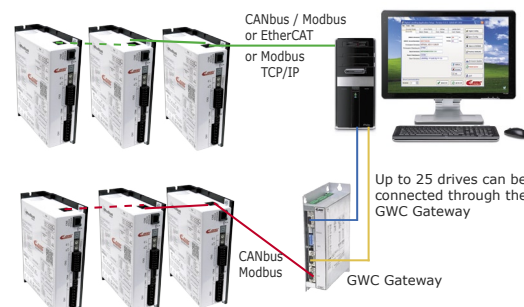
Slave Mode - c0380 CANopen DS402

- c0490 Modbus RTU

- c0680 EtherCAT CoE

- c0800 Modbus TCP/IP

Controller Master:  
PC, PLC, Panel PC o altro

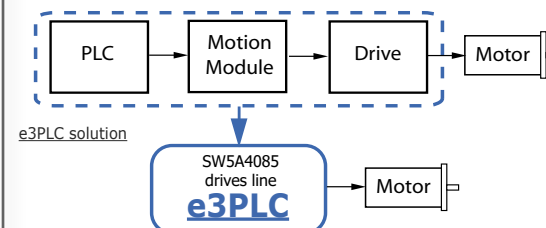


Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

## Stand Alone Mode

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

**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.



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:

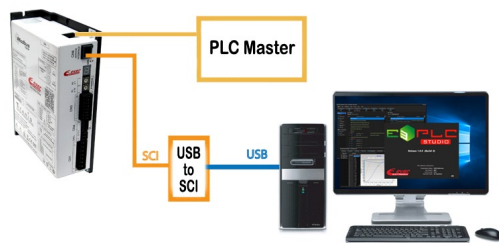
- Labelling
- Electronic cams
- Control Sequences of cable processing
- Many other user-customized processes ...

## 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

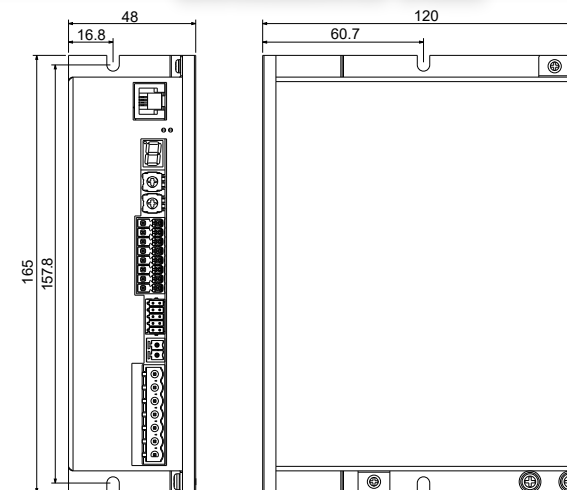
**Electric shaft** with encoder or analogue input with variable tracking ratio (Electric Gear)

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			Modbus	Fieldbus CANbus DS402
	c0390											e3PLC CANbus
SW5A4085M2N1-00	c0490				6	4	2	0	Ethernet Modbus TCP/IP		Fieldbus Modbus DP + e3PLC	
SW5A4085M2G1-00					16	12	2	2				
SW5A4085E241-00	c0800				4	2	0	0	Ethernet Modbus TCP/IP		Fieldbus Modbus TCP/IP	
	c0890										e3PLC Modbus TCP/IP	
SW5A4085E2J1-00	c0800				12	10	0	0			EtherCAT CoE	Fieldbus Modbus TCP/IP
	c0890											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.