

## Specifications

### MODELS

Code	Power supply		Current
	Power	Logic	
SW5A9052	85 ÷ 265 Vac single phase or 3 phases	24 Vdc (mandatory)	5.20 Arms (7.3 Apk) (up to 8Arms @120Vac max)

### EMULATED STEP RESOLUTION

Stepless Control Technology (65536 position per turn)

### COMMUNICATION INTERFACES

EtherCAT, Modbus TCP/IP, CANopen, Modbus RTU and Profinet

### ENCODER INTERFACES

incremental encoder input 5V differential RS422 or single-ended TTL/CMOS (isolated)  
encoder output 5V differential RS422 (isolated)  
absolute encoder input SSI or BISS-C (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

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up to 2 analog outputs

### OPTOCOUPLED STO INPUTS

Safe Torque Off 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

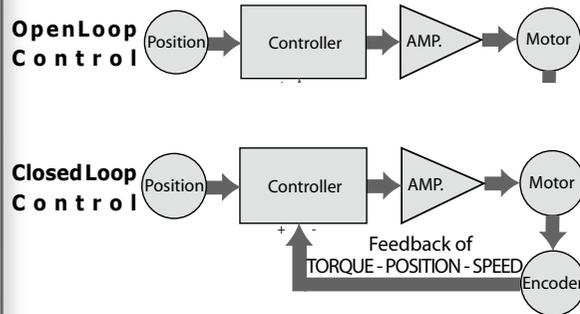
### HUMIDITY

5% ÷ 85% not condensing

### PROTECTION 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

**CE** **UL** **US**

**STO**  
Safe Torque Off  
**SIL3**  
**PLe**

**WARRANTY**  
**3**  
**YEARS**



**EtherCAT**  
**Modbus TCP/IP**  
**CANopen**  
**Modbus**  
**PROFINET**

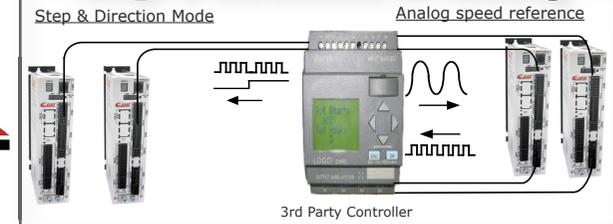
# SW5A9052

- Can be powered from the main AC supply (230 Vac)
- Vectorial control
- Safe Torque Off inputs (STO) SIL3/PLe
- Several fieldbus
- Serial Service for real time programming and debugging
- New e3PLC Programming Environment, easy and intuitive

**ever**  
e-MOTION SOLUTIONS

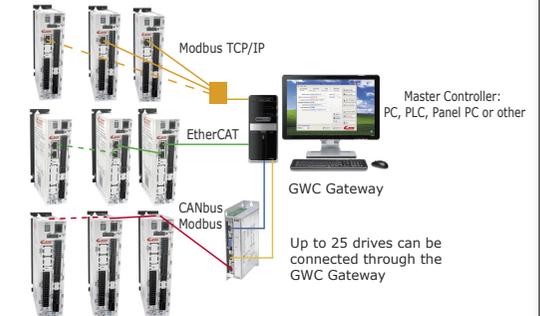
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Tel. 0039 0371 412318 - Fax 0039 0371 412367  
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## Step & Direction or Analog



## Multi-Axes Systems

Slave mode - c0380 CANopen DS402  
- c0680 EtherCAT  
- c0790 CANopen + Modbus  
- c0890 Modbus TCP/IP  
- c0990 Profinet

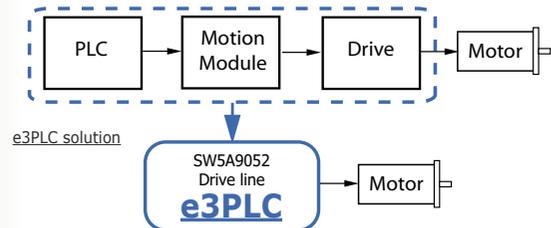


Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

## Stand Alone Mode

User Programmable - e3PLC- c0690 / c0790 / c0890 / c0990

**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.

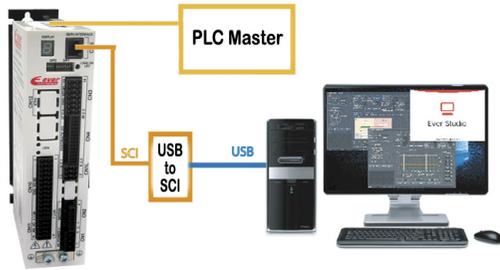


The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion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

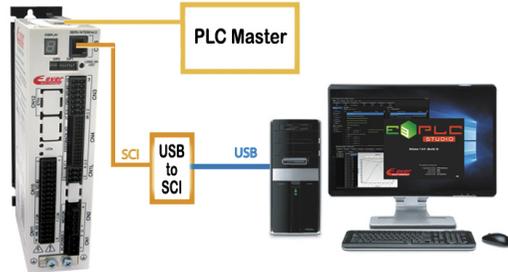
- Labelling
- Electronic cams
- Control Sequences of cable processing
- Many other user-customized processes ...

## 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

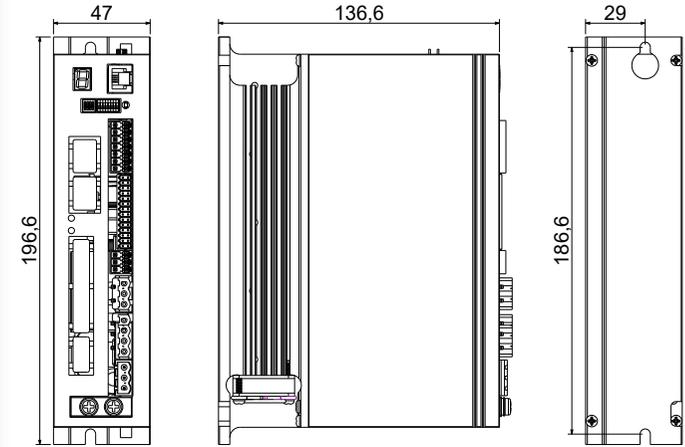
**Electric shaft** with encoder or analogue input with variable tracking ratio (Electric Gear)

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	
SW5A9052xxxx-30	196.6	136.6	47.0	550

## Ordering Information for SW5A9052 Drives

Ordering code		Power			System Resources										
Versions	Config.	Power Supply	Logic Power Supply	Current	Digital Inputs	Digital Outputs	Analog Inputs	Analog Outputs	STO Inputs	Interface	SCI Interface	Control Mode			
<b>SW5A9052 Drives Line</b>															
SW5A9052N221-30	c0790-S0200 c0790-S0301	85 ÷ 265 Vac	24 Vdc (mandatory)	0 ÷ 5.2 Arms (0÷7.3 Apeak) (up to 8 Arms @120Vac max)	4	3	0	0	YES	---	For configuration, programming and real time debug	Clock & Direction			
SW5A9052N2E1-30	c0790-S0302				4	3	1	0	YES	---		Indexer			
SW5A9052L221-30	c0380				4	3	0	0	YES	CANbus Canopen + Serial Modbus		e3PLC CANopen + Modbus			
	c0790				e3PLC CANbus + Modbus										
SW5A9052L2E1-30	c0380				4	3	1	0					Fieldbus CANbus DS402		
	c0790				e3PLC CANbus + Modbus										
SW5A9052L2G1-30	c0380				16	12	2	2					Fieldbus CANbus DS402		
	c0790				e3PLC CANbus + Modbus										
SW5A9052E221-30	c0890				4	3	0	0					YES	Ethernet Modbus TCP/IP	e3PLC Modbus TCP/IP
SW5A9052E2G1-30	c0890				16	12	2	2					YES	EtherCAT (CoE)	e3PLC Modbus TCP/IP
SW5A9052H221-30	c0680				4	3	0	0					YES	Fieldbus EtherCAT	
	c0690				e3PLC EtherCAT										
SW5A9052T221-30	c0990	4	3	0	0	YES	Profinet	e3PLC Profinet							

### 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.