

## Specifications

### MODELS

Code	Power supply		Max. Out Current
	Power	Logic	
SW4D2070	12 ÷ 48 Vdc	12 ÷ 48 Vdc	7.1 Arms (10 Apeak)
SW4A3070	18 ÷ 56 Vac	24 ÷ 80 Vdc	7.1 Arms (10 Apeak)

### COMMUNICATION INTERFACE

Modbus or CANbus

### ENCODER INTERFACE

- incremental encoder not isolated input 5V Differential (RS422) or 5V Single-Ended (TTL/CMOS) or absolute encoder input 5V BISS-C or SSI (SW4D2070 only)  
 - encoder output not isolated 5V Differential (RS422) (SW4D2070 only)

### SCI INTERFACE

service SCI interface for programming and real time debug

### OPTOISOLATED INPUTS

4 digital inputs

### OPTOISOLATED OUTPUTS

2 digital outputs (SW4A3070) or 3 digital outputs (SW4D2070)

### 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

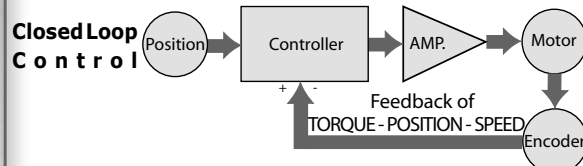
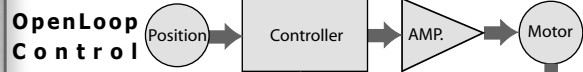
### HUMIDITY

5% ÷ 85%

### PROTECTION CLASS

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



# SW4

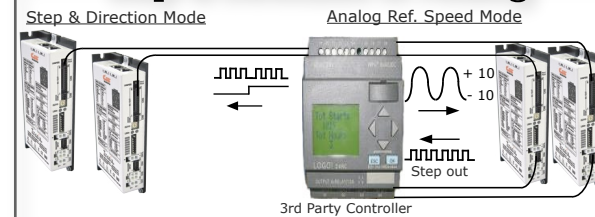
## Titanio drivers

- 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



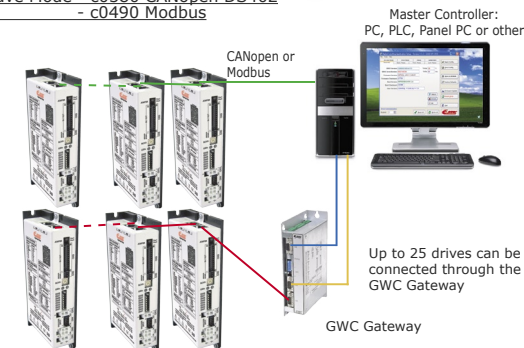
**ELETRONICA PER AUTOMAZIONE INDUSTRIALE**  
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 Loc. S. Grato - Z.I.  
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## Step & Direction or Analog



## Multi Axes Systems

Slave Mode - c0380 CANopen DS402  
 - c0490 Modbus



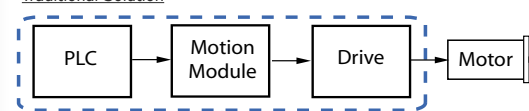
Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

## Stand Alone Mode

**PUser Programmable - e3PLC- c0390 - c0490**

**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.

Traditional Solution



e3PLC Solution



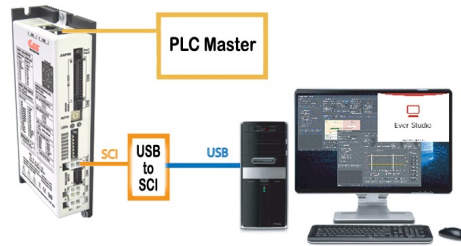
The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion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

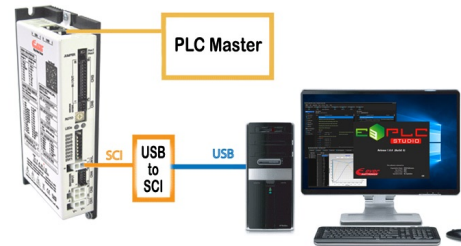
## Configuration and programming

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

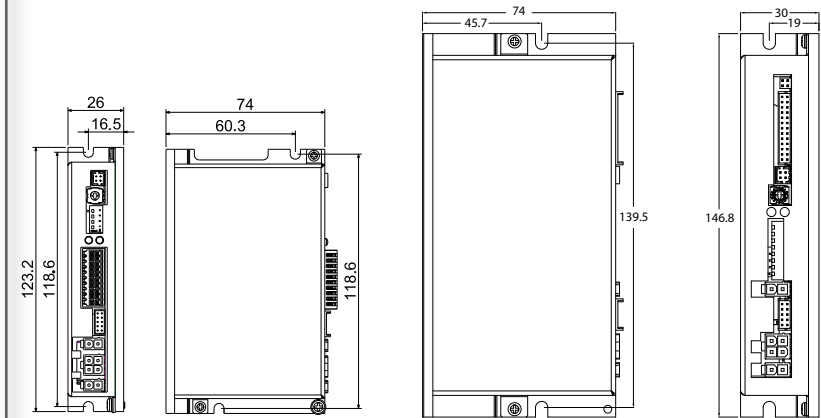
**Electric shaft** with encoder or analogue input with variable tracking ratio (Electric Gear)

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



Models	Dimensions (mm)			Weight (g.)
	H	L	W	
SW4D2070x231-xx	123.2	74.0	26.0	350
SW4A3070x261-xx	146.8	74.0	30.0	450

## Ordering Information for SW4 Drives

Ordering code		Power			System Resources								Kits codes	
Versions	Config.	Power Supply	Logic Power Supply	Current	Digital Inputs	Digital Outputs	Analog Inputs	Analog Outputs	Interfaces	Encoder Interface	Safety Input	SCI Interface	Contol Mode	Software Kits
<b>SW4 Drives Line: 2070 Models</b>														
SW4D2070C231-00	c0380	12 ÷ 48 Vdc	12 ÷ 48 Vdc	0 ÷ 7.1 Arms (0÷10.0 Apeak)	4	3	2	0	CANbus Canopen	Incremental	---	Service serial for configuration and/or programming and debug in real time	CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4D2070M231-00	c0490								Modbus				e3PLC Modbus	SW4_SERV00-EE
<b>SW4 Drives Line: 3070 Models</b>														
SW4A3070C261-00	c0380	18 ÷ 56 Vac	24 ÷ 80 Vdc	0 ÷ 7.1 Arms (0÷10.0 Apeak)	4	2	2	0	CANbus Canopen	Incremental	---	Service serial for configuration and/or programming and debug in real time	CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4A3070C261-02	c0380								Modbus	Incremental	---		CANopen DS402	SW4_SERV00-SL
	c0390							e3PLC CANbus					SW4_SERV00-EE	
SW4A3070M261-00	c0490								Modbus	Absolute *1	---		e3PLC Modbus	SW4_SERV00-EE
SW4A3070M261-02	c0490												e3PLC Modbus	SW4_SERV00-EE

\*1 Available for closed loop of position only.