

## Specifications

### MODELS

Model	Power Supply	Current
SW4D2042	12 ÷ 48 Vdc	0.0 ÷ 4.2 ARMS (6 APEAK)
SW4A3070	18 ÷ 56 Vac	0.0 ÷ 7.0 ARMS (10 APEAK)

### COMMUNICATION INTERFACE

Ethernet Modbus TCP/IP

### ENCODER INTERFACE

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

### SCI INTERFACE

service SCI interface for programming and real time debug

### OPTOISOLATED INPUTS

4 digital inputs 2-24 Vdc NPN, PNP or Line-Driver 2 MHz

### OPTOISOLATED OUTPUTS

2 digital outputs PNP, 24 Vdc - 100 mA

### STO INPUTS

Safe Torque OFF inputs (only for codes SW4A3070x241-20)

### 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 0°C to 40°C, storage -25°C to 55°C

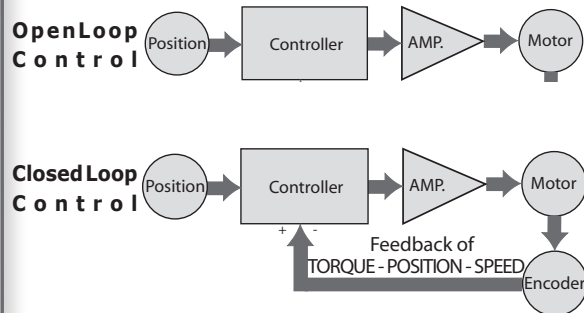
### HUMIDITY

5% ÷ 85%

### PROTECTION CLASS

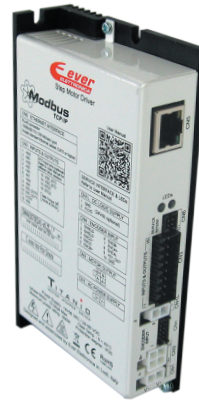
IP20

## Open-loop / Closed-Loop



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

## Modbus TCP/IP Fieldbus and Programmables vectorial drivers for 2 phases stepper motors



**TITANIO**  
VECTOR - STEPPER - DRIVES



# SW4 Titanio drivers

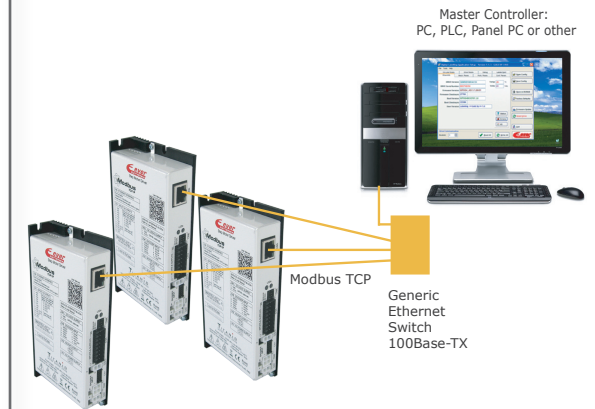
- Ethernet Modbus TCP/IP
- Service serial for real time programming and debugging
- Compliance with the most common PLC Masters on the market
- Integrated oscilloscope
- Vectorial control, for smooth and silent movements
- Closed loop of speed, torque and position
- Easily programmable with e3PLC Programming Environment

**Ever**  
ELETRONICA  
the clever drive

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## Multi Axes Systems

Slave Mode - c0890 Modbus TCP/IP



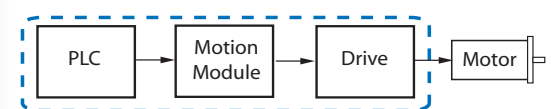
Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

## Stand Alone Mode

User Programmable - e3PLC- c0890

e3PLC integrates PLC, Motion Module, Process Module and drive in One Device. e3PLC Studio PC interface is available to friendly, fast and easy custom to machine or process device programming.

Traditional Solution



e3PLC Solution



Atomic Handler permits user to access all the functionalities and resources of the device and to manage and synchronize the motion module and other drive resources to any process' events.

Access to all Powerful Motion functionalities

Built in **Process Real Time Modules** for special applications:

- Labelling
- CAM
- Wire Processing
- User Custom Process
- .....

## Configuration and programming

### Fieldbus configuration (slave) - c0800



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.

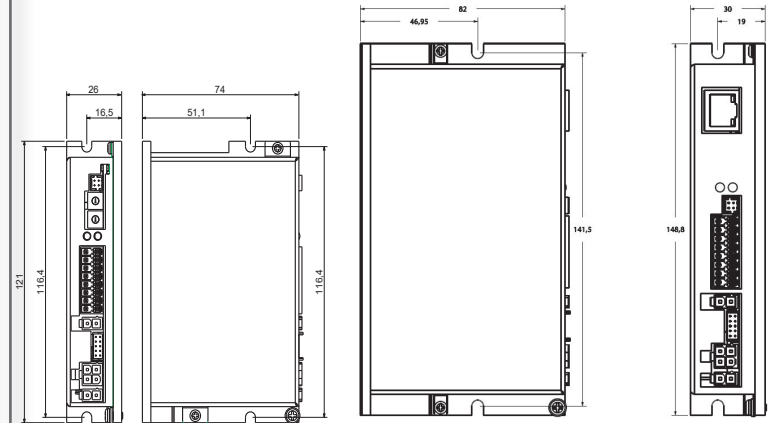
Possibility to synchronize the movements in multi-axis systems, even without fieldbus

Enabling and on-the-fly changing of the motion control modes

### IDE e3PLC configuration (programmable) - c0890



## Mechanical Data



Models	Dimensions (mm)			Weight (g.)
	H	L	W	
SW4A2042E241-00	121.0	74.0	26.0	280
SW4A3070E241-02	148.8	82.0	30.0	385

## Ordering Information for SW4 Modbus TCP/IP Drives

Ordering code		Power			System Resources				Control mode	
Versions	Config.	Power supply	Logic power supply	Current	Digitals Inputs	Digitals Outputs	Encoder	Interfaces	SCI Interface	Mode
<b>SW4 Drives Line</b>										
SW4D2042E241-00	c0890	12 ÷ 48 Vdc	12 ÷ 48 Vdc	0 ÷ 4.2 Arms (0÷6.0 Apeak)	4	2	Incremental	Ethernet Modbus TCP/IP	Service serial for configuration, programming and debug in real time	e3PLC Modbus TCP/IP
SW4A3070E241-00	c0890	18 ÷ 56 Vac	24 ÷ 80 Vdc	0 ÷ 7.1 Arms (0÷10.0 Apeak)			Incremental			e3PLC Modbus TCP/IP
SW4A3070E241-02	c0890						Absolute *1			e3PLC Modbus TCP/IP

### Configuration and Programming Kits

Code	Description
SW4_SERV00-EE	SCI service e3PLC programming with cables, Service serial to RS485 and RS485 to USB converters and CD-Rom.

\*1 Available for closed loop of position only.