Programmable vectorial drivers for 2 phases stepper motors

TITANIO
VECTOR - STEPPER - DRIVES

WARRANTY 3 YEARS

CANopen DS402

Modbus

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 for driver's versions equipped with encoder input

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Features

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)
SW4A4085	18 ÷100 Vac	---	8.5 Arms (12 Apeak)

COMMUNICATION INTERFACE
Modbus or CANbus

ENCODER INTERFACE
- incremental encoder not isolated input 5V Differential (RS422) or 5V Single-Ended (TTL/CMOS) (SW4D2070 and SW4A3070) or absolute encoder input 5V BISS-C or SSI (SW4A3070x261-02 only)
- encoder output not isolated 5V Differential (RS422) (SW4A3070 only)

SCI INTERFACE
service SCI interface for programming and real time debug

OPTOISOLATED INPUTS
4 digital inputs

OPTOISOLATED OUTPUTS
2 digital outputs (SW4A3070 and SW4A4085) or 3 digital outputs (SW4D2070)

ANALOG INPUTS
2 analog inputs

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

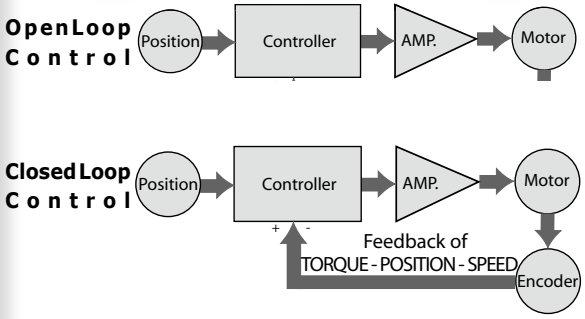
SAFETY PROTECTIONS
Over/UnderVoltage, OverCurrent, OverTemperature, Phase/Phase and Phase/Ground Short

TEMPERATURE
operating from 5°C to 40°C, storage -25°C to 55°C

HUMIDITY
5% ÷ 85%

PROTECTION CLASS
IP20

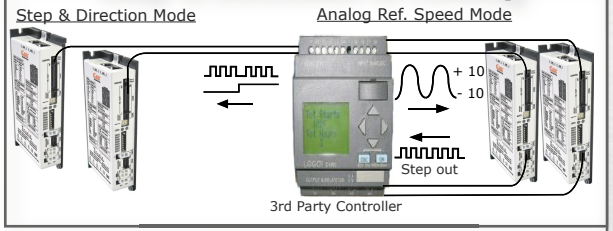
Open loop / Closed Loop



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

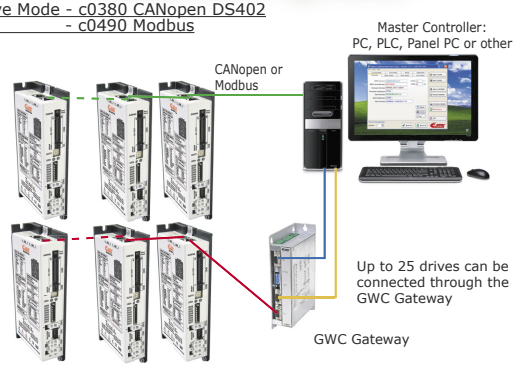
Control Modes

Step & Direction or Analog



Multi Axes Systems

Slave Mode - c0380 CANopen DS402
- c0490 Modbus

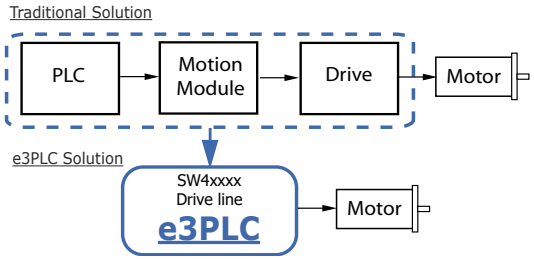


Drive control through commands by Master Controller.
Suitable for multi axes systems (up to 127 drives).
Built in powerfull Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

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.



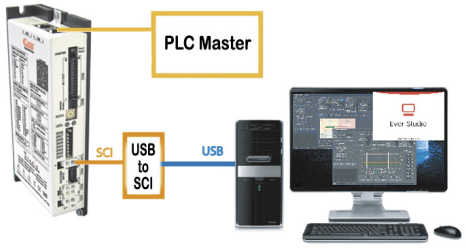
The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion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

Available Models

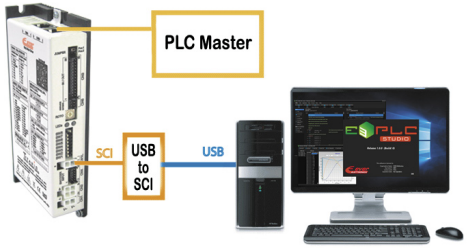
Configuration and programming

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

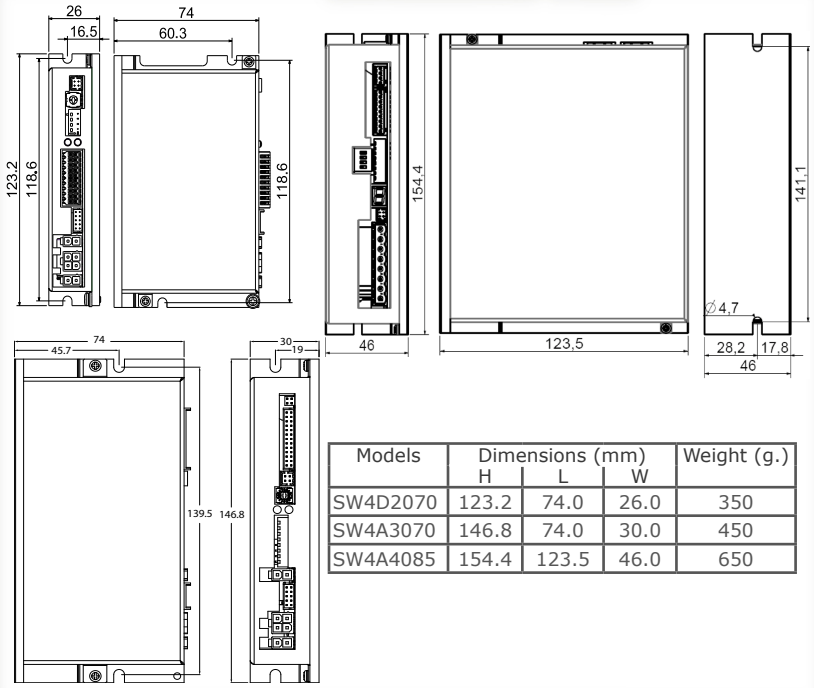
Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

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) H	L	W	Weight (g.)
SW4D2070	123.2	74.0	26.0	350
SW4A3070	146.8	74.0	30.0	450
SW4A4085	154.4	123.5	46.0	650

Ordering Information for SW4 Drives

Ordering code		Power			System Resouces								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
SW4 Drives Line: 2070 Models														
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 configurationa and/or program-ming and debug in real time	CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4D2070M231-00	c0490								Modbus RTU				e3PLC Modbus	SW4_SERV00-EE
SW4 Drives Line: 3070 Models														
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 configurationa and/or program-ming and debug in real time	CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4A3070C261-02	c0380									Absolute *1			CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4A3070M261-00	c0490								Modbus RTU	Incremental			e3PLC Modbus	SW4_SERV00-EE
SW4A3070M261-02	c0490									Absolute *1			e3PLC Modbus	SW4_SERV00-EE
SW4 Drives Line: 4085 Models														
SW4A4085C261-00	c0380	18 ÷ 100 Vac	---	0 ÷ 8.5 Arms (0÷12.0 Apeak)	4	2	2	0	CANbus Canopen	---	---	Service serial for configurationa and/or program-ming and debug in real time	CANopen DS402	SW4_SERV00-SL
	c0390												e3PLC CANbus	SW4_SERV00-EE
SW4A4085M261-00	c0490								Modbus RTU				e3PLC Modbus	SW4_SERV00-EE

*1 Available for closed loop of position only.

Mechanical Specifications