Programmable vectorial drivers for 2 phases stepper motors

TITANIO
VECTOR - STEPPER - DRIVES

EtherCAT

Modbus TCP/IP

CANopen DS402

Modbus

WARRANTY 3 YEARS

STO

SW5A5080

- Can be powered from the main AC supply (120 Vac)
- Vectorial control
- Safe Torque Off inputs
- Several fieldbus
- Serial Service for real time programming and debugging
- New e3PLC Programming Environment, easy and intuitive

Features

Specifications

MODELS

Code	Power supply		Current
	Power	Logic	
SW5A5080	85 ÷ 120 Vac single phase or 3 phases	24 Vdc (mandatory)	8.00 Arms (11.3 Apk)

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

COMMUNICATION INTERFACES
EtherCAT, Modbus TCP/IP, CANopen, Modbus

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

ANALOG OUTPUT
up to 2 analog outputs

OPTOCOUPLED STO INPUTS
Safe Torque Off inputs

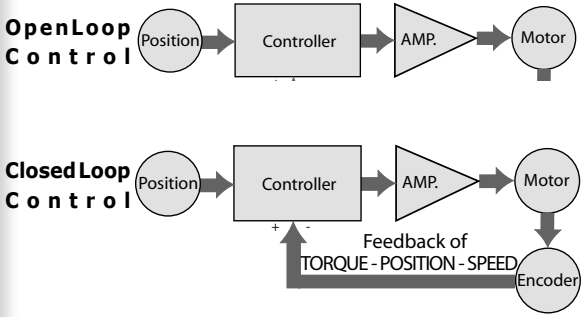
SAFETY PROTECTIONS
over/under-voltage, over current, overheating, short circuit between motor phase to phase and phase to ground

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

ever ELETTRONICA
the clever drive

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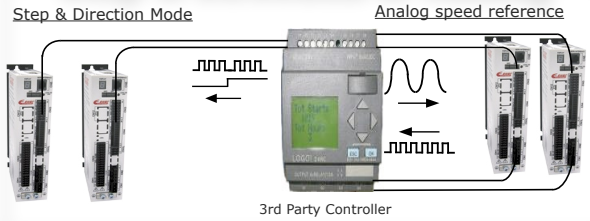
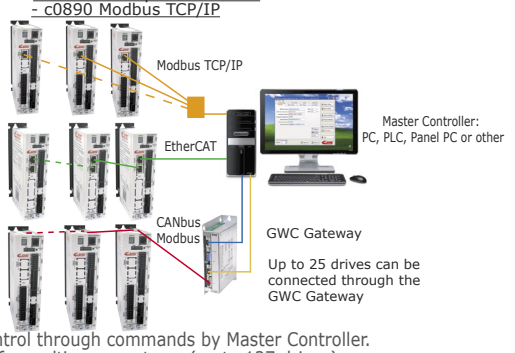
Control Modes

Step & Direction or Analog



Multi Axes Systems

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

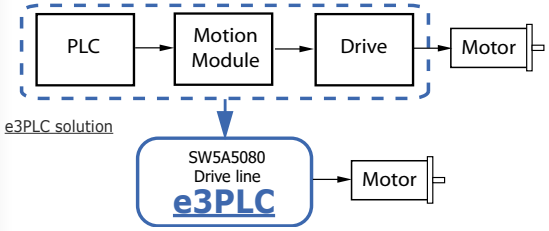


Drive control through commands by Master Controller.
Suitable for multi axes systems (up to 127 drives).
Built in powerfull Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

Stand Alone Mode

User Programmable - e3PLC- c0690 / c0790 / c0890

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.

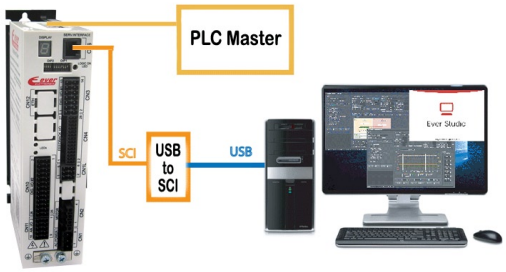


The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion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

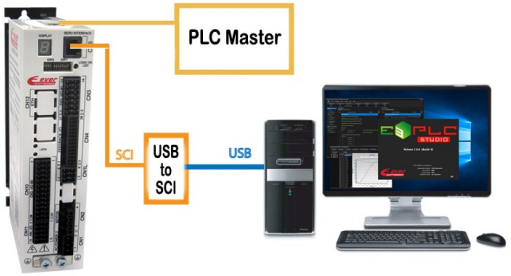
- *Labelling*
- *Electronic cams*
- *Control Sequences of cable processing*
- *Many other user-customized processes ...*

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

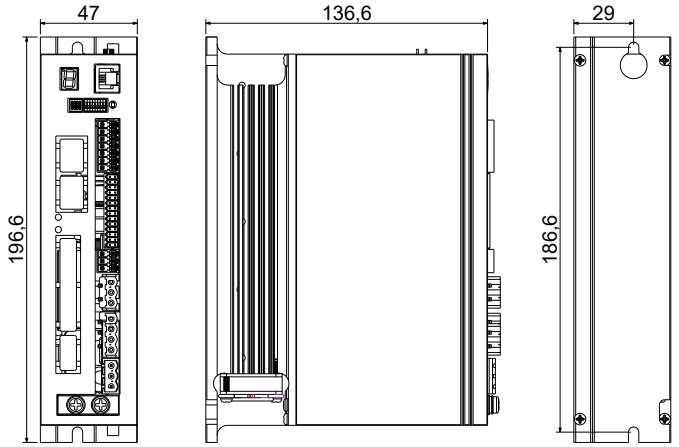
Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

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) H	L	W	Weight (g.)
SW5A5080xxxx-30	196.6	136.6	47.0	550

Ordering Information for SW5A5080 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
SW5A5080 Drives Line												
SW5A5080N221-30	c0790-S0200	85 ÷ 120 Vac	24 Vdc (mandatory)	0 ÷ 8.0 Arms (0÷11.3 Apeak)	4	3	0	0	YES	---	For configuration, programming and real time debug	Clock & Direction
	c0790-S0301											Indexer
SW5A5080N2E1-30	c0790-S0302				4	3	1	0	YES	---		Analog input
SW5A5080L221-30	c0380				4	3	0	0	YES	CANbus Canopen + Serial Modbus		e3PLC CANopen + Modbus
	c0790											e3PLC CANbus + Modbus
SW5A5080L2E1-30	c0380				4	3	1	0				Fieldbus CANbus DS402
	c0790											e3PLC CANbus + Modbus
SW5A5080L2G1-30	c0380				16	12	2	2				Fieldbus CANbus DS402
	c0790											e3PLC CANbus + Modbus
SW5A5080E221-30	c0890				4	3	0	0	YES	Ethernet Modbus TCP/IP		e3PLC Modbus TCP/IP
SW5A5080E2G1-30	c0890				16	12	2	2	YES			e3PLC Modbus TCP/IP
SW5A5080H221-30	c0680				4	3	0	0	YES	EtherCAT (CoE)		Fieldbus EtherCAT
	c0690											e3PLC EtherCAT

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.

Available Models

Mechanical Specifications