

## Specifications

| Code     | Power supply                                |                       | Current              |
|----------|---|-----------------------|----------------------|
|          | Power                                       | Logic                 |                      |
| SW5A5080 | 85 ÷ 120 Vac<br>single phase<br>or 3 phases | 24 Vdc<br>(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 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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**OPTOCOUPLED STO INPUTS**  
Safe Torque Off inputs

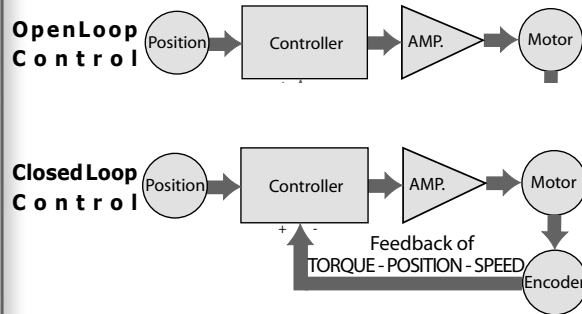
**SAFETY PROTECTIONS**  
over/under-voltage, over current, overheating,  
short circuit between motor phase to phase and phase to ground

**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**

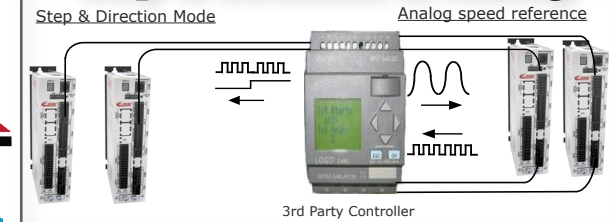
# SW5A5080

- Can be powered from the main AC supply (120 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**  
**ELETRONICA**  
the clever drive

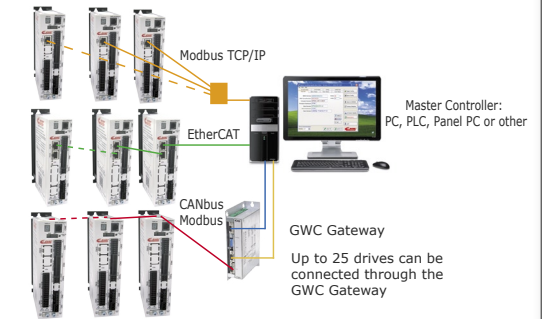
**ELETRONICA PER AUTOMAZIONE INDUSTRIALE**  
Via del Commercio, 2/4 - 9/11  
Loc. S. Grato - Z.I.  
26900 - LODI (LO) - Italy  
Tel. +39 0371 412318 - Fax +39 0371 412367  
email infoever@everelettronica.it  
www.everelettronica.it

## Step & Direction or Analog



## Multi Axes Systems

- Slave mode - c0380 CANopen\_DS402  
- c0680 EtherCAT  
- c0790 CANopen + Modbus  
- c0890 Modbus TCP/IP  
- c0990 Profinet

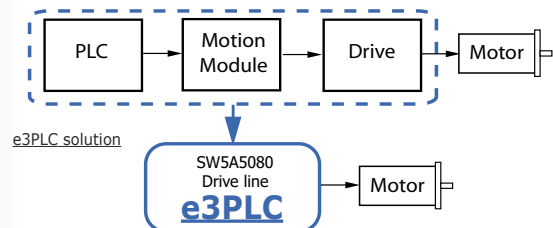


Drive control through commands by Master Controller. Suitable for multi axes systems (up to 127 drives). Built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload.

## 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.

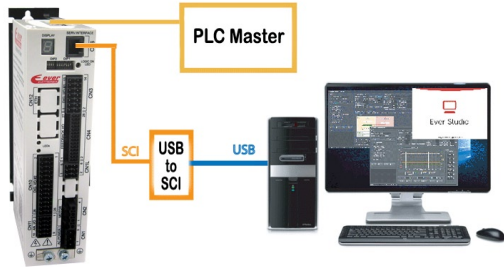


The e3PLC IDE allows the user to access all the I/O control functions and resources, provided by the drive, and to locally program its Motion Control Module, which can also be synchronized with other drives and events of the controlled process. Thanks to the advanced functionalities of the Power Motion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

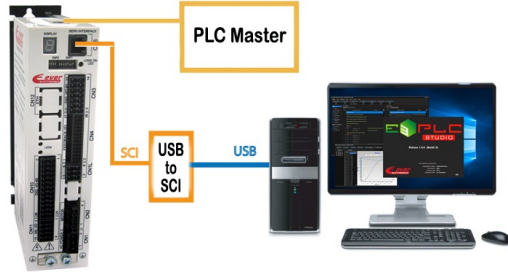
- Labelling
- Electronic cams
- Control Sequences of cable processing
- Many other user-customized processes ...

## 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

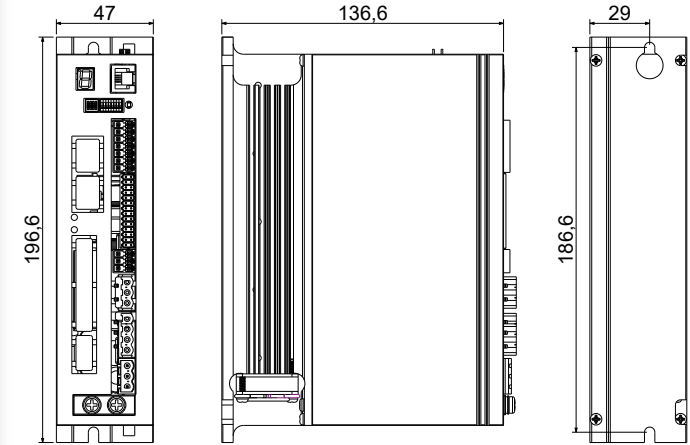
**Electric shaft** with encoder or analogue input with variable tracking ratio (Electric Gear)

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    |             |
| 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           |                       |
| <b>SW5A5080 Drives Line</b> |                            |              |                       |                                |                  |                 |               |                |            |  |  |                        |                       |
| SW5A5080N221-30             | c0790-S0200<br>c0790-S0301 | 85 ÷ 120 Vac | 24 Vdc<br>(mandatory) | 0 ÷ 8.0 Arms<br>(0÷11.3 Apeak) | 4                | 3               | 0             | 0              | YES        | ---  | For configuration,<br>programming<br>and real time debug | Clock & Direction      |                       |
| SW5A5080N2E1-30             | c0790-S0302                |              |                       |                                | 4                | 3               | 1             | 0              | YES        | ---  |  | Indexer                |                       |
| SW5A5080L221-30             | c0380                      |              |                       |                                | 4                | 3               | 0             | 0              | YES        | CANbus<br>Canopen<br>+<br>Serial<br>Modbus |  | e3PLC CANopen + Modbus |                       |
|                             | c0790                      |              |                       |                                | 4                | 3               | 0             | 0              |            |  |  |                        | e3PLC CANbus + Modbus |
| SW5A5080L2E1-30             | c0380                      |              |                       |                                | 4                | 3               | 1             | 0              |            |  |  |                        | Fieldbus CANbus DS402 |
|                             | c0790                      |              |                       |                                | 4                | 3               | 1             | 0              |            |  |  |                        | e3PLC CANbus + Modbus |
| SW5A5080L2G1-30             | c0380                      |              |                       |                                | 16               | 12              | 2             | 2              |            |  |  |                        | Fieldbus CANbus DS402 |
|                             | c0790                      |              |                       |                                | 16               | 12              | 2             | 2              |            |  |  |                        | e3PLC CANbus + Modbus |
| SW5A5080E221-30             | c0890                      |              |                       |                                | 4                | 3               | 0             | 0              | YES        | Ethernet<br>Modbus<br>TCP/IP               |  | e3PLC Modbus TCP/IP    |                       |
| SW5A5080E2G1-30             | c0890                      |              |                       |                                | 16               | 12              | 2             | 2              | YES        | Ethernet<br>Modbus<br>TCP/IP               |  | e3PLC Modbus TCP/IP    |                       |
| SW5A5080H221-30             | c0680                      |              |                       |                                | 4                | 3               | 0             | 0              | YES        | EtherCAT<br>(CoE)                          |  | Fieldbus EtherCAT      |                       |
|                             | c0690                      |              |                       |                                | 4                | 3               | 0             | 0              | YES        | EtherCAT<br>(CoE)                          |  | e3PLC EtherCAT         |                       |
| SW5A5080T221-30             | 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.       |