

Specifications

POWER SUPPLY

separated for power and for logic

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

EtherCAT CoE

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

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

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

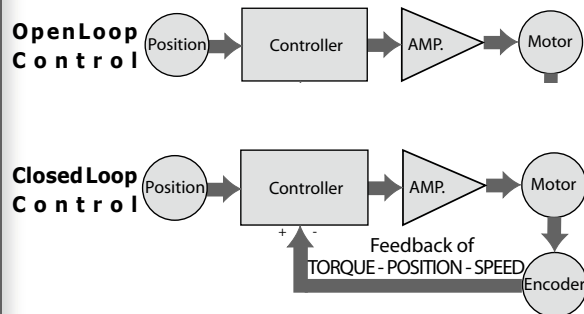
HUMIDITY

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

EtherCAT Fieldbus vectorial drivers for 2 phases stepper motors

TITANIO
VECTOR · STEPPER · DRIVES



EtherCAT®

SW4 Titanio drivers

- Ethercat CoE with DS402 functionalities
- 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



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EtherCAT CoE DS402

Fieldbus configuration (slave) - c0680

EtherCAT (CoE) with integrated DS402 functionalities.

- Supported Modes:
Profile Position Mode, Velocity Mode
Profile Velocity Mode, Homing Mode
Interpolated Position Mode
Cyclic Synchronous Position Mode
Cyclic Synchronous Velocity Mode
- Multiple Supported Homing Modes:
1, 2, 17, 18, 19, 20, 21, 22, 35, 37
- Synchronization Mode:
Free Run, Synchronous with SM Event, Distributed Clocks
- Diagnostic Service:
EMCY, Diagnostics
- Minimum cycle time:
500 microseconds
- Conformity with Beckhoff ET9400 Conformance Test Tool V2.1.0, master Robox ed Omron

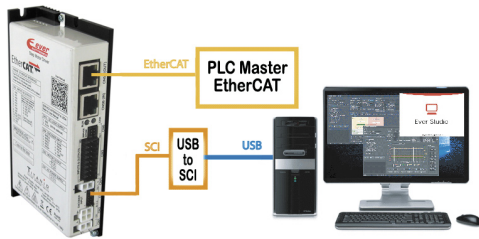


Drive control through commands by Master Controller

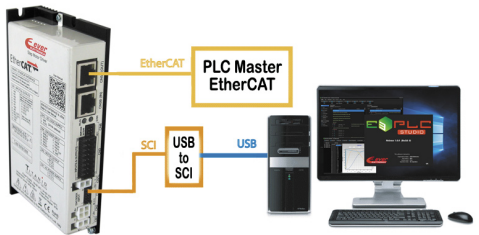
Suitable for multi axes systems, built in powerful Motion Module functionality assures perfect synchronization among axes and reduces Master Controller workload

Configuration software

Fieldbus configuration (slave) - c0680



IDE e3PLC configuration (programmable) - c0690



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

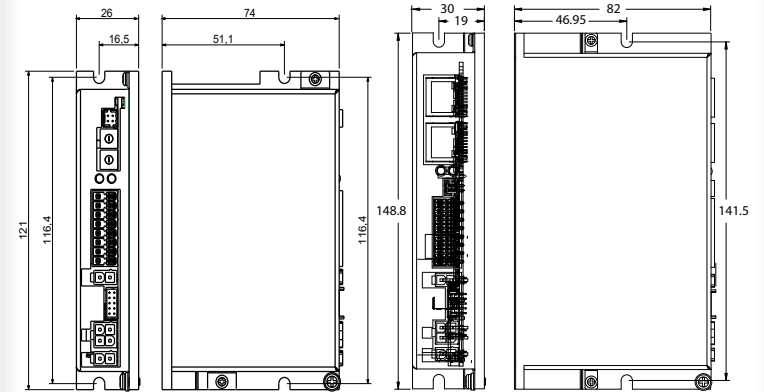
Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

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	
SW4D2042H241-00	121.0	74.0	26.0	280
SW4A3070H241-0x	148.8	82.0	30.0	390

Available Models

Mechanical Specifications

Ordering information for SW4 EtherCAT drives

Ordering code		Power			System resources					Control mode
Versions	Config.	Power supply	Logic Power Supply	Current	Digital inputs	Digital outputs	Interface	Encoder	SCI interface	Modes
SW4 EtherCAT drives Models										
SW4D2042H241-00	c0680	12 ÷ 48 Vdc	12 ÷ 48 Vdc	0 ÷ 4.2 Arms (0÷6.0 Apeak)				Incremental		Fieldbus EtherCAT (slave)
	c0690									
SW4A3070H241-00	c0680	18 ÷ 56 Vca	24 ÷ 80 Vcc	0 ÷ 7.1 Arms (0÷10.0 Apeak)	4	2	EtherCAT CoE	Incremental	Service serial for configuration, programming and debug in real time	Fieldbus EtherCAT (slave)
	c0690									e3PLC IDE Studio (programmable)
SW4A3070H241-02	c0680							Absolute *1		Fieldbus EtherCAT (slave)
	c0690									e3PLC IDE Studio (programmable)

Configuration and Programming Kits

Kit code	Description
SW4_SERV00-SL	SCI configuration communication kit with cables, service serial to RS485 and RS485 to USB converters and CD-Rom.
SW4_SERV00-EE	SCI service eePLC programming with cables, service serial to RS485 and RS485 to USB converters and CD-Rom.

*1 Available for closed loop of position only.