

Specifications

POWER SUPPLY

separated for power and for logic

Model	Power Supply	Current
SW4D2070	12 ÷ 48 Vdc	0.0 ÷ 7.0 ARMS (10 APEAK)

COMMUNICATION INTERFACE

Profinet

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 5-24 Vdc NPN, PNP or Line-Driver

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 5°C to 40°C, storage -25°C to 55°C

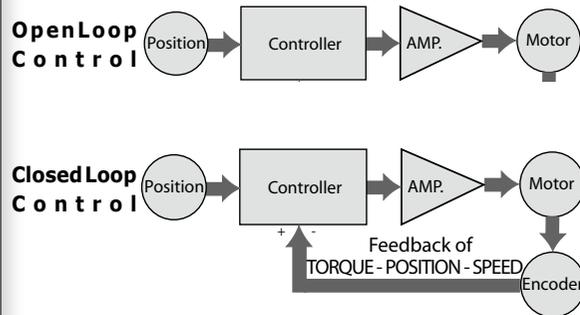
HUMIDITY

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

Profinet Fieldbus vectorial drivers for 2 phases stepper motors

TITANIO
VECTOR - STEPPER - DRIVES



SW4 Titanio drivers

- Profinet
- 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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Profinet

Configuration programmable - c0990

Profinet DP is used for data exchange between controllers or PLC and IO devices or drives. Main Profinet DP characteristics implemented in our drives are:

- develop with the Enhanced Real-Time Ethernet Controller 200P (siemens V4.6 PN Stack inside)
- GSDML V2.35 file
- it features an IRT switch (Dual Ethernet)
- it can be controlled over Profinet as an IO device
- supports RT (Real Time) protocol for Profinet IO, for applications with up to 10 ms cycle time: module 64 bytes I, 64 Bytes O
- supports IRT (Isochronous Real Time) protocol for Profinet IO, for applications with less than 1 ms cycle time: module 64 bytes I IRT, 64 Bytes O IRT
- it uses 64bytes (Input) and 64bytes (Output) to transfer IO data between the IO-Controller (PLC) and the IO-Device (SW5A Profinet)
- 16 bytes (I/O) are fixed mapped
- 40 bytes (I/O) may be variably mapped to desired drives functions using e3PLC.
- 8 bytes (I/O) are used to R/W Drive objects according to CANOpen SDO service
- additionally, digital I/O (24Vdc) and analog Inputs are available as distributed I/O points over Profinet

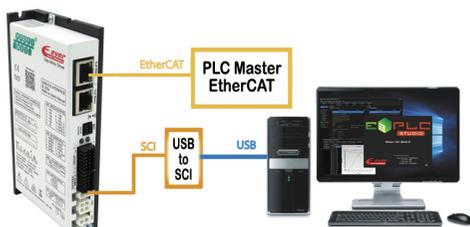


Drive control through commands by Master Controller

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

Configuration software

IDE e3PLC configuration (programmable) - c0990



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

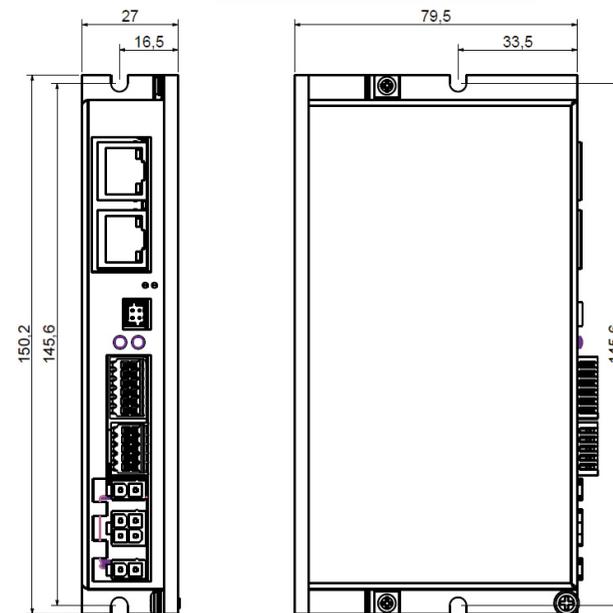
Electric shaft with encoder or analogue input with variable tracking ratio (Electric Gear)

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	
SW4D2070T241-0x	150.2	79.5	27.0	290

Ordering information for SW4 Profinet 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										
SW4A2070T241-00	c0990	12 ÷ 48 Vdc	12 ÷ 48 Vdc	0 ÷ 7.1 Arms (0÷10.0 Apeak)	4	2	Profinet	Incremental	Service serial for configuration, programming and debug in real time	Profinet mode
SW4A2070T241-02								Absolute		

Configuration and Programming Kits

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