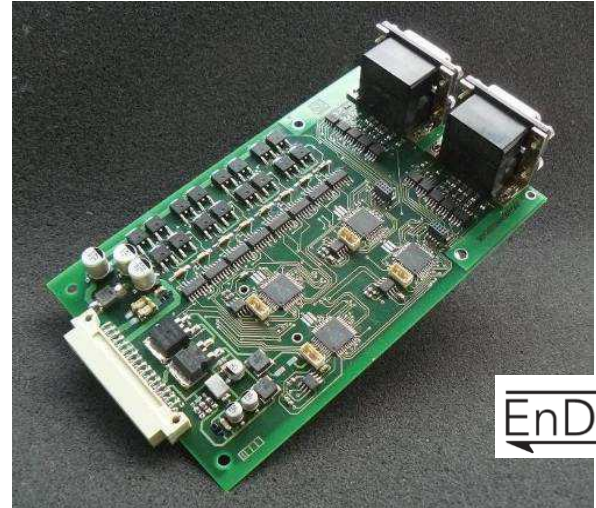


Update : 27/07/2013



EnDat

Non-contractual photos

1 - Presentation

Control board of bipolar stepper motor axis with mono axis encoder interface ISPC1AMPP-1C, (OEM version) or double axis ISPC2AMPP-2C (for mass production only).

2 - Available control modes

- Absolute and relative displacement.
- Motor move by full step or $\frac{1}{2}$ step
- Velocity profile: start/stop or acceleration/deceleration ramp
- Speed and acceleration rate's adjustment up to 4 kHz
- Collision management allowing to reduce the backlash on motion limit.
- Homing on cam with adjustable collision and original clearance value.
- Free displacement to limit switch
- Natural forcing
- Adjustable motor current (maximum 1.8A). (*)
- Software stops adjustable by configuration

- Holding current on position at limit motion (Current and length adjustment).

() Upon motor impedance*

3 - Each axis has the following interfaces

- Bipolar motor.
- Incremental encoder (configurable conversion rating step encoder/ step motor) (**)
- Absolute encoder ENDAT, SSI, SPI. (**)
- Two inputs limit 24Vdc, (electrically isolated can be reversed or inhibited by software configuration)
- One original cam input 24Vdc, and electrically isolated (inhibition possible).
- 2 Go no Go inputs 24 Vdc configuration free
- 1 Go no Go output PNP - 24Vdc 400mA.
- Limit switch sensors and the original cam can be configured as contact at close or open.

*(**) the previous supply of a copy of each model of due encoder is recommended to ensure validation and interfaces adaptation to customer needs.*

Power supply :

- Power supply : 24 to 48Vdc
- Logic Supply: 24V (separated of the power supply))
- Possibility to supply the encoder through the control board providing an external power
- Backup of the motor position and encoder in case of logical power shut-off.

Driving :

- Control board driven by CANOpen

Available accessory of control by bus CANOpen :

- USB Gateway to CAN
- Ethernet Gateway to CAN
- Gateway for control board PROFINET IO (Datasheet ISP10A528FPI0040)

Linked product :

- ISP FDP7C2AMPP-CAN :Control Rack of 7 board ISP C2AMPP-2C by CANOpen
- ISP FDP6C2AMPP-PN : Control rack of 6 board ISP C2AMPP-2C driven by PROFINET node
- IHM labview 7.1 and upper
- IHM windows (Every gateway)
- IHM linux

4 - Applications

- Positioning axis control board with stepper motor, encoder monitoring return, physical and software limit monitoring and homing
- Multi axis positioning control board through the plugging of various board with dialogue on a same communication bus CANOpen or backplane ISP SYSTEM (ex : ISP FDP6C2AMPP).
- Pilotage de systèmes de laboratoire avec interface Labview ou en C++/Qt.

5 - Technical specifications

CHARACTERISTICS (except options)	VALUES
Logic Power supply	24VDC
Motor power supply	24VDC to 48VDC
Maximal intensity per motor	2A per phase(*)
Motor voltage	24VDC to 48VDC
Dimensions	<ul style="list-style-type: none"> • PCB Europe size: 100mm x 160mm • Height 3U • Mono Axis ISP C1AMPP-1C : 5F • Double Axis ISP C2AMPP-2C : 10F
Motor connector	SUBD 15 female
Encoder connector	SUBD 15 male
Others electrical interfaces: <ul style="list-style-type: none"> • Logic and power supply • Communication bus CAN (3 wire) • Hardware addressing of SID CAN on 4 bits 	DIN 41612 B/2 32 channel
TOR Inputs	<ul style="list-style-type: none"> • Input : 24VDC • Nominal Current : between 5 and 15mA • Maximal current : 30mA
TOR outputs	<ul style="list-style-type: none"> • Input : 24VDC • Maximum current 300mA • Inrush current : 2A (length <10ms)
Reliability	Axis drawers and encoder module: 150,000 h

Nota: Technical data of this datasheet may be subject to modifications, depending on product updates