

IPS210 INTELLIGENT DC / STEPPER MINIDRIVE

DIGITAL MOTOR CONTROL FOR DC AND STEP MOTORS

2x12W

The IPS210 is a new member of the fully Digital Motion Controllers family from Technosoft with embedded intelligence based on the latest DSP controller technology.

Specially designed to perform any stepper control mode from open loop to closed loop stepless operation with encoder feedback, the IPS210 drive works in either single-, multi-axis or stand-alone configurations.

Like all members of their family, the IPS210 drive «speaks» Technosoft Motion Language - a powerful high level instruction set for the definition and the execution of complex motion sequences.

Communication channels are provided under RS232 or CAN 2.0B interfaces (optional).

Compatible with Technosoft EasyMotion Studio for quick configuration, tuning and motion programming, the IPS210 drive offers a flexible and easy to implement solution for a wide range of stepper applications.

EASY SET-UP AND PROGRAMMING

“MOTION CONTROL AT THE CLICK OF A MOUSE”

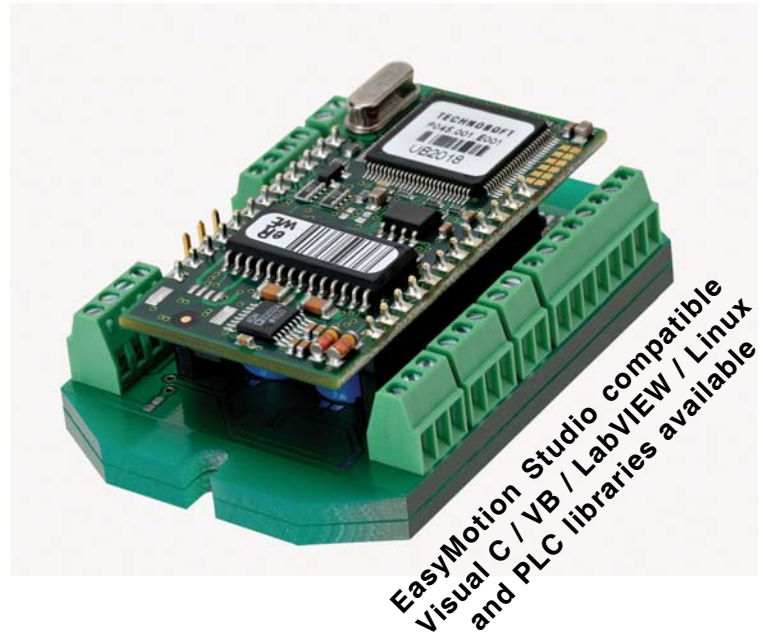
The configuration, tuning and programming of the IPS210 intelligent stepper drive is easy using the powerful graphical Technosoft EasyMotion Studio.

The **first step**, consists of the system **configuration** by the selection and definition of system structure, motor, sensors and control mode. Test procedures help you to test and verify the hardware structure, its integrity and functionality.

As a **second step**, the EasyMotion Studio supports the **parameterisation** and the **tuning** of the digital control loops of the selected motor control scheme. Data logging and scope facilities will capture variables during test movements for analysis and fine-tuning.

The **third step** refers to motion definition, and may already be followed by the final tests of the axis on your application. Using high level TML commands, you can define and start motion sequences via serial communi-

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FEATURES

- Fully digital stepper drive with embedded intelligence and PLC functionality
- Programmable with high level EasyMotion Studio software for quick axis configuration and tuning
- Various control modes as:
 - Speed or position control
 - Open/closed loop, microstepping and stepless operation
 - Electronic gearing, contouring, profiling
- High resolution up to equivalent of 256 microsteps/step
- Powerful Technosoft Motion Language (TML) instruction set for definition and execution of motion sequences in:
 - Single or multi axis control (master or slave mode)
 - Standalone operation with Stored Motion sequences
- RS-232 serial communication up to 115 Kbaud
- Optional CAN-Bus 2.0B up to 1 Mbit/s / CANopen
- Accepts external digital inputs / outputs
 - 2 programmable inputs / outputs
 - Differential Pulse & Direction inputs
 - Incremental encoder inputs
- Power supply for logic and motor (8-24V)
- 500mA continuous phase current rating
- Protection for over current, short circuit, earth fault, over temperature, over- and under-voltage, I²t, control error
- Miniaturized size: DIP24 format (62x42x20)mm

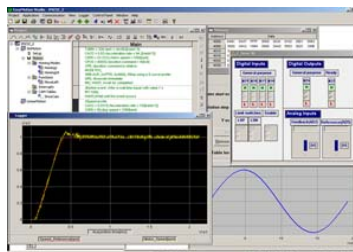
cation port from your host or PC, or execute pre-stored motion sequences, which can be activated through programmable I/O lines.

Application notes with ready to run Motion Language programs are available at

www.technosoftmotion.com

TYPICAL APPLICATIONS

- Systems with distributed motor control intelligence
- Packaging equipment
- Printing and Textile
- Automotive
- Pick and place
- Factory automation



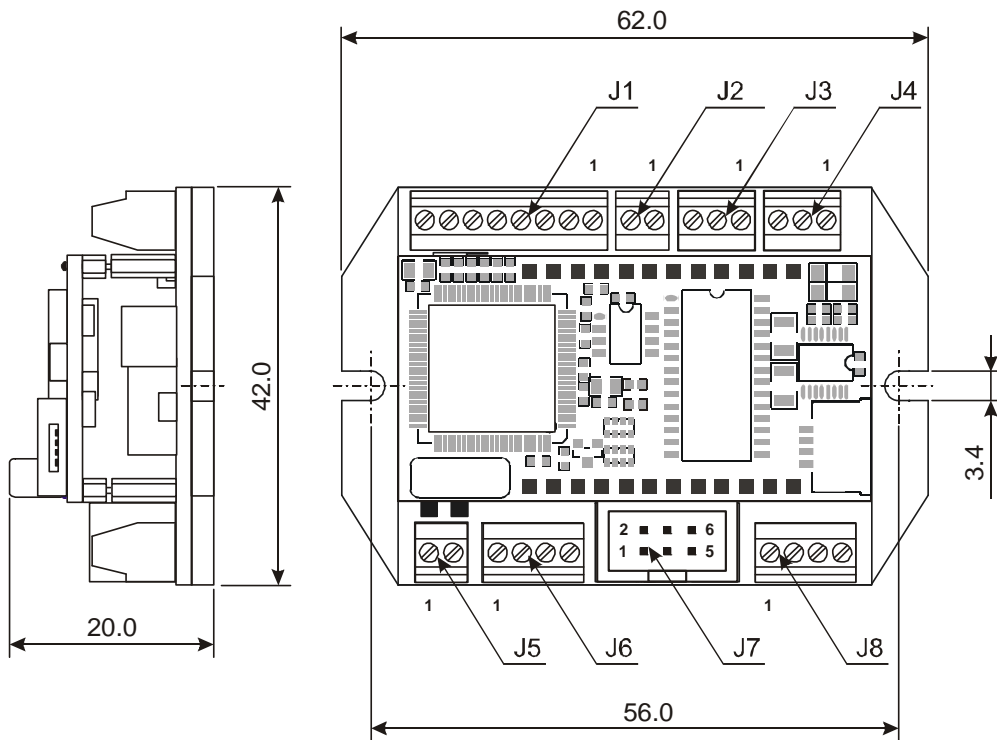
Your
Next
Intelligent
Move



TECHNO SOFT
MOTION TECHNOLOGY

DIMENSIONS, SPECIFICATION, ORDERING INFORMATION

IPS210



All dimensions in mm

EASYMOTION STUDIO

The high level graphical development environment EasyMotion Studio, supports the configuration, parameterization and programming of the drive, through

- Motion system set-up wizard
- Tuning assistance
- Definition, programming and testing of motion sequences

MOTION CONTROL LIBRARIES

The TML_LIB Motion Control Libraries can be used to implement a motion control application on a PC from Visual C / C++, C#, Visual Basic, Delphi or LabVIEW under Windows or Linux operating systems.

If a PLC is used as host, implementations of the TML_LIB observing the IEC 61131 standard are available for Siemens and Omron PLCs.

IPS210 STARTER KIT

Complete evaluation packages for the IPS drive, containing the servodrive, motor, I/O board, EasyMotion Studio software that are supported by a collection of application notes and documentation.

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IPS210 INTELLIGENT DC / STEPPER MINIDRIVE

Electrical Specifications	IPS210
DC supply voltage: motor and logic	8-24V
Maximum continuous current (per phase)	500mA
Peak current (1 sec. max.)	1A
Minimal load inductance	0μH
Nominal switching frequency	20kHz
Operating ambient temperature	0°C-40°C
Dimensions	62x42x20 mm

Ordering Information

P045.001.E201	IPS210 Microstep / DC Drive, 24V, 500mA, RS232
P045.001.E202	IPS210 Microstep / DC Drive, 24V, 500mA, CAN
P045.001.E212	IPS210 Microstep / DC Drive, 24V, 500mA, CANopen
P045.001.E086	IPS210 Starter Kit for DC Motor
P045.001.E087	IPS210 Starter Kit for Stepper Motor
P034.001.E002	EasyMotion Studio software
P040.001.Exxx	TML_LIB Motion Libraries*

* Ask for existing libraries types

FLEXIBILITY

Standard operation modes of IPS210 Intelligent DC / Stepper Minidrive

Operation Mode	Full / Half Step	Micro - stepping	Encoder (stepless)
Open Loop Step	✓	✓	
Closed Loop Step			✓
Closed Loop DC			✓

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