

iPOS8010 BX-CAN INTELLIGENT SERVO DRIVE 10A, 80V_{DC}

FOR BRUSHLESS, BRUSHED, LINEAR OR STEP MOTORS

DESCRIPTION

The iPOS8010 BX-CAN is a new member of the iPOS family of Technosoft intelligent drives. It is based on a new design concept for closed-frame drives, offering a very compact and cost effective solution for the control of rotary or linear brushless, DC brush, and step motors of powers up to 800 W.

Designed to cover low to medium volume applications, the iPOS8010 BX-CAN embeds motion controller, drive, and PLC functionalities into a single unit.

When used as an intelligent drive - like all other members of the iPOS family - the iPOS8010 BX-CAN is empowered by the extreme flexibility offered by the TML (Technosoft Motion Language) instruction set. The unit can replace a host in various single or multi-axis stand-alone applications.

Advanced positioning profiles like the PVT or electronic camming, I/O and program flow control, data transfer between axes, subroutines, ISRs and multiple homing modes ease the motion application implementation task.

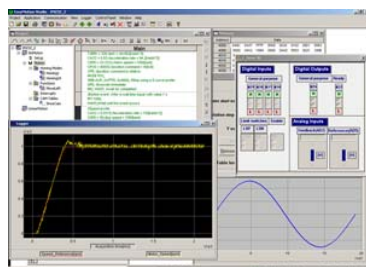
In systems that require a host, the iPOS operates as an intelligent slave executing motion sequences triggered via commands received on RS-232 or CAN while fully supporting as well the CiA402 CANopen drive profile.

DUAL LOOP

Equipped with 2 feedback connectors, the iPOS8010 BX-CAN provides advanced dual-loop control schemes that minimize the transmission backlash negative effects.

EASYMOTION STUDIO

The configuration, tuning and programming of the iPOS8010 BX-CAN drive is easy with Technosoft's powerful graphical platform, EasyMotion Studio.



P091.029.iPOS8010 BX-CAN.LFT.0615



FEATURES :

- Motion controller and drive in a single compact unit
- Universal drive solution for brushless, brushed, linear or step (true closed loop) motors
- Advanced motion control capabilities (PVT, S-curve, electronic cam)
- Motion programming via TML (Technosoft Motion Language) or motion libraries for Visual C / VB / LabVIEW / Linux and PLC
- Standalone operation with stored motion sequences
- Drive enable circuit
- Communication :
 - RS-232 serial
 - CAN-Bus with TMLCAN or CANopen (CiA301, 305, 402) protocols
- Digital and analogue I/Os:
 - 4 PNP/NPN digital programmable inputs, 24 V
 - 4 NPN digital outputs, 5 - 36 V, 0.5 A
 - 2 analogue inputs: 12 bit resolution, 0 - 5 V
- Feedback devices (dual-loop supported) :
 - 1st Feedback :
 - Incremental quad encoder (differential)
 - Analogue sine/cosine encoder (differential 1Vpp)
 - Digital Hall sensors
 - 2nd Feedback :
 - Incremental quad encoder (differential)
- Protections :
 - Over-current, over-temperature, short circuit
 - Over and undervoltage, i2t, control error

ELECTRICAL SPECIFICATIONS :

Motor power supply:	12 - 80 V _{DC}
Logic supply :	12 - 36 V _{DC}
Continuous phase current	10A
Peak current (10 sec. max.)	20 A
PWM switching frequency	20 - 60 kHz
Ambient operating temperature	0 °C - 40 °C

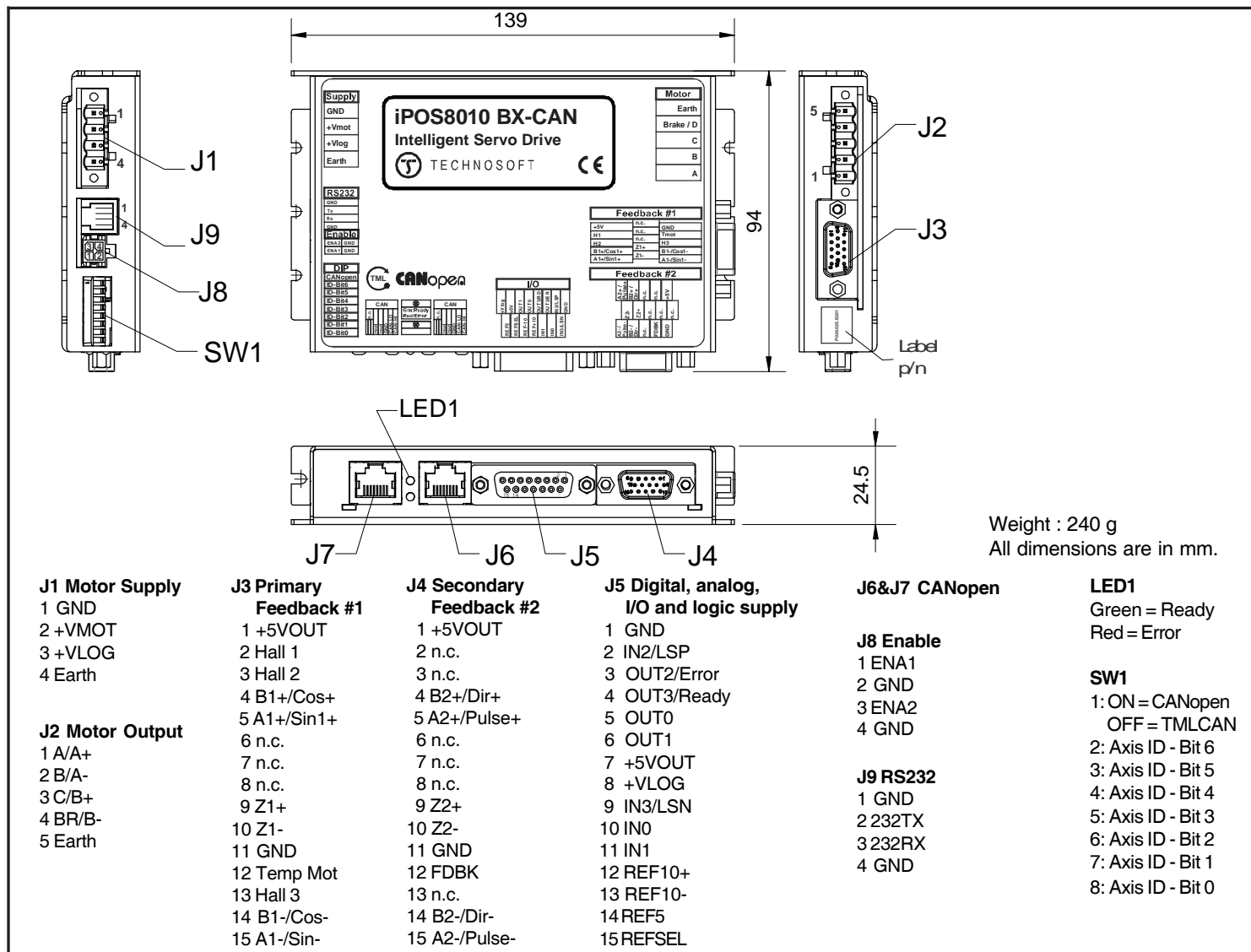
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Move



TECHNOSOFT
MOTION TECHNOLOGY

TECHNICAL AND ORDERING INFORMATION



ORDERING INFORMATION :

P029.025.E201 iPOS8010 BX-CAN, 80V,10A, cl. frame, Enc, CAN

P034.001.E002 EasyMotion Studio Software

P040.001.Exxx TML_LIB Motion Library*

*ask for existing libraries types

FLEXIBILITY :

Control schemes supported by the iPOS8010 BX-CAN Drive

Motor types	Torque Control	Speed Control	Position Control *
Brushless	✓	✓	✓
Brushed	✓	✓	✓
Step	✓	✓	✓
Linear	✓	✓	✓

* Dual-loop control supported

CONNECTORS TYPE AND MATING CONNECTORS :

Connector	Mating connectors
J1	CTBA9208/4FL CAMDEN-Boss
J2	CTBA9208/5FL CAMDEN-Boss
J3, J4	High Density D-Sub male, 15 pins
J5	D-Sub male, 15 pins
J6, J7	RJ-45 plug
J8	Molex 43045-0400
J9	RJ-10 plug

SALES OFFICES

HEADQUARTERS :

SWITZERLAND

Tel.: +41 32 732 55 00

Fax: +41 32 732 55 04

sales@technosoftmotion.com

GERMANY (Postcode: 2, 3, 4, 5, 6, 7)

Cell: +49 (0)173 77 200 03

Tel.: +49 (0)7156 3088018

Fax: +41 (0)32 732 55 04

sales.de@technosoftmotion.com

GERMANY (Postcode: 0, 1, 8, 9) /AUSTRIA

Cell: +49 (0)170 521 0007

Tel.: +49 (0)83319247293

Fax: +41 (0)32 732 55 04

sales.de@technosoftmotion.com

BENELUX

Tel.: +32 (0)14 21 13 21

Fax: +32 (0)14 21 13 23

sales.be@technosoftmotion.com

EASTERN EUROPE

Tel.: +40 (0)21 425 90 95

Fax: +40 (0)21 425 90 97

sales.ro@technosoftmotion.com

UNITED STATES

Tel.: +1 734 667 52 75

Fax: +1 734 667 52 76

sales.us@technosoftmotion.com

www.technosoftmotion.com

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 with capture functions
- 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 according with IEC-61131 standard are available for Siemens, B&R and Omron PLCs.

Application notes with TML program examples at :
www.technosoftmotion.com