motor
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TRIO
M O T I O N | T E C H N O L O G Y

DUAL PORT RAM DRIVE INTERFACE

Accessories:
P350 RS232 Serial Cable
P315 CAN 16 I/O
P325 CAN 8 Analogue Inputs

MOTION COORDINATOR

DRIVE-IN

PRODUCT CODE: P190

MC302-K

4 INDICATOR LED'S

RS232 PROGRAMMING PORT

RS 232 PORT FOR MODBUS OR USER PROGRAMMABLE

CAN PORT FOR TRIO REMOTE I/O, DEVICENET SLAVE, CANOPEN OR USER PROGRAMMABLE

I/O CONNECTIONS

The MC302-K *Motion Coordinator* fits within Kollmorgen Servostar™ Digital Drives to provide an easy to use 1½ axes motion controller with sophisticated motion control features. The module simply clips into the S300/S600 option slot and is powered by the drive.

Based on Trio's latest high-performance 32-bit ARM technology, the MC302-K offers 64MHz performance in a compact package and forms one of a family of "**Drive-In**" *Motion Coordinators*. The MC302-K is manufactured by Trio and can be purchased directly, whilst other "**Drive-In**" products are available in badged format from an increasing number of independent drive manufacturers.
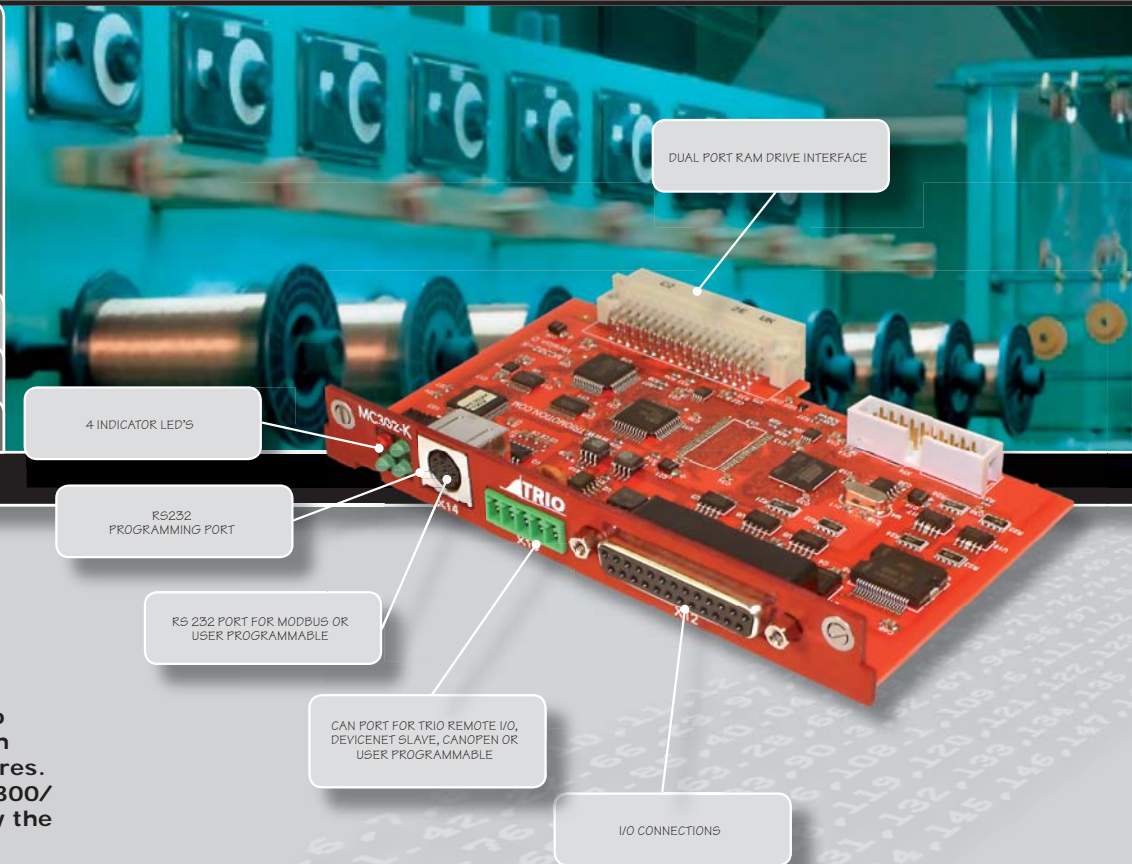
User programs are written in Trio's established multi-tasking BASIC language using the powerful *Motion Perfect* application development software. Storage is accomplished in a 120k byte user program memory.

Complex motion such as cams, gears, linked axes, and interpolation is made easy with Trio's comprehensive BASIC command set. Additional BASIC commands make it easy to setup and control the drive features and parameters.

The MC302-K has 12 opto-isolated digital inputs and 8 opto-isolated digital outputs built-in. In addition users can directly access the digital and analogue I/O provided by the drive.

I/O capability

- 12 inputs and 8 output channels + drive I/O
- Expandable to 256 bi-directional channels and 32 analogue inputs

A wide communications capability is available with a CAN interface for DeviceNet Slave or CANopen and an RS232 port for HMI with Modbus RTU support. Additional I/O can be provided using Trio CAN 8 Analogue input and CAN 16-I/O Modules. The MC302-K has 12 opto-isolated digital inputs and 8 opto-isolated digital outputs built-in. In addition users can directly access the digital and analogue I/O provided by the drive.

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Drive Integration

A simple "plug-in" operation, the MC302-K occupies the Kollmorgen Servostar's™ option slot. The module is closely integrated into the drive via a high speed dual port ram interface. The user is given BASIC keywords to setup and control the drive during operation.

Axis Configuration (fixed)

Axis 0	servo (Servostar)
Axis 1	encoder input (Servostar)
Axis 2	virtual

Multi-tasking

- 3 simultaneous BASIC tasks

BASIC keywords for Drive Interface

DRIVE_READ	DRIVE_RESET
DRIVE_WRITE	DRIVE_ERPOM
DRIVE_CLEAR	DRIVE_HOME
DRIVE_STATUS	DRIVE_INTERFACE

Fieldbus Communication Options

CAN	Trio remote I/O, DeviceNet slave, CANopen or user programmable
RS232	Modbus RTU slave, or user programmable

Part Number	P190
Size	140mm x 95mm x 20mm
Weight	90g
Temperature Range	0-45 degrees Celsius
Power Consumption	From Drive - 120mA @ 5Volts
Maximum Number Of Axes	2 + 1 virtual
Built In Encoder Inputs	1 Connected Via The Drive
Built In Encoder / Stepper (Line Driver) RS422 Bi-directional Port	None
Built in Analogue Outputs	2 @ 16 Bit Via Drive (NOT FOR SERVO CONTROL)
Servo Cycle Time	1000us, 500us, or 250us
Built In Inputs	12 x 24V Opto-isolated + 5 x 24V Opto-Isolated drive inputs
Built In Outputs	8 x 24V Opto-isolated + 2 x 24V Opto-Isolated drive outputs
Built In Bi-directional I/O	None
Built in Analogue Inputs	2 @ 0-10V 16 Bit (Both Via The Drive)
Inputs Functions	Forward Limit / Reverse Limit / Datum / F Hold
Watchdog Relay	N/A
Serial Ports	1 RS232 (Programming) + 1 RS232
CAN Ports	1 @ 1MBAUD max
Daughter board Slots	None
User Memory	120kbytes
Table Memory	8000 values
Multi-tasking	2 Fast Tasks + 1 Normal Task
EMC Compliance	N/A

Overall Dimensions

95mm

19mm

140mm