MTDV4CH-22A4 | DATASHEET

OPTO ENGINEERING

Motion controller for bipolar stepper motors with additional encoder input

KEY ADVANTAGES

Plug and play
Ethernet interface available.

Compact Industrial Design
Rigid and compact design for industrial use.

Wide product range
Available from 1 channel to 4 channels.

Designed for both open loop / close loop
Suitable for wide range of applications.

User-friendly web interface
No software installation is necessary with high configurability.

MTDV series are a compact robust designed motion controllers for bipolar stepper motors with winding currents up to 1.2A working at 24V DC.

SPECIFICATIONS

Electrical specifications

User interface[1]		Ethernet (TCP/IP)
Connectors		1x RJ45 1x USB Type A 2x Terminal blocks 4x DB15HD female
Status LEDS		Ethernet activity LED, RGB LED for each motor status
DC power supply	(V)	24
Max power consumption	(W)	96
Protections		ESD, polarity inversion, overvoltage, undervoltage, output overcurrent, shorted output, open output, overtemperature

Motor parameter

Number of motors		4
Type		Bipolar stepper
RMS winding current	(mA)	20 to 935 (adj)
Peak winding voltage	(V)	24 (PWM)

Encoder Parameter

Number of encoders		4
DC power supply	(V)	5
Type		Linear/rotary, incremental
Output signal		A, B, Z (index)
Encoder interface		RS422

Functions

Control type	Closed-loop, open-loop
Motion mode	Positioning mode (relative and absolute) with 2 stage velocity ramp
Special Features[2]	Advanced motor drive with StealthChop™ and 256x SpreadCycle™, extremely silent operation, adjustable RUN and HOLD currents for optimized power consumption, advanced positioning control in closed-loop operation, motor homing based on encoder reference or limit switch, reduced EMI noise
Configuration software	Integrated web interface (Ethernet), Ethernet DLL library (USB and RS485 to be developed upon request)
Automatic position saving	Yes
Non volatile memory	Yes

Mechanical specifications

Width	(mm)	94.0
Length[3]	(mm)	80.0
Height[3]	(mm)	84.0
Mass	(g)	530
Mounting		DIN rail

[1] USB and RS485 interface could be implemented upon request.
[2] StealthChop™ and SpreadCycle™ are property of their respective owners.
[3] Excluding DIN rail mount

Environment Specification

Operating temperature	(°C)	10-40
Storage temperature	(°C)	0-50
Operating relative humidity	(%)	20-85, non condensing
IP rating		IP20
Installation		Indoor use only

RECOMMENDED CABLES

Opto Engineering suggesting using the following cables:

- **CBMT002**, 15 wires cable, DB15HD Male to DB15HD Female connector, 2 m

- **CBETH003**, Ethernet cable, CAT6, industrial level, high flexible cable with screw, 5 m

COMPATIBLE PRODUCTS

Full list of compatible products available *here*.

OPTICS	LIGHTING	CAMERAS	SOFTWARE	ACCESSORIES

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