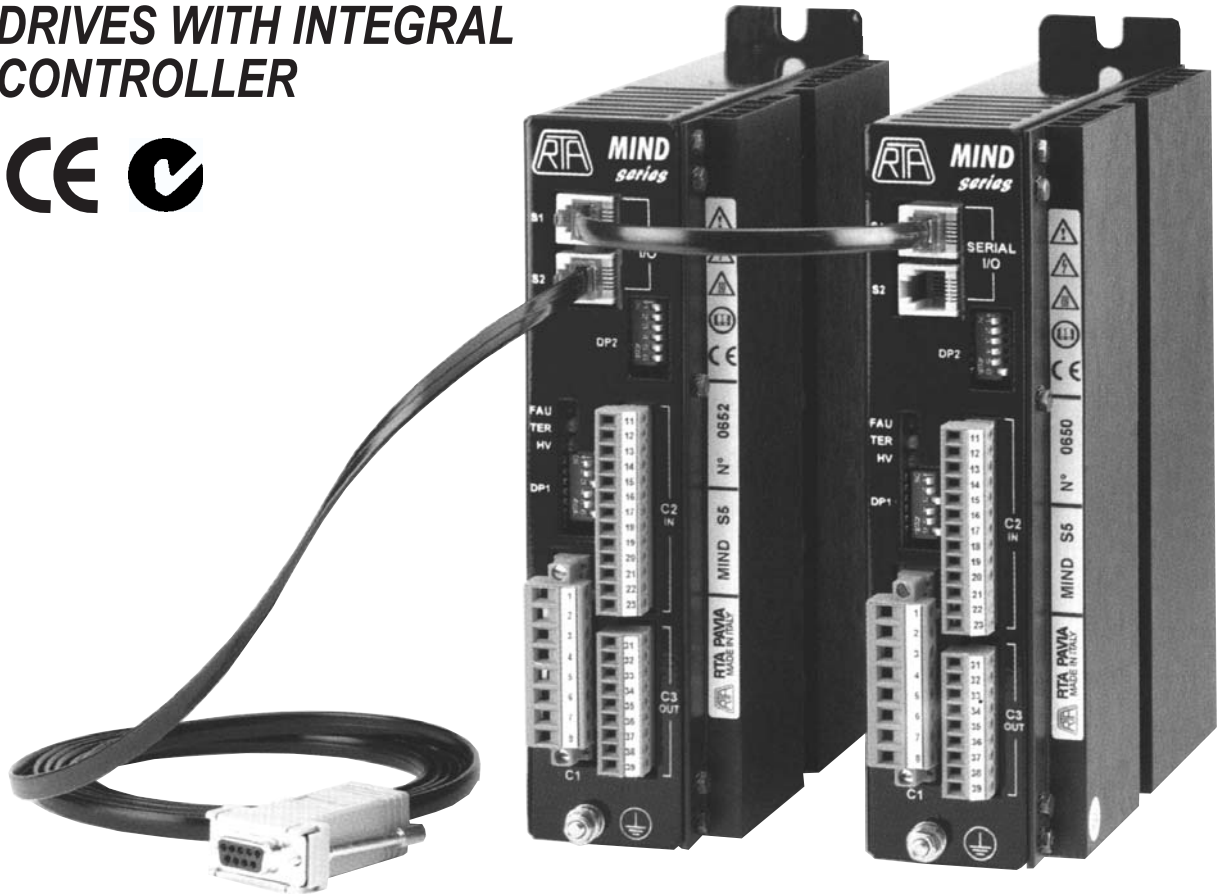




# MIND-T SERIES STEPPING MOTOR DRIVES

**DRIVES WITH INTEGRAL  
CONTROLLER**



**High power upto 12A @ 180V for high speed performance.**

**DC power supply. Just add mains transformer, rectifier & capacitor.**

**400 to 4000 step/rev resolution for smooth running at low speeds.**

**True stand alone operation.**

**Once programmed, no need for P.L.C. or computer.**

**Programmable using software available for PC.**

**Stores upto 16 motion programs.**

The MIND-T series of stepper motor drives has the same specifications as the MIND-B series except that they have a built in memory for storing upto 16 programs. Control can be from a PC or PLC with serial output using basic ASCII commands. Upto 16 motion programs can also be stored in the drive and selected and executed using hardware inputs without a computer or PLC connected. Upto 16 drives can be daisy chained and individually addressed.

It is also possible to start a program by sending commands via RS232 or RS485 ports. A datum switch input is provided and programming can be in either absolute or incremental coordinates. Protection against motor short circuit is also included. The MIND-T drive is ideally suited to OEMs for motion control applications such as large positioning systems, packaging machines and pick and place machines.

## SPECIFICATIONS

### LOGIC INPUTS

Opto isolated (OFF = 0 - 4 V or open, ON = 5 - 24V)  
 Select (4 off, for previously stored programs)  
 Start (for previously stored programs)  
 Emergency Stop  
 Free Run stop  
 Aux Inputs (2 off)  
 Datum input

### LOGIC OUTPUTS

Opto isolated (45V @ 10mA sink open collector)  
 Drive fault  
 Busy  
 Aux outputs (2 off)  
 Slave step and direction outputs (5V TTL)

### RESOLUTION

400, 800, 1600, 3200,  
 500, 1000, 2000 & 4000 steps/rev

### RAMP TIMES

16msec to 1440msec (selectable from 42 values)

### SPEEDS

3kHz to 24kHz ramped (selectable from 21 values)  
 200Hz to 3kHz not ramped (selectable 28 values)

### OPERATING TEMPERATURE

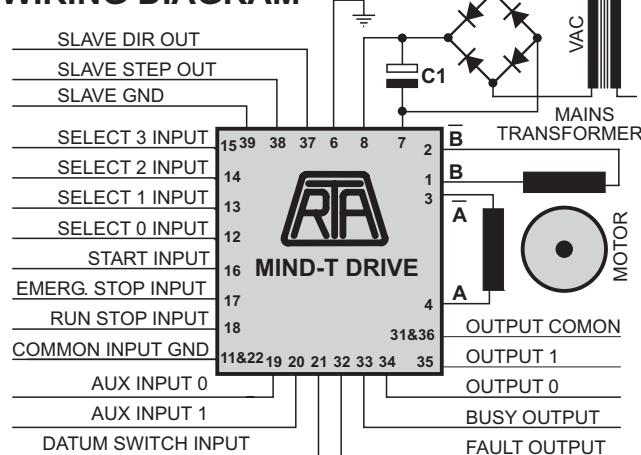
5-40°C  
 (Forced cooling may be required in cabinet)

### WEIGHT

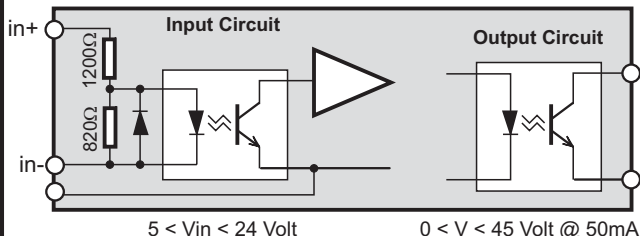
1.0kg

SPECIFICATIONS	MIND-T2	MIND-T3	MIND-T4	MIND-T5
SUPPLY RANGE (VDC)	55 - 85	55 - 85	95 - 140	120 - 180
TRANSFORMER (VAC)	39 - 60	39 - 60	67 - 99	85 - 127
SUPPLY (VDC) (maximum)	102	102	170	220
SUPPLY (VDC) (minimum)	42	42	75	85
MOTOR CURRENT (A) (maximum)	4.0	10.0	8.0	12.0
MOTOR CURRENT (A) (minimum)	2.3	5.7	4.55	6.7
CURRENT STEPS (A)	0.57	1.4	1.15	1.3

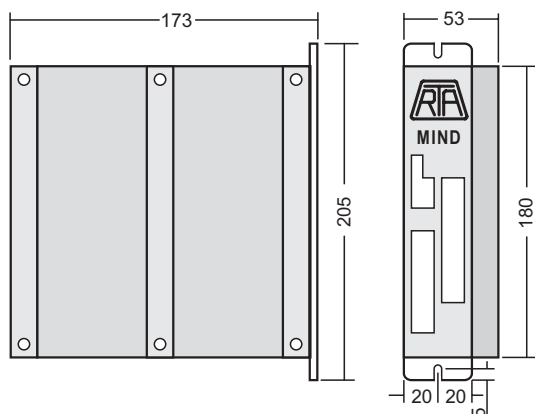
## WIRING DIAGRAM



## LOGIC SIGNALS



## DIMENSIONS (in mm)



## CONNECTIONS

- |       |                     |  |
|-------|---------------------|--|
| 1     | <b>Motor</b>        | Motor winding B (2B or B+)                       |
| 2     | <b>Motor</b>        | Motor winding B (2A or B-)                       |
| 3     | <b>Motor</b>        | Motor winding A (1B or A-)                       |
| 4     | <b>Motor</b>        | Motor winding A (1A or A+)                       |
| 5     | <b>Motor shield</b> | Motor cable shield                               |
| 6     | <b>Earth</b>        | Drive Ground                                     |
| 7     | <b>-Supply</b>      | - DC Power from rectifier and capacitor.         |
| 8     | <b>+Supply</b>      | + DC Power from rectifier and capacitor.         |
| 11,22 | <b>IN COM</b>       | Common for input signals.                        |
| 12    | <b>SEL0</b>         | Bit 1 of input select.                           |
| 13    | <b>SEL1</b>         | Bit 2 of input select.                           |
| 14    | <b>SEL2</b>         | Bit 3 of input select.                           |
| 15    | <b>SEL3</b>         | Bit 4 of input select.                           |
| 16    | <b>START</b>        | Switch on to start a previously stored program.  |
| 17    | <b>ESTOP</b>        | Switch on to stop program execution immediately. |
| 18    | <b>F RUN STOP</b>   | Switch on to stop a free run command.            |
| 19    | <b>I0</b>           | User definable input. Switch on to activate.     |
| 20    | <b>I1</b>           | User definable input. Switch on to activate.     |
| 21    | <b>PROX</b>         | Datum switch input.                              |
| 22    | <b>DRIVE GND</b>    | Ground for drive (connected to pin 7).           |
| 31,36 | <b>OUT COM</b>      | Common for output signals.                       |
| 32    | <b>FAULT</b>        | High when drive working OK.                      |
| 33    | <b>BUSY</b>         | High when drive is executing an instruction.     |
| 34    | <b>O0</b>           | User definable output.                           |
| 35    | <b>O1</b>           | User definable output.                           |
| 37    | <b>Dir</b>          | Slave DIRECTION output.                          |
| 38    | <b>Step</b>         | Slave STEP output                                |
| 39    | <b>DRIVE GND</b>    | Ground for drive (connected to pin 7)            |

Motors, transformers, controllers, motion control software and motor couplings also available on request.  
 Continuous development may necessitate changes in models and specifications without notice.

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