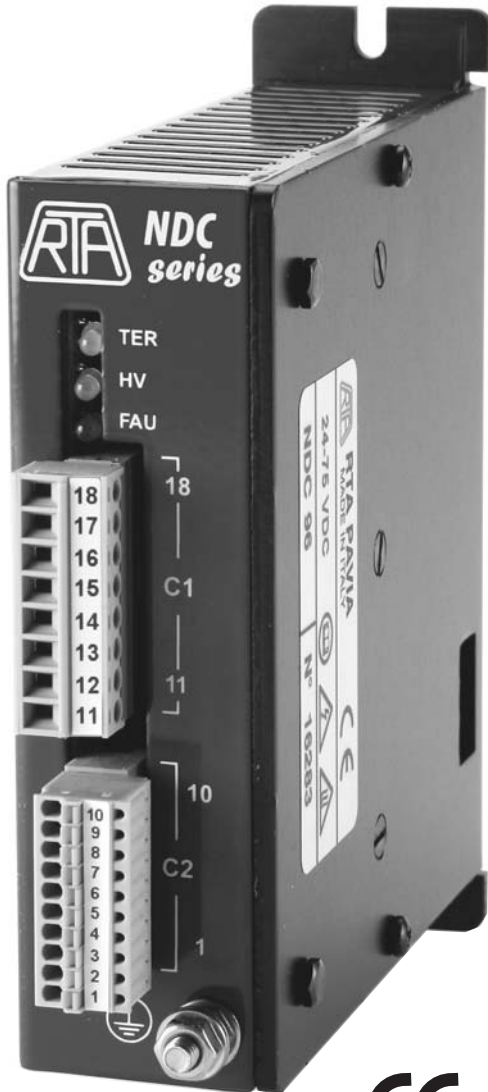




NDC94 & NDC96 STEPPING MOTOR DRIVES

LOW COST PACKAGED DRIVES DC SUPPLY



Suitable for 17, 23, 34 frame motors.

DC unregulated power supply.
(24 to 75V)

Upto 75V @ 6 Amp.

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

Protection from motor short,
overtemperature and overvoltage.

Built in ramped oscillator for
manual RUN control.

Small size, high packing density.

Suitable for two phase motors,
4, 6 or 8 leads

LEDs for motor phase, overtemp,
overvoltage and motor short.

Opto isolated inputs & outputs.

The NDC 94 and NDC 96 are packaged versions of the NDC04 and NDC06. They are housed in metal enclosures for easy mounting in electrical cabinets. They are ideal for low to medium power single and multi axis motion control applications where high speed and resolution are required. They are DC powered and many drives can be powered by the one supply. The opto isolated step and direction inputs are compatible with 5 or 12V voltage sourcing or current sinking indexers.

Two models are available, the NDC94 for lower current and the NDC96 higher current applications. A built in ramped oscillator is useful for manual control of motor speeds from 14 to 450 rpm by dip switches. Protection against motor short circuit and incorrect power supply voltage are also included. Electronic damping is included to reduce mechanical vibration and audible noise at low speeds. Power supply can be as low as 24 VDC which is useful for portable machine applications.

SPECIFICATIONS

LOGIC INPUTS

Opto isolated (OFF = < 3.5 V, ON = 3.5 to 13V)
 Step or RUN enable
 Direction
 Current off (De-energise)
 Aux (Step x 4)

MAXIMUM STEP FREQUENCY

60kHz

LOGIC OUTPUTS

Opto isolated (45V @ 50mA sink open collector)
 Drive fault

RESOLUTION

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

STANDBY CURRENT

automatic at 65%

MOTOR CURRENT

8 settings by DIP switch

INTERNAL OSCILLATOR

14 to 450 rpm (16 settings, some with microramping)

OPERATING TEMPERATURE

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

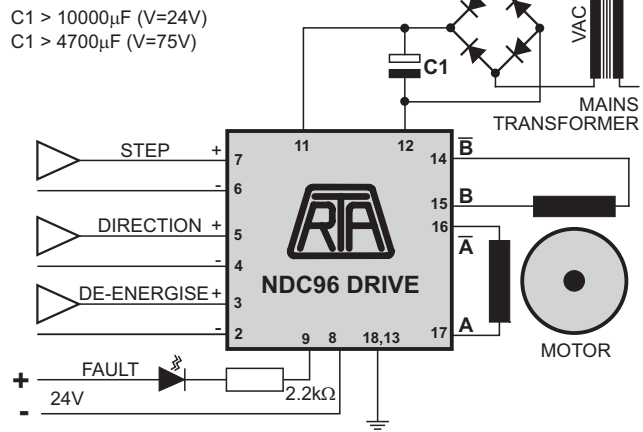
WEIGHT

0.5 kg.

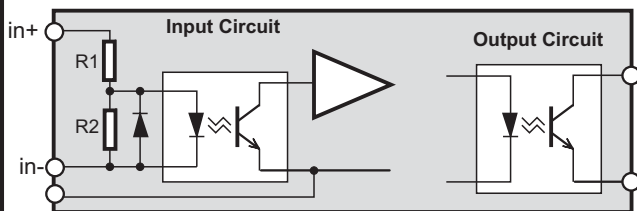
SPECIFICATIONS

	NDC94	NDC96
SUPPLY (VDC) (maximum)	75	75
SUPPLY (VDC) (minimum)	24	24
MOTOR INDUCTANCE (maximum)	12	12
MOTOR INDUCTANCE (minimum)	0.8	1.2
MOTOR CURRENT (A) (maximum)	2.0	6.0
MOTOR CURRENT (A) (minimum)	0.6	1.9

WIRING DIAGRAM

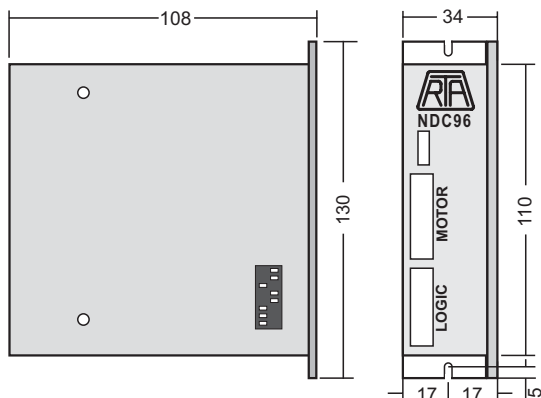


LOGIC SIGNALS



	STEP	DIRECTION	DE-ENERGISE
R1	270Ω	680Ω	680Ω
R2	470Ω	1000Ω	1000Ω

DIMENSIONS (in mm)



CONNECTIONS

- 18 **Motor shield** Motor cable shield
- 15 **Motor** Motor winding B (2B or B+)
- 14 **Motor** Motor winding B (2A or B-)
- 16 **Motor** Motor winding A (1B or A-)
- 17 **Motor** Motor winding A (1A or A+)
- 13 **Earth** Drive Ground
- 12 **Supply** - DC Power supply.
- 11 **Supply** + DC Power supply.
- 9 **+Drive Fault** Normally shorted when drive is in working state but becomes open circuit when drive has shut down due to protection circuits.
- 8 **-Drive Fault**
- 7 **+Step/enable** The motor steps once for an OFF-ON transition of this signal. Ideal duty cycle 50%.
- 6 **-Step/enable**
- 5 **+Direction** When this signal is ON the motor direction is reversed. This signal must be on for at least 100µs before STEP input is received and must remain on at least 100µs after the last step is received.
- 4 **-Direction**
- 3 **+De-energise** When this signal is ON the drive is active.
- 2 **-De-energise** When this signal is OFF the drive is inhibited so motor current (and holding torque) is zero.

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

AUTOMATED MOTION SYSTEMS PTY.LTD.

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