

X-MIND K *Series Drives*

GENERAL DESCRIPTION

X-MIND K is the name of a series of *ministep* bipolar chopper drives with an on-board programmable motion controller that can be used for the interfacing with a central control system or as an independent unit.

X-MIND K series drives are housed in a metallic box, 180 x 173 x 53 mm format, suitable for wall mounting. They can be connected directly to the main AC supply (110 to 230 V) normally avoiding the need for a transformer. The wide supply range eases drive usage in different applications and countries.

R.T.A. experience, together with a thorough design both of hardware and software, has led to a product offering high reliability, premium performances, great ease of use at competitive costs.

A broad range of available current/voltage values, specific instructions set and the availability of programmable inputs and outputs optimize the use of **X-MIND K** series drives with a wide variety of stepping motors and in a large number of applications.



Motion Control Systems

R.T.A. STEPPING MOTOR DRIVES catalogue

TECHNICAL FEATURES

- ▶ Operation at 400, 800, 1600, 3200 and 500, 1000, 2000, 4000 steps/revolution set by means of serial line.
- ▶ Electronic resonance damping circuit to ensure acoustic noise and mechanical vibrations reduction at low and medium speed.
- ▶ Wide range of operating voltages and motor phase currents setting. Up to 4 possible equidistant values, between $I_{NF \text{ min.}}$ and $I_{NF \text{ max.}}$, can be set by means of a serial line.
- ▶ Communication through RS485 serial line; up to 48 drives can be connected on a single serial line. One instruction can be broadcasted to all drives.
- ▶ Various types of available instructions, as for example: indexed run with ramp, free run with ramp, indexed run without ramp, run with a programmable braking distance, zero research. Space can be programmed in relative or absolute mode (linear or circular).
- ▶ Number of steps for indexed ramp up to $\pm 8.338.607$ in relative or absolute mode, speed from 1 to 24.000 Hz in standard and increased resolution, ramp times from 16 to 1440 msec.
- ▶ Availability of instructions to develop motion programs as, for example: conditional jump, time delay, program block and recovery, I/O management, FOR NEXT loop.
- ▶ Possibility to control the execution of 16 previously stored motion programs through hardware inputs. Accordingly, the drive can be used in stand-alone applications, without serial connection.
- ▶ Possibility to control all programs previously stored or single instructions through the serial line.
- ▶ 11 inputs and 6 outputs, all optically insulated. Among them 3 inputs and 4 outputs are freely programmable. Output O3 can be set to switch at a programmed motor position.
- ▶ Memory of 128 instructions kept also at drive switched-off and three run time instructions.
- ▶ A utility working in Windows® is available in order to ease motion programs development by the user.

Models	V _{AC} range	I _{NF} min.	I _{NF} max.	Dimensions
	(VOLT)	(AMP)	(AMP)	(mm.)
X-MIND K4	110 to 230 +/- 15%	2.3	4.0	180x173x53
X-MIND K6	110 to 230 +/- 15%	3.4	6.0	180x173x53

