Tinaxis-L-BLDC-150-sensored   BLDC driver 9-30V, 5A, digital

Supply and command connector
1 Supply –
2 Supply +
3 4.5V out (regulated)
4 OUT1 / Tacho
5 OUT2 / error
6 IN3 / Enable
7 IN2 / Direction
8 IN1 / Speed

Motor connector
1 HALL – (gnd)
2 HALL A
3 HALL B
4 HALL C
5 HALL + 5V, max 30mA**
6 Motor phase U
7 Motor phase V
8 Motor phase W

Motor connector
Supply and command connector
~real size
Setup connector (RS232/USB through adapter cable P000-034 or P000-016)

BLDC motor driver, with digital speed control, industrial grade

Typical use: fans, pumps, mixers, micro machining
Compact size, only **40x35mm**, convenient terminal connectors

	Specification	unit	value
a) General			
1	Motor types		BLDC with HALL sensor
2	Microcomputer control, settable using serial connection		
3	Remotely controllable using UART TTL at 57600 bps or Inputs/outputs		
4	Special factory program available, please contact manufacturer		
b) Electrical specifications			
5	Power Supply voltage	V	9-30V
6	Output current (motor)	A	4 continuous / 5 peak, limited at 5A
7	Input current (no load)	A	0.02 typical, + Hall sensor current
8	PWM Frequency	kHz	25 (preliminary data)
9	Motor speed	RPM	0-100'000 (typical)
c) Inputs Outputs (I/O)			
10	HALL sensor inputs: integrated pull-up to 5V, available current on 5V supply: max 20 to 50mA: (table 1**) If Supply voltage= 12V: 50mA If Supply voltage= 24V: 30mA If Supply voltage= 32V: 20mA		
11	IN1, analog, digital filter 500Hz, speed reference (pulled down with ~12kOhm), 0-10V (or ±10V on request)		
12	IN2, digital, rotation direction (pulled down with ~12kOhm)		
13	IN3, digital, Enable motor power, (pulled down with ~12kOhm)		
14	OUT1, digital tacho pulses, 1 pulse per electrical revolution, NPN open collector to GND, max 30mA 24V		
15	OUT2, error, NPN open collector to GND, max 30mA 24V. Not conducting when no error		
16	4.5V regulated output (created by the internal 5V regulator and forward diode). Total current of this pin and Hall sensor together should not exceed table 1**		
d) Mechanical characteristics			
17	Temperature, recommended (ambient / board)	°C	0 to 65 / 85
18	Integrated protections: reversed polarity, temperature, motor over-current, ESD in I/O, moderate over-voltage, under-voltage		
19	Without housing, I/O connectors with screws, pitch 3.5mm for wires section from 0.25 to 1.6mm²		

	Designation	Article nr.
1	Tinaxis-L BLDC150 sensored	P016-E020
	Special version on request (housing, shape, I/O, power, larger display, keyboard, USB, ...)	
		preferred version

WARNING: Do not supply externally the outputs 5V and hall GND. Use these outputs only to supply local accessories such as detectors, switches, lamps, sound generators ... Do not connect the different GND together.
Required tools: USB (P000-034) or RS232 (P000-016), soft PC "Dynamic Motion programming suite" (free download)
Required documentation: Tinaxis-L user manual