

### Stepper motor Driver / Kann-K97a Twin motor driver PCB

#### KannMOTION series

#### **Product description**

- Stepper motor driver for bipolar motors
- Drives 2x 17H2034-120 (twin motor driver)
- Direct Speed control
- 3 digit Speed display
- ON/OFF switch

#### Interfaces

- 24VDC power supply jack
- Potentiometer (without nob)
- 6.35mm mono jack
- 3 digit 7 segment display
- 2x 4pin motor connector
- Adlos ComWatch Update and Diagnostic interface

#### Benefits / Software

- Synchrone speed of the two motors
- Stop at starting postion or starting position +180° position
- Variable speed
- Adjustable speed with potentiometer
- Display speed or Error code
- On/Off with knob and mono jack / work in parallel

## **Technical data**

Rated supply voltage	24 VDC / 15W	
Power Supply	GE 12I24-P1J / 24VDC / 15W	
Ambient temperature range	0° to +40°C	

## **Ordering information**

Part number	Description		
100 517.000	Kann-K97a Twin motor driver PCB,	1-DDK, 3-Digit Display 24VDC	

Matching parts		
201 018.000	motor	17H2034-120-4A
100 550.000	Update & diagnostic cable	Cable: K97a / USB Programming cable
100 519.001	Connection Extension	PCB: M8-JST 4-Pol Anschluss
100 520.000	Connection Cable extension	Cable: M8-4 / JST-EHR-4P Bridge
201 040.000	ACDC Supply	Netzteil ACDC (90264VAC) (24V 15W)
201 041.000	International Adapter	Netzteil ACDC GE Stecker Adapter MIX





# **Dimensions (in mm)**





# **Connection terminals**



## 1 DC-Supply Jack

Pin	Description	Nominal	Absolute max	Comment
inner	GND	-	-	Reference
outer	VSupply	24 VDC	28 V	Supply motor drive

## 2 Foot pedal Mono Jack

Connect a NC-switch (normaly closed switch), to not feed power in

### **3** Motor connections

Pin	Description	Nominal	Absolute max	Comment	
1	Phase Ā			Motor winding A	
2	Phase A				
3	Phase B		Motor winding B		
4	Phase B				

## 4 ComWatch connection zone

Connect here Comwatch Interface cable 100550 for firmware update or online diagnastics



# **ComWatch Communication Tool**



ComWatch is a helping tool for engineers and technicians to explore device specific parametes, read out tracking data and settings and doing firmware updates.

The software is as it is, and in principle for free for adlos customers, the software is not made for a broad range of standard users, it's made in principle for technical engineers which are used in working w. windows based software and have some understanding of technical things.

### http://kannmotion.adlos.com/download/comwatchtool/ComWatchSetup.zip

## **Error Codes**

Display	Bit	Description	Reset
E-1	2	Input Voltage to Low	when Input ok
E-2	0	Overcurrent detected (on motor output)	Retry after <5s>
E-3	1	Overtemperature error (driver)	when temperature ok
E-4	3	Timeout, State Watchdog Timeout	Retry after <5s>
E-5	4	Driver Init-Error	Retry after <5s>

### **Proper use**



#### Do not connect or disconnect motor during operation!

Motor cable and motor inductivity might lead to voltage spikes when the motor is disconnected / connected while energized. These voltage spikes might exceed voltage limits of the driver MOSFETs and might permanently damage them. Therefore, always disconnect power supply before connecting / disconnecting the motor



#### Keep the power supply voltage below the upper limit!

Otherwise the driver electronics will seriously be damaged! Especially, when the selected operating voltage is near the upper limit a regulated power supply is highly recommended.

Check your mechanical system, is it able to drive the motor, avoid motor being used as generator

Every motor could be operated as an voltage generator, so take care about generated voltage, this might damage your electronics by overvoltage. Add some voltage limiter units to keep supply voltage in range.

# **Contact information**

Adlos AG Föhrenweg 14 FL-9496 Balzers

Thomas Vogt <u>Thomas.Vogt@adlos.com</u> Tel: +423 263 63 63

Countries: CH, A, LI, SK, IT <u>www.adlos.com</u>