

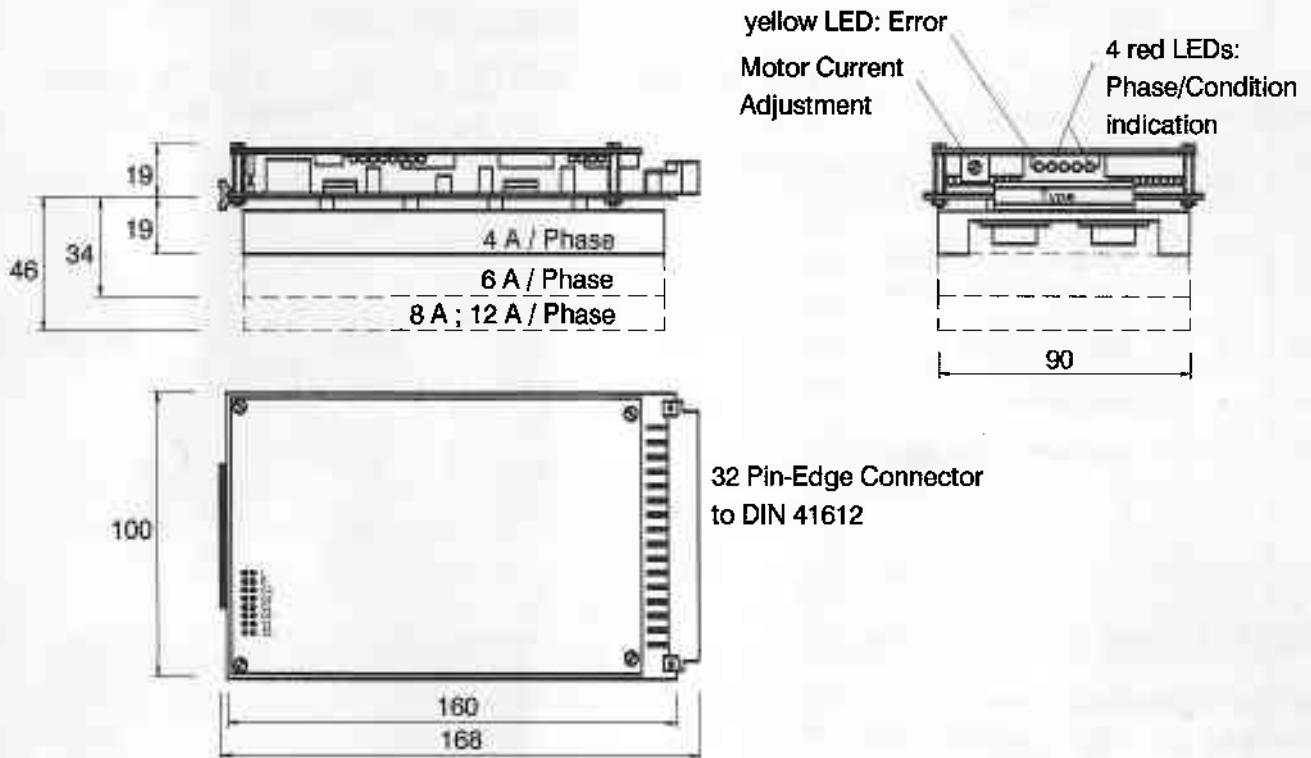


Zebotronics® Stepping Motors

A Product of Wild & Grabmaier Feinmechanik und Elektronik KG



Series P01, P02, P03



Micro Stepping Features of Series P01, P02, P03:

- Resolutions adjustable and extern switchable.
- Excellent truth micro stepping to rotational speeds.
- Electrical and mechanically **compatible** to standard Zebotronics power amplifier drives.
- Short circuit protected.
- Temperature protected.
- Voltage range from 24 VDC - 120 VDC.
- Current range from 0 A / Ph. - 12 A / Ph.
- Symetrical torques in all pre-selected resolutions
- Series P01: resolution till 10000 steps/revolution
- Series P02: resolution till 12800 steps/revolution
- Series P03: resolution till 8000 steps/revolution

Adjustments

Various drive condition pre-settings can be achieved on the soldering markings of the logic board back side. The motor current setting ensures as by all Zebotronics motion control amplifiers via the potentiometer on the front side.

The red LED's indicates the energized phase condition.

The yellow LED indicates appearing error.

Marking	Stands for	Standard setting
R	open: automatic current reduction 50 % at stand still closed: no current reduction.	open
L	open: HIGH - active closed: LOW - active	open
S0	not connected	
S1	not connected	
C0 - C3	step angle adjustment (see table)	open

HIGH - Active (Marking »L« open)

All input signals are activated when a driving voltage is connected. The rising side of the pulse is executed.

The standard board setting is HIGH-active.

LOW - Active (Marking »L« closed)

Ripping-up the soldering bridge at the marking »L« effects the change of polarity of the inputs.

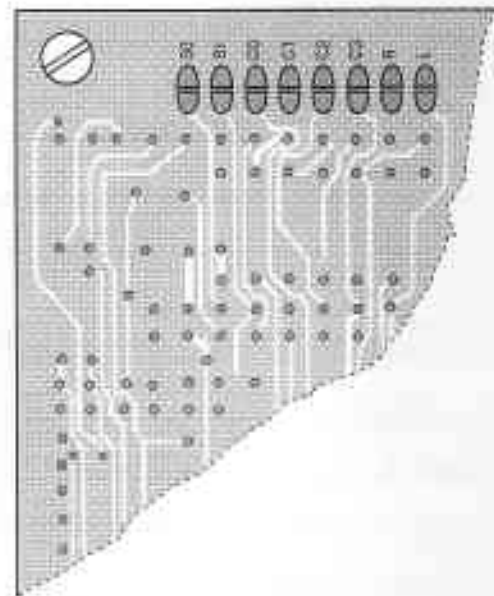
To connect to chassis or frame, inputs are activated.

The falling edge of the pulse is executed.

Automatic Current Reduction (Marking »R« open)

The adjustable current on the potentiometer is ment for rated duty. Is the marking »R« open, automatic current reduction is effected at motor stand-still, till half of the setted current. With the first arriving pulse the current will be set to it's rated current. 20 ms after the last pulse the phase current drops back till half the setted current (stand-still). When using the reset signal input, the current reduction is not activated.

Standard supplied the marking »R« is open, the current reduction is activated.

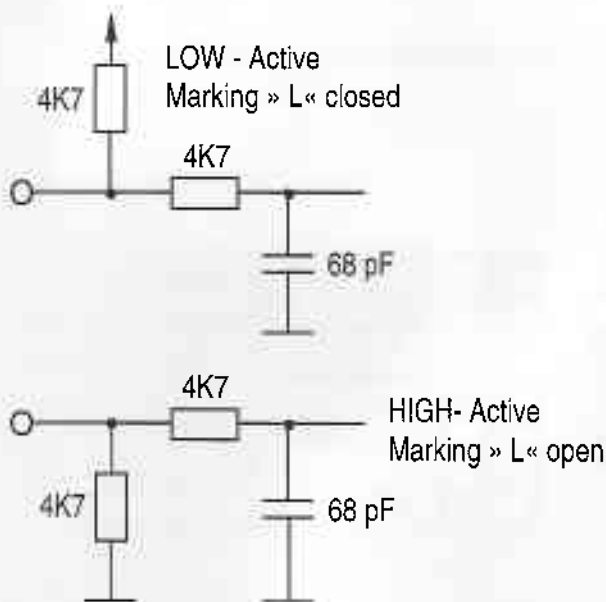


Step Angle adjustment on the Board

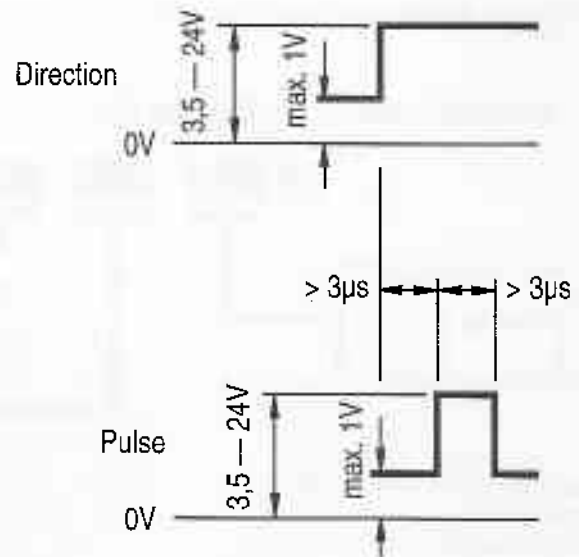
Using the edged markings C0, C1, C2 and C3 various step angles can be pre-selected. They are on pin a2 externally switchable. During motion switching to any other selected stepping mode is possible within the motor start-stop frequency.

Resolution extern switchable Steps / Revolution						Marking for Step Angle Adjustment				
Series SE P01 pin a2		Series SE P02 pin a2		Series SE P03 pin a2		X = marking closed else = marking open				
not active	active	not active	active	not active	active	C3	C2	C1	C0	
2500	500	3200	800		200					
	200		200	2000	400				X	
5000	250	6400	400		500			X		
	400		800				X		X	
	500		1280		1000		X			
	1000		1600	200		X		X		
	2000		2560	400		X	X	X		
	2500		3200	4000	800		X	X	X	
	200		200		1000	X				
10000	250	12800	400	8000	2000	X			X	
	400		800		200	X		X		
	500		1280		400	X		X	X	
	1000		1600		800	X	X			
	2000		2560		1600	X	X		X	
	2500		3200		2000	X	X	X	X	
			6400		4000	X	X	X	X	X

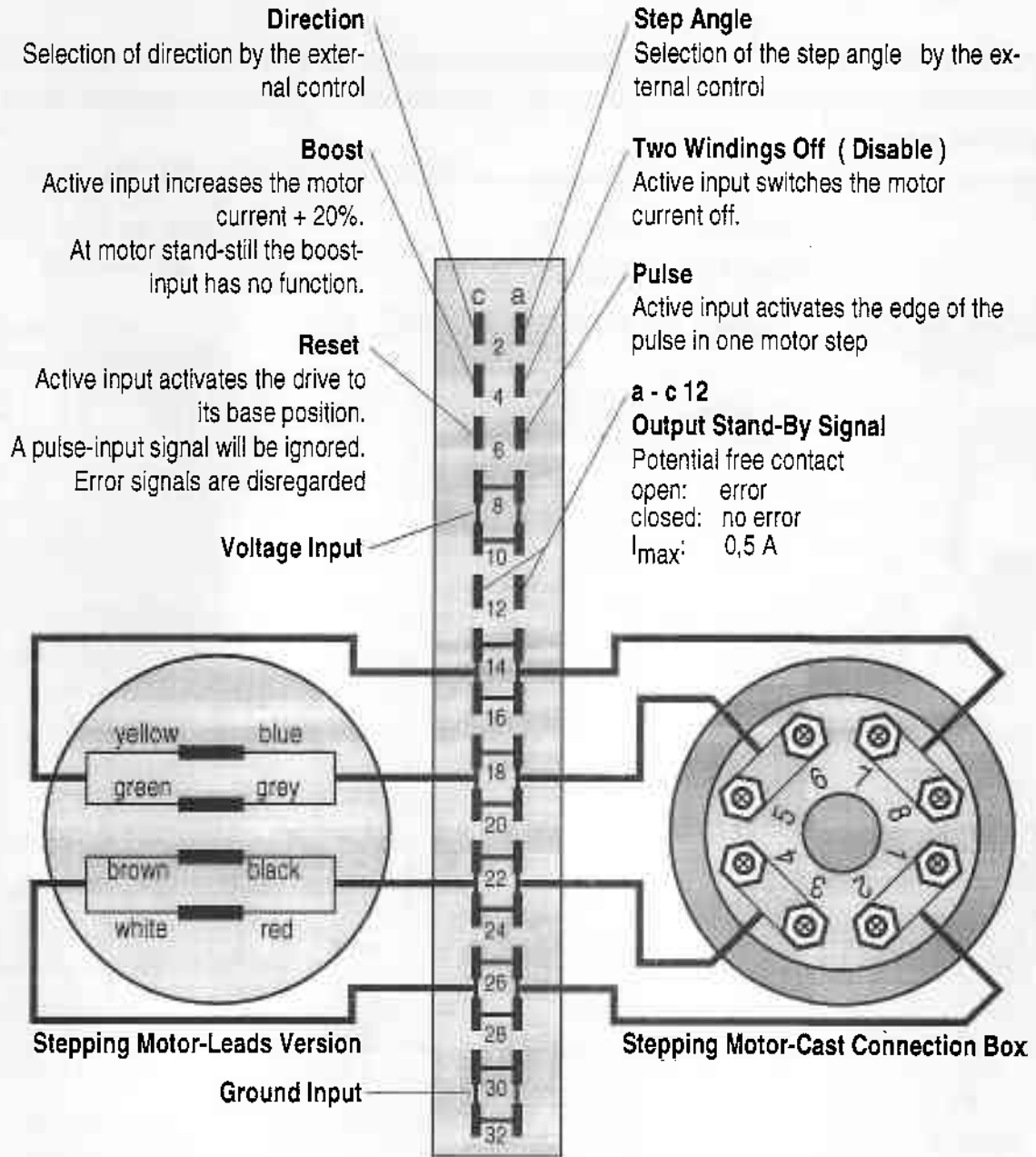
Input Wiring



Input Signals



Pin Connection



All non used inputs may stay open, there is no need to connect them to external potential.

Available Types: Example SE P01.06.120

