

## ■ Closed loop positioning controller with encoder input, SMC147-S



### Technical data

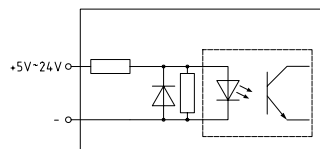
<b>Operating voltage:</b>	DC 24 to 48 V
<b>Phase current:</b>	Nominal current 7.5A, adjustable to max. 11.25 A/phase
<b>Interface:</b>	RS485, CAN
<b>Operating mode:</b>	Position, speed, flag position, clock direction, analog, joystick CANOPEN: Profile position; Homing mode; Velocity mode
<b>Step resolution:</b>	1/1, 1/2, 1/4, 1/5, 1/8, 1/10, 1/32, adaptive (1/128)
<b>Step frequency:</b>	0 to 50kHz in the clock/direction mode, 0 to 25 kHz in all other modes
<b>Inputs:</b>	6 optocoupler inputs: (5V to 24 V)
<b>Outputs:</b>	3 transistor outputs (open collector) 1 output for brake mechanism
<b>Position monitoring:</b>	Automatic error correction up to 0.9°
<b>Current drop:</b>	Adjustable 0- 100%
<b>Protection circuit:</b>	Overvoltage, undervoltage and heatsink temperature > 80 °C
<b>Temperature range:</b>	0 to + 40°C

\* Phoenix connectors are included in the delivery.

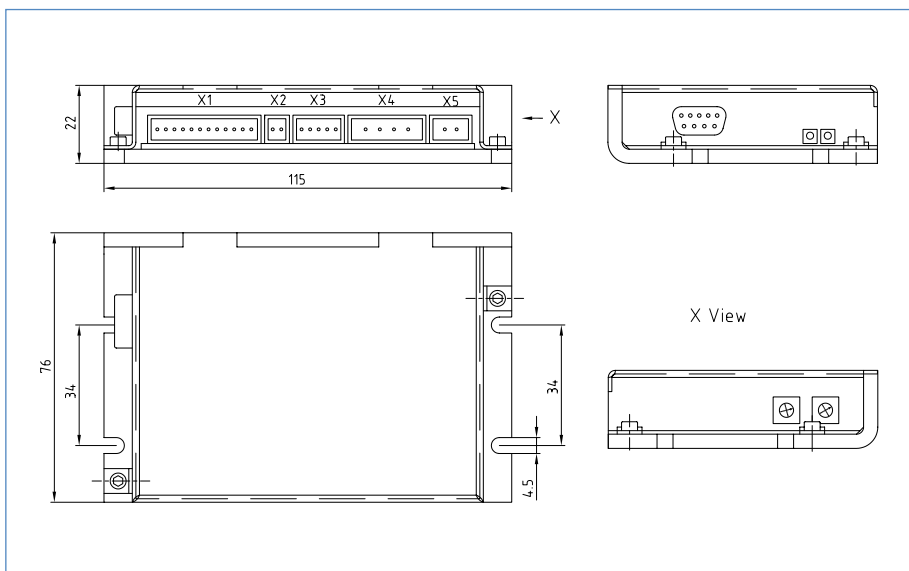
**!** Note: A charging capacitor of at least 4,700  $\mu$ F (Z-K4700/50) **must** be provided on the supply voltage so that the admissible voltage is not exceeded during the braking process.

### Input circuits

#### Optocoupler



### Outline drawing (mm)



### Inputs/Outputs (X1)

Pin	Function
1	Input1
2	Input2
3	Input3
4	Input4
5	Input5
6	Input6
7	Signal GND
8	Output 1
9	Output 2
10	Output 3
11	Analogue In
12	GND

### Brake (X2)

Pin	Function
1	Brake connection:
2	GND

### Encoder (X3)

Pin	Function
1	+5V
2	CH-B
3	CH-A
4	INDEX
5	GND

### Motor connection (X4)

Pin	Function
1	Motor coil A
2	Motor coil A\
3	Motor coil B\
4	Motor coil B

### Supply (X5)

Pin	Function
1	UB24-48V
2	GND

### SMC147-S-2: CAN (X6)

Pin	Function
1	NC
2	CAN low (CAN-)
3	CAN Ground (internally connected with pin 6)
4	NC
5	Shield
6	CAN Ground (internally connected with pin 3)
7	CAN high (CAN+)
8	NC
9	Supply Vcc to 30V (used for safety feature)

### Order number

**SMC147-S-**  
 2= RS485  
 3= CANOPEN