Closed loop motor controller with encoder input, SMCI33

Inputs/outputs (X1)
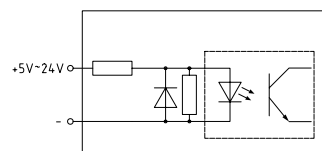
Pin	Function
1	Input1
2	Input2
3	Input3
4	Input4
5	Input5
6	Input6
7	Com
8	Output 1
9	Output 2
10	Output 3
11	Analog In
12	GND

Technical data

Operating voltage:	12 to 48 V DC
Phase current:	Nominal value 2 A, can be set up to a max. 3 A / phase
Interface:	RS485 or USB
Operating type:	Position, speed, flag position, cycle direction, analog, joystick
Operating mode:	1/1, 1/2, 1/4, 1/5, 1/8, 1/10, 1/32, 1/64, adaptive (1/128)
Step frequency:	0 to 50 kHz in cycle/direction mode, 0 to 25 kHz in all other modes
Inputs:	6 opto-coupler inputs (5 to 24 V)
Outputs:	3 open collectors, 30 V / 30 mA max.
Position monitoring:	Automatic error correction up to 0.9°
Current reduction:	can be set 0 to 100%
Protective circuit:	Overvoltage, undervoltage and heat sink temperature > 80 °C
Temperature range:	0 to +40 °C

* Phoenix connectors are included in the delivery.

Encoder (X2)

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

Motor connection (X3)

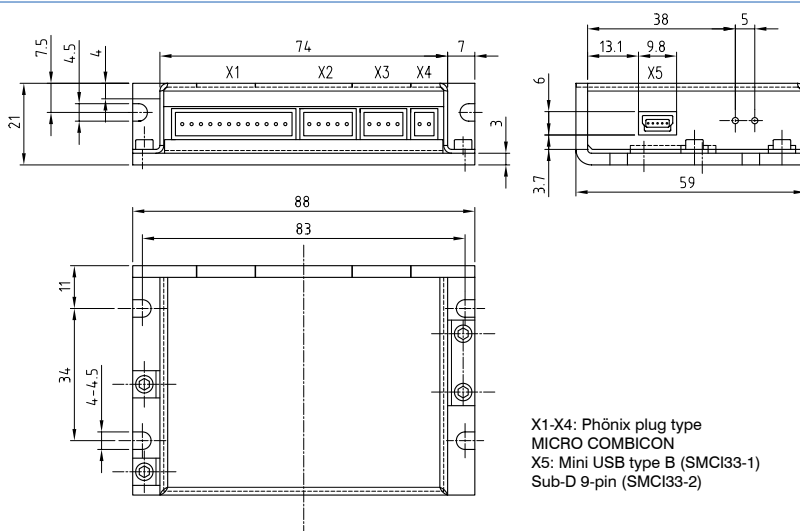| Pin	Function
1	Motor coil A
2	Motor coil A\
3	Motor coil B\
4	Motor coil B

⚠ Caution: Always use a back-up capacitor for the operating voltage of the control system. This is to be placed as close as possible to the control system. Control systems up to 4 A require a 4700µF capacitor, and control systems up to 10 A require a 10,000µF capacitor. Otherwise there is a danger of destruction of the control system.

Input circuits

Optocoupler

+5V~24V

Supply (X4)

Pin	Function
1	UB24-48V
2	GND

SMCI33-2: RS485 (X5)

Pin	Function
1	NC
2	RX+
3	+5 V
4	TX+
5	N.C.
6	N.C.
7	RX-
8	GND
9	TX-

SMCI33-1: USB (X5)
USB standard

Outline drawing (mm)

X1-X4: Phönix plug type
MICRO COMBICON
X5: Mini USB type B (SMCI33-1)
Sub-D 9-pin (SMCI33-2)

Order identifier

SMCI33 - ◯
1= USB
2= RS485