STR2-nano microstepping motor drive

STR2-nano microstepping motor drive delivers advanced features for open loop motion control in an extremely compact package measuring just 34 x 35 x 16 mm (length x width x height). With selectable current control from 0.3 to 2.2 Amps/Phase and with a 24 VDC supply voltage, the STR2-nano is aimed at OEM machine and automated positioning applications where space is at a premium but performance cannot be compromised.

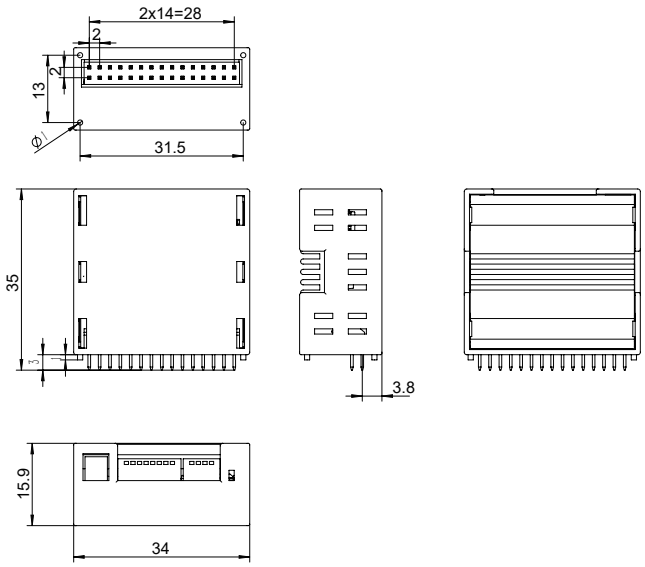
- Compact Size for Mounting
- Current range 0.3A to 2.2A/Phase
- Step & Direction or CW/CCW Pulse control
- Automatic idle current reduction
- Built-in self test move profile
- DIP switch setup - no software required
- Electronic damping (anti-resonance)
- Microstepping & Microstep Emulation
- Selectable digital input filter available

STR2-nano microstepping motor drive - Specifications

Electrical Specifications				
Parameter	**Min.**	**Typ.**	**Max.**	**Unit**
Power Supply	-	24	-	VDC
Output Current (Peak)	0.3	-	2.2	Amps
Under Voltage Protection	-	18	-	VDC
Over Voltage Protection	-	30	-	VDC
Step Pulse Frequency	2	-	500K	Hz
Step Pulse Width	500	-	-	ns
Direction Signal Width	80	-	-	us
STEP/DIR Input Signal Voltage	-	5	-	VDC
Driver Initialization Time	-	-	2.5	S
Environmental Specifications				
Heat Sinking Method	Natural cooling or fan-forced cooling			
Surrounding Air Conditions	Avoid dust, oily mist and corrosive air			
Operating Temperature	0 - 40°C (32 - 104°F)			
Maximum Ambient Humidity	90% non-condensing			
Storage Temperature	-10 - 70°C (14 - 158°F)			

sales@mclennan.co.uk
www.mclennan.co.uk
Call us on +44 (0)1252 531444

STR2-nano - Mechanical Drawings



STR2-nano - Connections - Inputs & Outputs

Pin-out		Signal	Description	Input/ Output
A1	B1	B-	Motor B-	Output
A2	B2	B+	Motor B+	Output
A3	B3	A-	Motor A-	Output
A4	B4	A+	Motor A+	Output
A5	B5	N.C.	Not used	
A6	B6	Power	24V DC	Input
A7				
	B7	GND	GND	Input
A8	B8			
	B9			
A9		5V Power	5V Power for I/O	Input
A10		DIR	Direction input	Input
	B10	STEP	Step pulse input	Input
A11		N.C.	Not used	
	B11	AR	Alarm Reset	Input
A12		N.C.	Not used	
	B12	ENA	Motor Enable	Input
A13		Out	Warning Output	Output
	B13	N.C.	Reserved	
A14	B14			
A15	B15			

Note:
STEP and DIR inputs can be converted to STEP CW and STEP CCW n CW/ CCW control mode.

STR2-nano - Switch Selections

The parameters and functions of STR2-nano can be set or changed by switches.

Running Current - SW1, SW2, SW3 for a total of 8 settings:

Peak Current (Amps)	SW1	SW2	SW3
0.3	ON	ON	ON
0.5	OFF	ON	ON
0.7	ON	OFF	ON
1.0	OFF	OFF	ON
1.3	ON	ON	OFF
1.6	OFF	ON	OFF
1.9	ON	OFF	OFF
2.2	**OFF**	**OFF**	**OFF**

Idle Current - SW4
ON = 50%, OFF = 90%

Self Test - SW9
ON=Enable, OFF=Disable.

Smoothing Fliter - SW10
ON=Enable, OFF=Disable

Contorl Mode - SW11
ON=CW/CCW, OFF=STEP/DIR

Step Filter - SW12
ON=150KHz, OFF=500KHz

Microstep Resolution - SW5, SW6, SW7, SW8 for a total of 16 settings:

Steps/Rev	SW5	SW6	SW7	SW8
200	ON	ON	ON	ON
500	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
6000	ON	ON	OFF	OFF
8000	OFF	ON	OFF	OFF
10000	ON	OFF	OFF	OFF
20000	OFF	OFF	OFF	OFF

sales@mclennan.co.uk www.mclennan.co.uk Call us on +44 (0)1252 531444