

2-Phase Hybrid Stepping Motor Driver

HIGH TORQUE, SILENT ROTATION
SERVEX FSD2B2P13-01 DC24V

Features

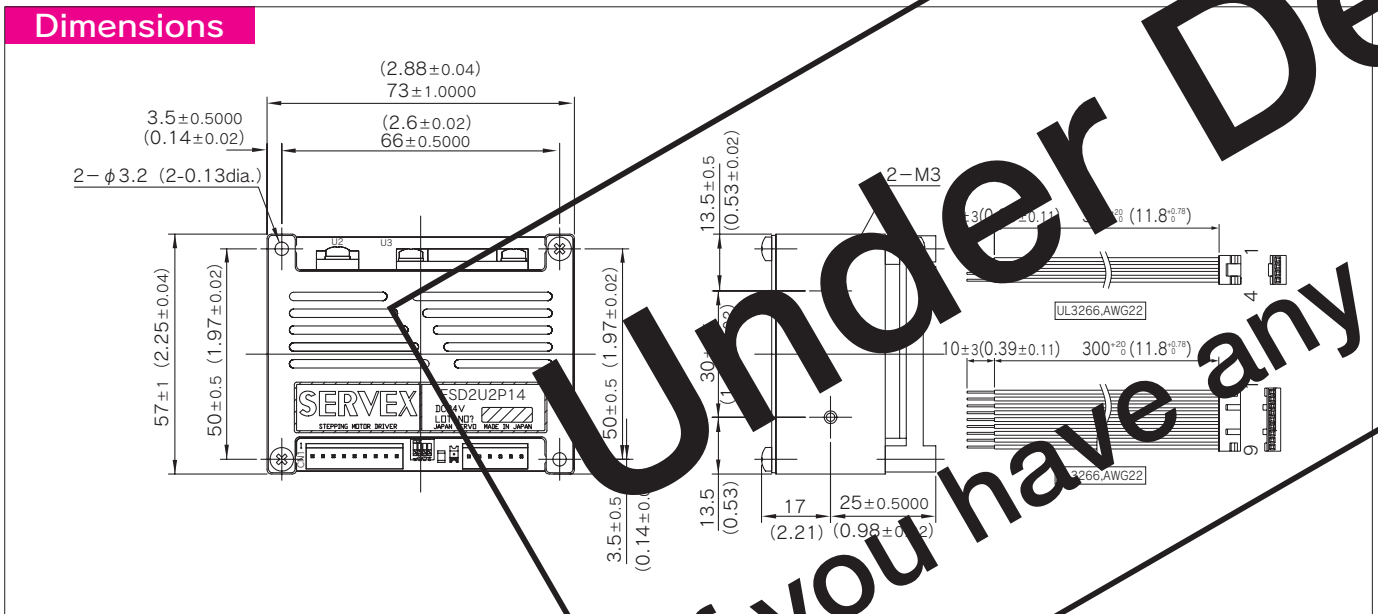
1. Ultra-compact driver measuring a mere 2.2 x 2.9 x 1.7 inches.
2. Bi-polar constant current driver.
3. Micro-stepping feature may be used to be selected from any one of 1/1 (full-step), 1/2 (micro-step), and 1/4 (micro-step) settings.
4. Through the use of 3-bit external signals, electric current settings may be specified to any one of 8 different setting from 0.41-2A/phase.
5. Input commands may be selected from either direction-of-rotation separate serial

Applicable motors

See page 3

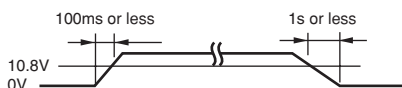


Dimensions



Power supply specifications

Motor Power supply voltage(VM) : 10.8V~33.0V



Motor output current; About 2A max.(different depending on the drive parameters of the motor being used)

Connector specifications

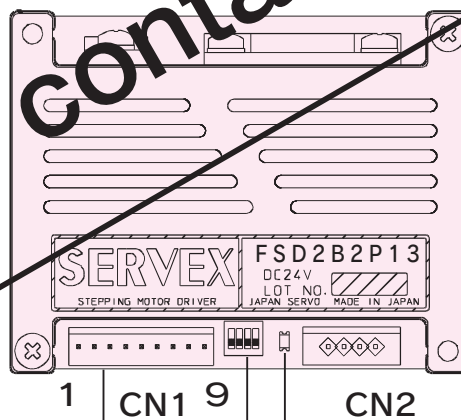
	FSD2B2P13-01 side		User side		Maker
	Maker Model	Applicable Housing	Applicable terminal(real)		
CN3	IL-G-9P-S3T2-SA	IL-G-9S-S3C2-SA	IL-G-C2-SC-10000		J.A.E
CN2	IL-G-4P-S3T2-SA	IL-G-4S-S3C2-SA	IL-G-C2-SC-10000		J.A.E

Required operating environment conditions

	In operation	At rest	Comments
Ambient temperature (°C)	0~+50	-20~60	
Ambient humidity(%)	35~85	35~85	Non condensation

Functions, Setting and Connections

Connector Name	Pin No.	Signal Name	Function	Connector Name	Pin No.	Signal Name	Function				
CN1	1	VM	Motor power supply (to be connected to 12-30V power supply)	CN2	1	A	Motor current(A)				
	2	P.GND	Motor power supply GND		2	\bar{A}	Motor current(\bar{A})				
	3	CW	CW directional drive pulse and serial pulse signal		3	B	Motor current(B)				
	4	CCW	CCW directional drive pulse and direction-of-rotation signal input		4	\bar{B}	Motor current(\bar{B})				
			Motor current (A)	0.41	0.64	0.86	1.09	1.32	1.55	1.77	2.00
	7	C0	H	L	H	L	H	L	H	L	
	8	C1	H	H	L	L	H	L	H	L	
	5	C2	H	H	H	L	L	L	L	L	
			Current(A)(save)	0.25	0.39	0.50	0.64	0.77	0.98	1.12	1.29
8	H.OFF	H. off (used to stop power to motor)									
9	S.GND	Signal ground									



Power supply input display LED

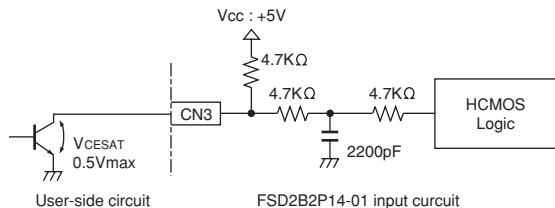
Switch No.	Name	Function	Switch Settings	
			OFF	ON
1	SEL	Drive pulse format	CW/CCW pulse	Step pulse/direction signal
2	SAVE	Automatic power saving	saving	not saving
3	MS0	Step angle	See below table	
4	MS1			

Setting of step angle (changing on power is not available.)

	MS0	ON	OFF	ON	OFF
MS1	ON	ON	OFF	OFF	OFF
Division of step angle	1/2	1/1	1/4	1/2	

Input circuit

CW, CCW, C0, C1, C2, H. OFF



Input signal specifications

Item	Signal	Specification	
		MIN	MAX
High level input voltage	Vih(V)	3.5	5.3
Low level input voltage	Vil(V)	0.0	0.8
Rise time	Tr(μs)	-	25
Fall time	Tf(μs)	-	15
Input pulse range	Twl(μs)	18	-
Direction of rotation change timing	Td(μs)	10	-

Note) Specified the voltage waveform between the user circuit ground and the FSD2B2P13-01 terminal

