

2-Phase Hybrid Stepping Motor Driver

HIGH TORQUE, SILENT ROTATION SERVEX FSD2B2P12-01 DC24V

Features

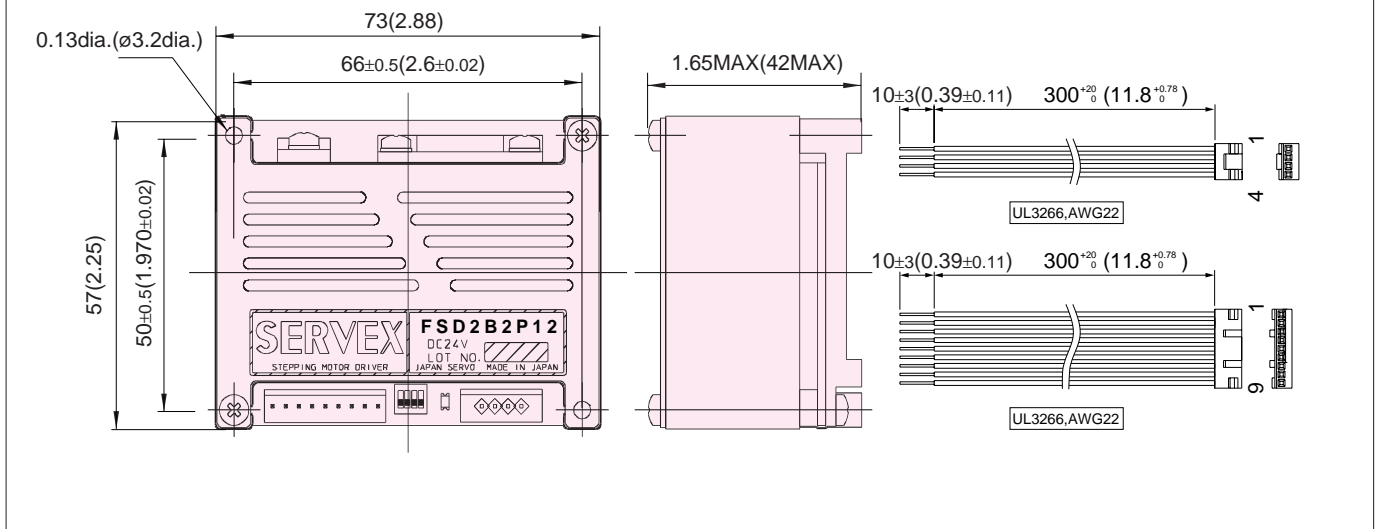
1. Ultra-compact driver measuring a mere 2.2 x 2.9 x 1.7 inches.
2. Bi-polar fixed-current driver.
3. Micro-stepping feature may be used to be selected from any one of 1/1 (full-step), 1/2 (micro-step), and 1/4 (micro-step) settings.
4. Through the use of 3-bit external signals, electric current settings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

Applicable motors

KH42HM2-951, 961	KH39EM2-851
KH42JM2-951, 961	KH39FM2-851
KH42KM2-951, 961	KH39GM2-851
KH56JM2-851, 951, 961	
KH56KM2-851, 951, 961	
KH56QM2-851, 951, 961	

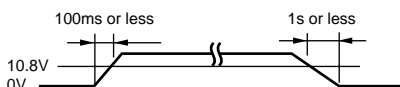


Dimensions



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

	FSD2U2P12-01 side		User side		Maker
	Maker Model	Applicable Housing	Applicable terminal(real)		
CN3	IL-G-9P-S3T2-E	IL-G-9S-S3C2	IL-G-C2-SC-10000		J.A.E
CN2	IL-G-6P-S3T2-E	IL-G-6S-S3C2	IL-G-C2-SC-10000		J.A.E

Required operating environment conditions

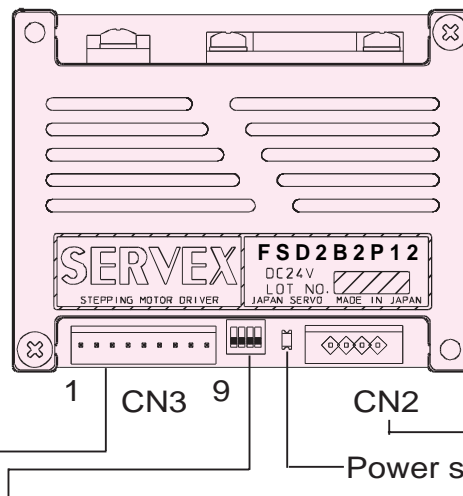
	In operation	At rest	Comments
Ambient temperature (°C)	0-+50	-20-60	
Ambient humidity(%)	35-85	35-85	Non condensation

Functions, Setting and Connections

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Connector Name	Pin No.	Signal Name	Function
CN3	1	VM	Motor power supply(to be connected to 12-30V power supply)
	2	P.GND	Motor power supply GND
	3	CW	CW directional drive pulse and serial pulse signal input
	4	CCW	CCW directional drive pulse and direction-of-rotation signal input
		Motor current (A)	0.41 0.64 0.86 1.09 1.32 1.55 1.77 2.00
	7	C0	H L L H L H L H L L
	6	C1	H H L L H H L L L L
	5	C2	H H H H L L L L L L
	8	H.OFF	H. off (used to cut power to motor)
9	S.GND	Signal ground	

Connector Name	Pin No.	Signal Name	Function
CN2	1	A	Motor current(A)
	2	\bar{A}	Motor current(\bar{A})
	3	B	Motor current(B)
	4	\bar{B}	Motor current(\bar{B})

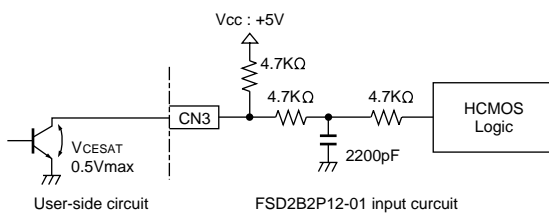


Power supply input display LED

Switch No.	Switch Name	Function	Switch position and operation	
			OFF	ON
1	SEL	Pulse input method settings	CW / CCW	Serial Pulse / DIR signal
2	SAVE	Selection of automatic motor power save feature	save	do not save
3	Step angle settings	Divisions	1 / 2	1 / 1
		MS0	ON	OFF
		MS1	ON	ON
4			OFF	OFF

Input circuit

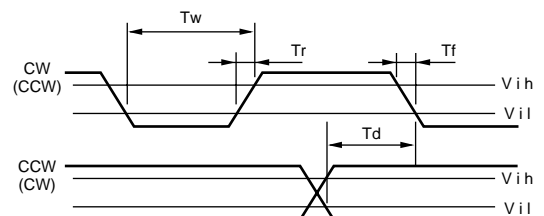
CW, CCW, C0, C1, C2, H. OFF



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 FSD2B2P12-01 terminal



Connector specifications

	FSD2B2P12-01 side		User side		Maker
	Maker Model	Applicable Housing	Applicable Housing	Applicable terminal(real)	
CN3	IL-G-9P-S3T2-E	IL-G-9S-S3C2	IL-G-9S-S3C2	IL-G-C2-SC-10000	J.A.E
CN2	IL-G-4P-S3T2-E	IL-G-4S-S3C2	IL-G-4S-S3C2	IL-G-C2-SC-10000	J.A.E

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