

2-Phase Hybrid Stepping Motor Driver

HIGH TORQUE, SILENT ROTATION
SERVEX FSD2U3P13-01 DC24V

Features

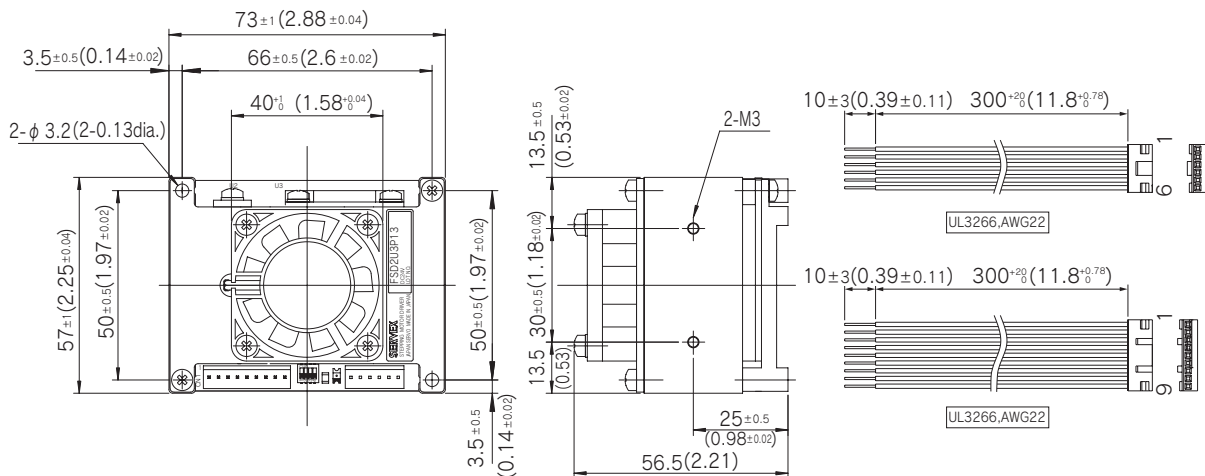
1. The high current (3 A MAX) small FSD driver.
2. Uni-polar constant current driver.
3. Micro-stepping feature may be used to be selected from any one of 1/1 (full-step), 1/2 (micro-step), and 1/4 (micro-step) settings.
4. Through the use of 3-bit external signals, electric current settings may be specified to any one of 8 different setting from 0.50-3A/phase.
5. Input commands may be selected from either of direction-of-rotation separate serial pulse signals or a combination of directional signals and pulse signals.

Applicable motors

See page 3

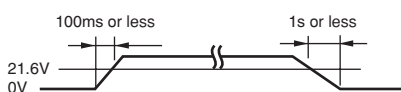


Dimensions Unit = mm (inch)



Power supply specifications

Motor Power supply voltage (VM) : 21.6V~26.4V



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-SA	IL-G-9S-S3C2-SA	IL-G-C2-SC-10000	J.A.E
CN2	IL-G-6P-S3T2-SA	IL-G-6S-S3C2-SA	IL-G-C2-SC-10000	J.A.E

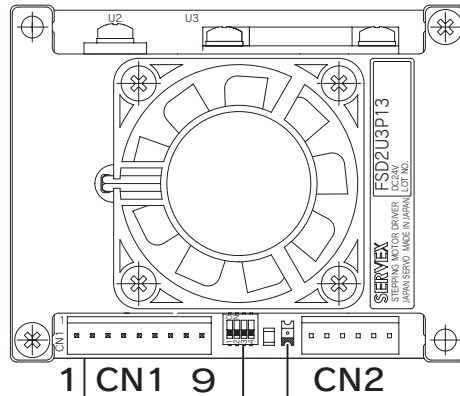
Required operating environment conditions

	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 No.	Terminal No.	Name	Function
CN1	1	VM	Motor power supply 24VDC
	2	P.GND	Power grounding
	3	CW	The CW direction drive pulse or the step command pulse (Switch No.1)
	4	CCW	The CCW direction drive pulse or the direction signal (Switch No.1)
		Motor current (A)	0.50 0.88 1.24 1.60 1.90 2.35 2.68 3.00
	7	C0	H L H L H L H L
	6	C1	H H L L L H H L L
	5	C2	H H H H L L L L
		Motor current saving mode (A)	0.38 0.60 0.86 1.05 1.30 1.50 1.72 1.96
8	HOFF	Motor on/off (Hi : off)	
9	GND	Signal Grounding	

Connector No.	Terminal No.	Name	Function
CN2	1	A	To Motor phase A
	2	A.COM	To Motor phase A common line
	3	\bar{A}	To Motor phase \bar{A}
	4	B	To Motor phase B
	5	B.COM	To Motor phase B common line
	6	\bar{B}	To Motor phase \bar{B}



Power supply input display LED

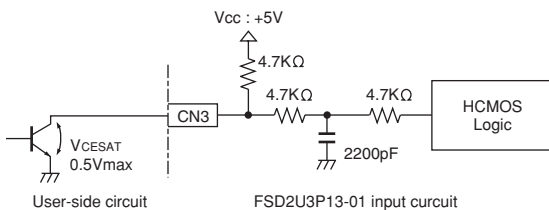
Switch No.	Name	Function	Switch Settings	
			OFF	ON
1	SEL	Drive pulse format	CW/CCW pulse	Step pulse/direction signal
2	SAVE	Automatic power saving	saving	not saving
3	MS0	Step angle	See below table	
4	MS1			

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, HOFF



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 FSD2U3P13-01 terminal

