

DINGS

Precision Motion Specialist

MOTION CONTROLLER INTRODUCTION

Stand Alone Stepper Electronics [OPEN LOOP type / CLOSED LOOP type]

Integrated Stepper Electronics [OPEN LOOP type / CLOSED LOOP type]

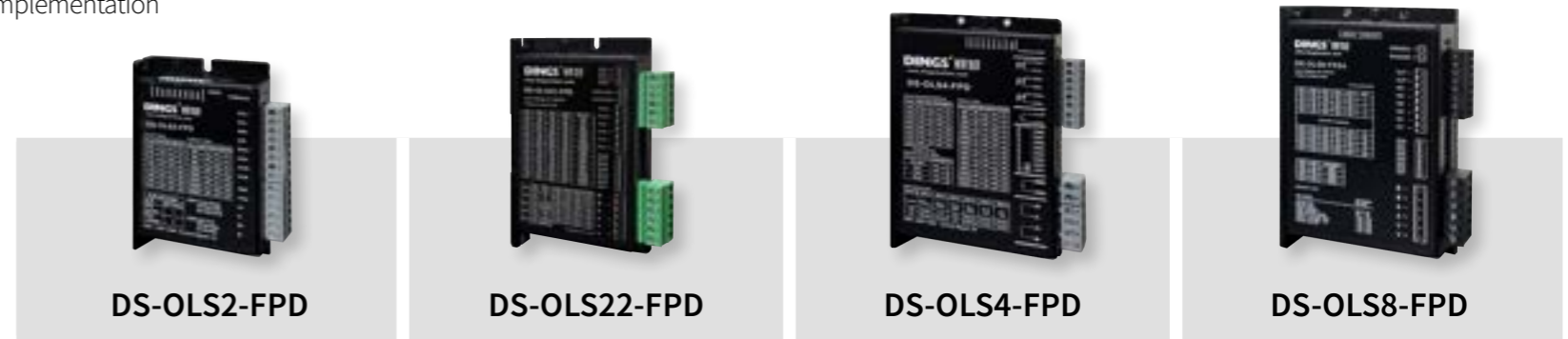
BLDC Motor Speed Control Electronics

BLDC · VCM Motor Position Control Electronics

Jiangsu DINGS' Intelligent Control Technology Co., Ltd.



Pulse input type of Open Loop 2-Phase Step Motor Drive
Microstep resolution can be set through DIP switch setting
Output current can be set through DIP switch setting
Smooth filtering, Soft-Start function implementation
Protection alarm output
Certified CE and RoHS



POWER SUPPLY	24 – 36 VDC	12 – 48 VDC	24 – 48 VDC	24 - 72 VDC
RATED OUTPUT CURRENT	2.2 A	3.0 A	4.2 A	7.8 A
INTERFACE	Step & Direction (1 pulse) or CW / CCW (2 pulse)			
INPUT / OUTPUT SIGNAL	3 differential inputs 1 differential output	3 differential inputs	3 differential inputs 2 digital outputs	3 differential inputs 1 digital output
APPLICABLE MOTOR	□ 14/20/28/35/42 mm	□ 14/20/28/35/42/57 mm	□ 42/57/60 mm	□ 57/60/86 mm
SIZE	86 x 55 x 20 mm	92.5 x 56 x 21 mm	118 x 75 x 25 mm	118 x 78 x 34 mm
WEIGHT	90g	96g	250g	300g

Pulse input type of Open Loop 5-Phase Step Motor Drive
Microstep resolution can be set through DIP switch setting
Output current can be set through DIP switch setting
Protection alarm output
Certified CE and RoHS



POWER SUPPLY	24 - 48 VDC
RATED OUTPUT CURRENT	2.4 A
INTERFACE	Step & Direction (1 pulse) or CW / CCW (2 pulse)
INPUT / OUTPUT SIGNAL	4 differential inputs 2 digital outputs
APPLICABLE MOTOR	□ 28/42/60 mm
SIZE	85 x 56 x 21 mm
WEIGHT	96g

RS-485 communication type of Open Loop 2-Phase Step Motor Drive
Supporting up to 30 axes connection control through MODBUS-RTU protocol communication
Command mode selectable (PULSE / RS-485 communication)
Various parameters can be set through DINGS' Tuner Pro GUI
Supporting up to 102,400 microstep resolution
Various error detection functions
Certified CE and RoHS



POWER SUPPLY	24 - 48 VDC	24 - 72 VDC
RATED OUTPUT CURRENT	3.2 A	6.5 A
INTERFACE	PULSE (1/2 pulse) or RS-485 MODBUS-RTU	
INPUT / OUTPUT SIGNAL	2 differential inputs 1 digital output	3 differential inputs 1 digital output
APPLICABLE MOTOR	□ 14/20/28/35/42 mm	□ 57/60/86 mm
SIZE	94 x 77 x 27 mm	118 x 78 x 34 mm
WEIGHT	175g	300g

Analog input type of Open Loop 2-Phase Step Motor Drive
Internal operation speed can be set through DIP switch setting



POWER SUPPLY	24 - 48 VDC
RATED OUTPUT CURRENT	4.5 A
INTERFACE	Analog Speed Command
INPUT / OUTPUT SIGNAL	3 digital inputs 1 analog input (0 - 10 VDC)
APPLICABLE MOTOR	□ 14/20/28/35/42/57/60 mm
SIZE	118 x 78 x 34 mm
WEIGHT	300g

Stand Alone Stepper Electronic CLOSED LOOP TYPE

RS-485 communication type of Closed Loop 2-Phase Step Motor Drive

Supporting up to 30 axes connection control through MODBUS-RTU protocol communication

Various parameters can be set through DINGS' Tuner Pro GUI

DS-CLS10-FRS4-1A

- Supporting ABS Encoder (Biss-C Type, Single-16bit / Multi-16bit)

DS-CLS9-FRS4-01

- Dedicated drive with Force Control Function

Command mode selectable

- PULSE / RS-485 communication

Certified CE and RoHS



POWER SUPPLY	24 – 48 VDC	24 – 72 VDC	
RATED OUTPUT CURRENT	4.5 A	6.0 A	6.5 A
INTERFACE	PULSE (1/2 pulse) or RS-485 MODBUS-RTU		
INPUT / OUTPUT SIGNAL	2 differential inputs 5 digital inputs 4 digital outputs 3 encoder signal inputs (differential) 3 encoder signal outputs (differential)	2 differential inputs 5 digital inputs 3 digital outputs 1 brake output 3 encoder signal inputs (differential) 3 encoder signal outputs (differential)	2 differential inputs 5 digital inputs 3 digital outputs 1 brake output
APPLICABLE MOTOR	□ 14/20/28/35/42/57/60 mm	□ 57/60/86 mm	
SIZE	134 x 77 x 34 mm	156 x 97 x 33.5 mm	
WEIGHT	350g	376g	500g

PWM constant current bipolar micro-stepping drive

Support CANopen / EtherCAT communication protocol

Support control mode PP, PV, HM, PT / PP, PV, HM, CSP, CVS

Motor short circuit protection, under-voltage protection, over-voltage protection, over-current protection, etc.

Exquisite design, low noise and low vibration

Optically isolated inputs



POWER SUPPLY	24 - 48 VDC
RATED OUTPUT CURRENT	6.5 A
INTERFACE	CANopen EtherCAT
INPUT / OUTPUT SIGNAL	2 differential inputs 5 digital inputs 3 digital outputs 1 brake output 3 encoder signal inputs (differential) 3 encoder signal outputs (differential)
APPLICABLE MOTOR	□ 14/20/28/35/42/57/60/86 mm
SIZE	156 x 97 x 33.5 mm
WEIGHT	500g

Supports up to 2-axis control
 Support EtherCAT communication protocol, support control mode PP, PV, HM, PT / PP, PV, HM, CSP, CVS
 Motor short circuit protection, under-voltage protection, over-voltage protection, over-current protection, etc.
 Exquisite design, low noise and low vibration
 Optically isolated inputs



[I=INC Encoder]
DS-CLS9-FETC-2I



[A=ABS Encoder / Biss-C type]
DS-CLS9-FETC-2A

POWER SUPPLY	24 – 48 VDC
RATED OUTPUT CURRENT	6.5 A
INTERFACE	EtherCAT
INPUT / OUTPUT SIGNAL	4 digital inputs x 2 2 digital outputs x 2 1 brake output x 2
APPLICABLE MOTOR	□ 14/20/28/35/42/57/60/86 mm
SIZE	156 x 97 x 34 mm
WEIGHT	500g

Maximum support for 4-axes control
 Support EtherCAT communication protocol
 Support control mode PP, PV, HM, PT / PP, PV, HM, CSP, CVS
 Adapted to open/closed-loop for 2-phase, 3-phase, 5-phase stepper motors
 Motor short circuit protection, under-voltage protection, over-voltage protection, over-current protection, etc.
 Exquisite design, low noise and low vibration
 Optically isolated inputs



DS-CLS3-FETC-4I

POWER SUPPLY	24 – 36 VDC
RATED OUTPUT CURRENT	3.0 A
INTERFACE	EtherCAT
INPUT / OUTPUT SIGNAL	3 digital inputs 2 digital outputs
APPLICABLE MOTOR	□ 14/20/28/35/42/57/60/86 mm
SIZE	144 x 106 x 31 mm
WEIGHT	450g

Integrated Stepper Electronics OPEN LOOP TYPE

Integrated Open Loop 2-Phase Step Motor Drive

Supporting Pulse input, RS-485 MODBUS-RTU, CANopen

42mm general step motor, Hollow shaft motor and all DINGS' Linear actuators (E, N, C, K)

Various parameters can be set through DINGS' Tuner Pro GUI

Certified CE and RoHS



POWER SUPPLY	24 – 36 VDC	
RATED OUTPUT CURRENT	3.0 A	
INTERFACE	Pulse input RS-485 MODBUS-RTU	CANopen
INPUT / OUTPUT SIGNAL	2 differential inputs 2 digital inputs 1 digital output	4 digital inputs 1 digital output
APPLICABLE MOTOR	□ 42 mm	
SIZE	42.2 x 42.2 x 25.2 mm	
WEIGHT	60g	

Integrated Open Loop 2-Phase Step Motor Drive

Supporting Pulse input, RS-485 MODBUS-RTU, CANopen, Analog speed input

57mm general step motor, Hollow shaft motor and all DINGS' Linear actuators (E, N, C, K)

Various parameters can be set through DINGS' Tuner Pro GUI

Certified CE and RoHS



POWER SUPPLY	24 – 48 VDC		
RATED OUTPUT CURRENT	5.6 A		
INTERFACE	Pulse input RS-485 MODBUS-RTU	CANopen	Analog Speed Command
INPUT / OUTPUT SIGNAL	2 differential inputs 2 digital inputs 1 digital output	4 digital inputs 1 digital output	3 digital inputs 1 analog input
APPLICABLE MOTOR	□ 57 mm		
SIZE	56.2 x 56.2 x 25.4 mm		

Integrated Stepper Electronics CLOSED LOOP TYPE

Integrated Closed Loop 2-Phase Step Motor Drive

Supporting RS-485 MODBUS-RTU

Applicable to general step motor and DINGS' External Type Linear Actuator

Total 4 origin methods including origin sensor, Z-phase output, limit sensor and torque origin

Various parameters can be set through dedicated Ezi-Motion GUI program

64 Position Table Functions

Certified CE and RoHS



POWER SUPPLY	24 VDC		
RATED OUTPUT CURRENT	1.5 A	1.0 A	2.0 A
INTERFACE	Pulse input RS-485 MODBUS-RTU	RS-485 MODBUS-RTU	
INPUT / OUTPUT SIGNAL	3 digital inputs 1 digital output	4 digital inputs	7 digital inputs 3 digital outputs
APPLICABLE MOTOR	□ 28 mm		□ 42 mm

BLDC Motor Speed Control Electronics

RS-485 MODBUS-RTU supported speed controller
Suitable for BLDC motors
Speed range : 150~50000 RPM (actual operation varies with motor characteristics)
Protection features : Overvoltage, Undervoltage, Overcurrent, Hall signal error alarm



DS-OLBD1-FRS4



DS-OLBD3-FRS4

POWER SUPPLY	12 – 48 VDC	
RATED OUTPUT CURRENT	6 A (Max. 18 A)	10 A (Max. 30 A)
INTERFACE	RS-485 MODBUS-RTU or Analog Speed Command	
INPUT / OUTPUT SIGNAL	3 digital inputs 2 digital outputs 1 analog input	
APPLICABLE MOTOR	BLDC motor	
SIZE	118 x 75.5 x 25.5 mm	118 x 77 x 34 mm
WEIGHT	200g	300g

BLDC · VCM Motor Position Control Electronics

Closed Loop drive for BLDC and Voice Coil motors
CiA 301 Application layer and CiA 402 Device profile for drive and motion control
Auto tuning and various parameter setting through DINGS' SERVO STUDIO
Supporting CANopen and EtherCAT
Position, Speed and Torque control



DS-BVM-FCAO / FETC



DS-BVS-FCAO / FETC

POWER SUPPLY	12 – 48 VDC	
RATED OUTPUT CURRENT	3 A (Max. 6 A)	10 A (Max. 20 A)
INTERFACE	FETC : EtherCAT / FCAO : CANopen	
INPUT / OUTPUT SIGNAL	6 digital inputs 2 digital outputs 1 analog input	
APPLICABLE MOTOR	Slotless BLDC : Ø 16/22/28 mm VCM : Ø 25.4/30 mm	Slotless BLDC : Ø 28/36/42 mm BLDC : □ 42/57/60/86 mm
SIZE	72 x 44.3 x 29.8 mm	109.5 x 73.5 x 31 mm
WEIGHT	90g	296g



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