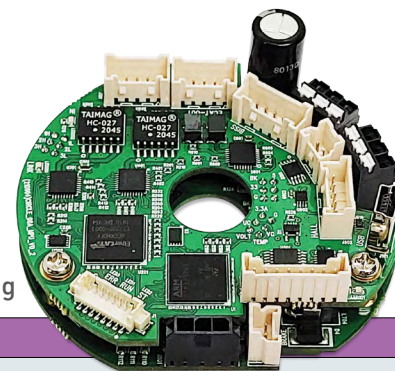# ROBOT JOINT SERVO DRIVE 8A

WEC-D048/08-FS0025-E (Diameter : Outer 70mm, Inner 15mm)

W : 51g

Ratings	08
Continuous Output Current A	8
Peak Output Current A	18

Basic Specifications

Feature		Specification
Motors	DC / BLDC / PMSM / VCM	Rotary servo motors, Linear servo motors
Current (Torque) Control	Control Periodic	24KHz
	Control Loop	PI + Feed-forward
Velocity & Position Control	Control Periodic	4KHz
	Control Loop	Cascade P/PI + Feed-forward
	Filters	First order low pass filter, Four notch filters, First order adaptive windowing filters
Reference Command	Current / Velocity / Position	USB, EtherCAT(CoE, FoE)
Auto Tuning	Method	Automatic self-configuration and optimization of motor phasing, wires, current loop, velocity control loop
GUI	User Interface	WELSS(WelconServoStudio), Setting, Drive, Motor, Feedback, I/O, Motion
Input Voltage	• Motor Voltage : 12~48VDC(H/W Limit 10~60V) • Control Voltage : 24VDC(H/W Limit 20~30V)	
Protective Functions	Under- and over-voltage, Over-current, Over-load (with I^2T), Drive over-temperature	
Environment	• Ambient temperature : Operation 0~50℃, Storage 0~70℃ • Humidity : 10~90% • Vibration : 1.0g	
Compliance Standard	CE, KC	

Communication

Feature	Specification
USB	• Baud rate : up to 3Mbps • Maximum cable length : 3m
EtherCAT	100Mbps, Communication cycle time : up to 250μs
CAN	Not Supported
RS-485	Not Supported

I/O

Feature		Specification
Analog Input	Quantity	1
	Voltage Range	Analog ±10 VDC differential
	Input Resolution	14bit
Digital Inputs	Quantity	Not Supported
	Signal	
	Voltage	
Digital Outputs	Quantity	Not Supported
	Signal	
	Voltage	
	Max. Output Current	
Brake	Several Dynamic brake and Active disable options (1A)	

Motor Feedback

Feature		Specification
General	Supply Voltage	5VDC
Incremental Encoder	Signal	A-quad-B with or without index, RS422, Differential
	A-quad-B Max Input Frequency	10MHz (before quadrature)
Digital Hall Sensor	Signal	Single-ended
	Type	Separated hall sensor
Analog Hall Sensor	Signal	Not Supported
	Sampling Frequency	
Sin/Cos Encoder	Signal	Not Supported
	Sampling Frequency	
Serial Encoder	Type	SSI, BiSS-C
	Bite rate	0.5Mbps, 1Mbps, 2Mbps, 2.5Mbps, 5Mbps