

EMMS-AS Servo Motors and CMMD-AS Intelligent Dual Axis Servo Drive

FESTO



Standard Servo Functionality

Intelligent Servo Drive CMMD-AS

The CMMD-AS servo drive is a compact dual axis cost effective intelligent servo drive for high speed positioning and exceptional performance.

Numerous industry standard control interfaces which are an integral part of the CMMD-AS drive are available for a variety of applications.

Intelligent positioning capabilities include absolute/relative moves, variety of homing methods, user defined motion profiles (8) and sequential position set linking. Other features of the CMMD-AS drive include a bidirectional encoder interface (emulation output/input) – Master-Slave applications (E-Gearing), a high speed sampling input for time critical tasks, SD card to store project data, optional slide in network modules, integrated braking resistor and EMC filter.

This compact dual axis drive is ideal solution for simple multi axis handling systems. CMMD-AS drive provides a cost effective package with savings of 10-20% when compared to two single axis drives.

High Performance Servo Motors EMMS-AS

The CMMD-AS drive supports EMMS-AS series of servo motors which employs an absolute encoder (EnDat - single turn and multi turn). Options include holding brake and external gearboxes (EMGA) with gear ratios 3:1 and 5:1 for applications requiring higher torque.

The EMMS-AS (in conjunction with the CMMD-AS drive) produces a nominal torque range of 0.2 – 3.76 Nm and speeds up to 6000 RPM.

Suitable Applications

- Palletizing
- Sorting
- Handling systems
- Clamping
- Gluing/cutting (contouring)
- Electronic gearing.

Convenient Product Sizing and Selection - Reduced Engineering Time

The Festo sizing tool – Positioning Drives – calculates the ideal motor, drive, actuator combination based on the application needs. The user does not require in-depth knowledge on sizing electromechanical systems.

A wide variety of options for a range of Festo mechanisms are offered with details on utilization/loading.

The CMMD-AS servo drive is configured using the Festo configuration tool (FCT) which is a simple to use, easy to navigate, well illustrated configuration software. Tuning parameters for a wide range of Festo actuator, motor, drive combinations are integrated in FCT, significantly reducing engineering time.

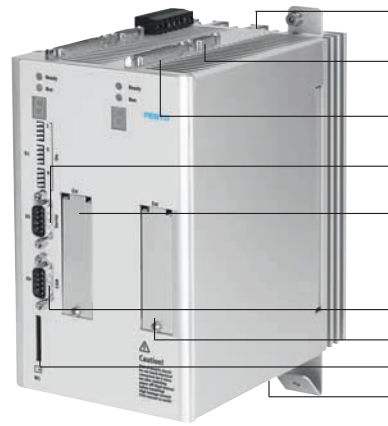
Configurable diagnostics allows the user to tailor the drive as to how to respond to various errors and warnings.

Festo Handling & Positioning Profile (FHPP) is a simple consistent data format used in network implementation of all Festo drives to all supported fieldbuses.

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User benefits - Summary

- Reduce inventory – The CMMD-AS servo drive meets a range of application needs with many integrated industry standard control interfaces. Connectivity to common fieldbuses (slide-in modules: Profibus, DeviceNet, CANopen) – the drive can be adapted to various PLC architectures
- Connectivity to all Festo motion controllers (integrated CANopen interface) – seamlessly integrated solutions from a single source
- Simple & faster commissioning/easy parameter setting (FCT/FHPP) – saves time and significantly reduces engineering and training efforts
- SD memory card – convenient duplication tool for high volume projects, restoration of original settings, quick drive swap out, maintaining consistency in machine (firmware and project)
- Sequential position set linking reduces PLC I/O and programming efforts
- Absolute encoder feedback eliminates homing routines, saving time and cost
- Complies with international safety standards
- Easy of programming and integration into Rockwell and Siemens platforms (Add-On Instructions & Function blocks)



- Integrated filter and braking resistor*
- Bidirectional encoder interface (Emulation output/input)
- Digital & Analog I/O interface (Extended functionality)
- RS232 interface for parameterization/RS485
- Optional slide-in modules*:
 - Profibus
 - DeviceNet
 - Ext. digital I/O
- Integrated CANopen interface*
- Ext. digital I/O module
- SD memory card
- Absolute encoder interface Single/Multiturn

General technical data CMMD-AS

Torque at standstill [Nm]	Up to 4.7
Peak torque [Nm]	Up to 9.2
Speed [rpm]	Up to 6,000
Position sets	63
Linking position sets	Sequential without branching
Protection class	IP20 (CMMD-AS), IP54 (motor shaft), IP65 (motor housing)
Safe stop	To EN954-1 Cat3

Encoder interfaces

Feedback from motor (x2)	EnDat V2.2 (without analog signals)
Bidirectional encoder interface (x2)	Emulated encoder output (incremental, resolution 4,096 PPR) Encoder input (incremental)

Control interfaces

Digital I/O (x2) [V DC]	12 - 30 (14 DI, electrically isolated; 5 DO, not electrically isolated, configurable I/O)
Analog I/O (x2) [V]	± 10 (1 AI, differential; 1 AO, short circuit-proof, resolution 8-bit)
Serial interfaces	RS232, RS485, RS422

Fieldbus communications

Fieldbus communications	Communication profile	Max. fieldbus transmission rate [Mbit/s]
CANopen (integrated)	(DS301) FHPP & DSP402	1
DeviceNet	FHPP	0.5
Profibus DP	DP-V0/FHPP	12

Electrical data CMMD-AS

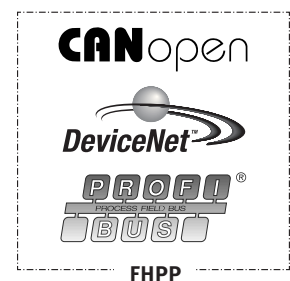
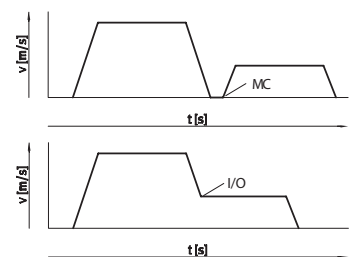
Nominal voltage phases		1
Nominal/Peak current	[A]	4/10
Mains frequency	[Hz]	50 ... 60
Load supply*: Input voltage range	[V AC]	95 ... 255
Max. nominal input current	[A]	5
Rated/Peak output	[VA]	600/1,200
Logic supply*: Nominal voltage	[V DC]	24 ±20%
Nominal current	[A]	4 ... 5
Max. current of DO	[mA]	100

Ordering data

Motor controller CMMD-AS	Part No.	Type
	561406	CMMD-AS-C8-3A

* Common to both axes

Linking Position Sets



Festo Corporation

For ordering assistance, or to find your nearest Festo Distributor,
Call: 1.800.99.FESTO
Fax: 1.800.96.FESTO
Email: customer.service@us.festo.com
Visit: www.festo.com/us

For technical support,
Call: 1.866.G0.FESTO
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