# Motor controller CMMB-AS

**FESTO**

# Characteristics

**At a glance**

- Full integration of all components for the controller and power unit, including RS232 and pulse direction interface
- Digital single-turn absolute encoder
- Can be operated as a torque, rotational speed or position controller
- Integrated positioning control
- Time-optimised (trapezoidal) or jerk-free (S-shaped) positioning
- Absolute and relative movements
- Point-to-point positioning, with and without motion smoothing
- Position synchronisation
- Wide range of homing methods
- Compliance with the latest CE, EN and UL standards
- 32 position records
- 8 acceleration profiles

Input/output
- Freely programmable I/Os
- Simple coupling to a higher-level controller via an I/O interface
- Synchronous operation
- Master/slave mode

Integrated sequence control
- Automatic sequence of position sets without a higher-order controller
- Linear and cyclical position sequences
- Adjustable delay times

Motion program
- Linking any number of position sets into a motion program
- Step enabling conditions for the motion program possible via digital inputs, for example: MC – motion complete / I/O – digital inputs

## Type code

| 001 | Series | |
|---|---|---|
| **CMMB** | Motor controller | |

| 002 | Motor type | |
|---|---|---|
| **AS** | AC synchronous | |

| 003 | Performance class | |
|---|---|---|
| **01** | 100 W | |
| **02** | 200 W | |
| **04** | 400 W | |
| **07** | 750 W | |

## Datasheet

### General technical data

| Controller nominal output | 100 | 200 | 400 | 750 |
|---|---|---|---|---|
| Type of mounting | On sub-base, Screw-clamped | | | |
| Display | 7-segment display | | | |
| Parameterisation interface | Parameterisation and commissioning, RS232 (38400 baud) | | | |
| Encoder interface output, function | Setpoint specification for downstream slave drive. | | | |
| Encoder interface output, features | Resolution 65536 ppr | | | |
| Encoder interface input, function | Setpoint speed value as encoder signal | | | |
| Encoder interface input, features | Nikon A-format | | | |
| Number of analogue setpoint inputs | 2 | | | |
| Brake resistor, external | 75 Ohm | | | |
| Brake resistance | 300 Ohm | | | |
| Product weight | 740 g | | 760 g | |

### Technical data I/O interface

| Number of digital logic outputs 24 V DC | 5 |
|---|---|
| Number of digital logic inputs | 7 |
| Working range of logic input | 12.5 … 30 V |
| Process interfacing | Pulse/direction<br>For 32 position sets |

### Electrical data

| Controller nominal output | 100 VA | 200 VA | 400 VA | 750 VA |
|---|---|---|---|---|
| Output voltage class AC | 3x 0 - 240 V | | | |
| Nominal current | 1.5 A | 3 A | 4.5 A | 7 A |
| Peak current per phase, effective | 7 A | | 15 A | |
| Max. peak current duration | 5 s | | | |
| Max. intermediate circuit voltage DC | 300 V | | | |
| Output frequency | 0 … 400 Hz | | | |
| Phases of nominal operating voltage | Single-phase | | | |
| Input voltage range AC | 200 … 240 V | | | |
| Permissible voltage fluctuations | +/- 10% | | | |
| Maximum output | 2,100 VA | | 4,500 VA | |
| Mains frequency | 50 … 60 Hz | | | |
| Nominal voltage for logic power supply DC | 24 V | | | |
| Permissible range for logic voltage | ± 10% | | | |
| Current consumption of logic power supply without clamping brake | 0.5 A | | | |
| Max. current digital logic outputs | 100 mA | | | |

## Datasheet

| **Operating and environmental conditions** | |
|---|---|
| Features of digital logic out-puts | Galvanically isolated<br>Freely configurable in some cases |
| Degree of protection | IP20 |
| Ambient temperature | 0 ... 40°C |
| Storage temperature | -10 ... 70°C |
| Relative air humidity | 5 - 95% |
| Pollution degree | 2 |
| CE mark (see declaration of conformity) [1] | To EU EMC Directive<br>To EU Low Voltage Directive<br>In accordance with EU RoHS Directive |
| CE marking (see declaration of conformity) [2] | To UK instructions for EMC<br>To UK RoHS instructions<br>To UK regulations for electrical equipment |
| Approval | c UL us listed (OL) |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Note on materials | RoHS-compliant |

1) More information www.festo.com/catalogue/cmmb → Support/Downloads

2) More information www.festo.com/catalogue/cmmb → Support/Downloads

## Dimensions

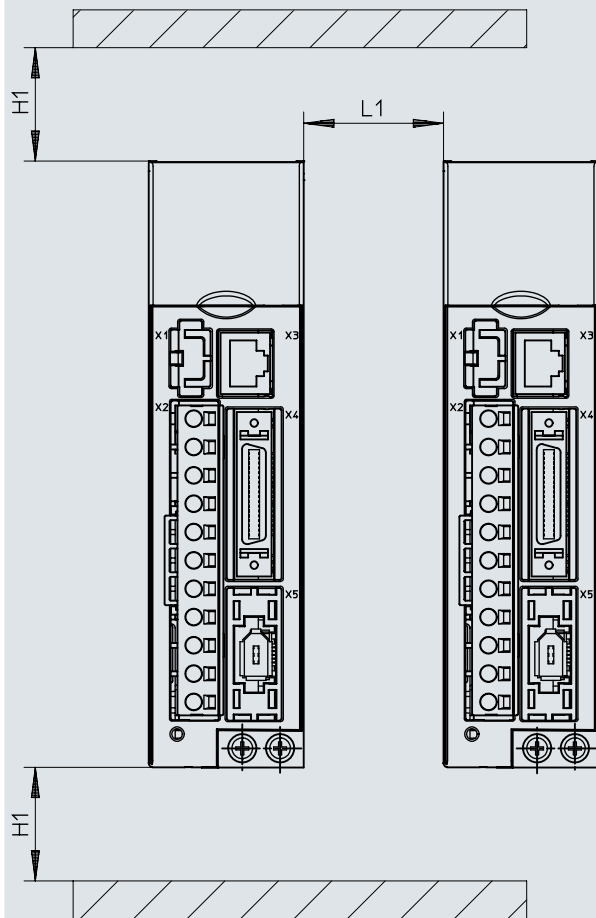**Dimensions – Motor controller CMMB-AS, for servo motors**  Download CAD data ➔ www.festo.com
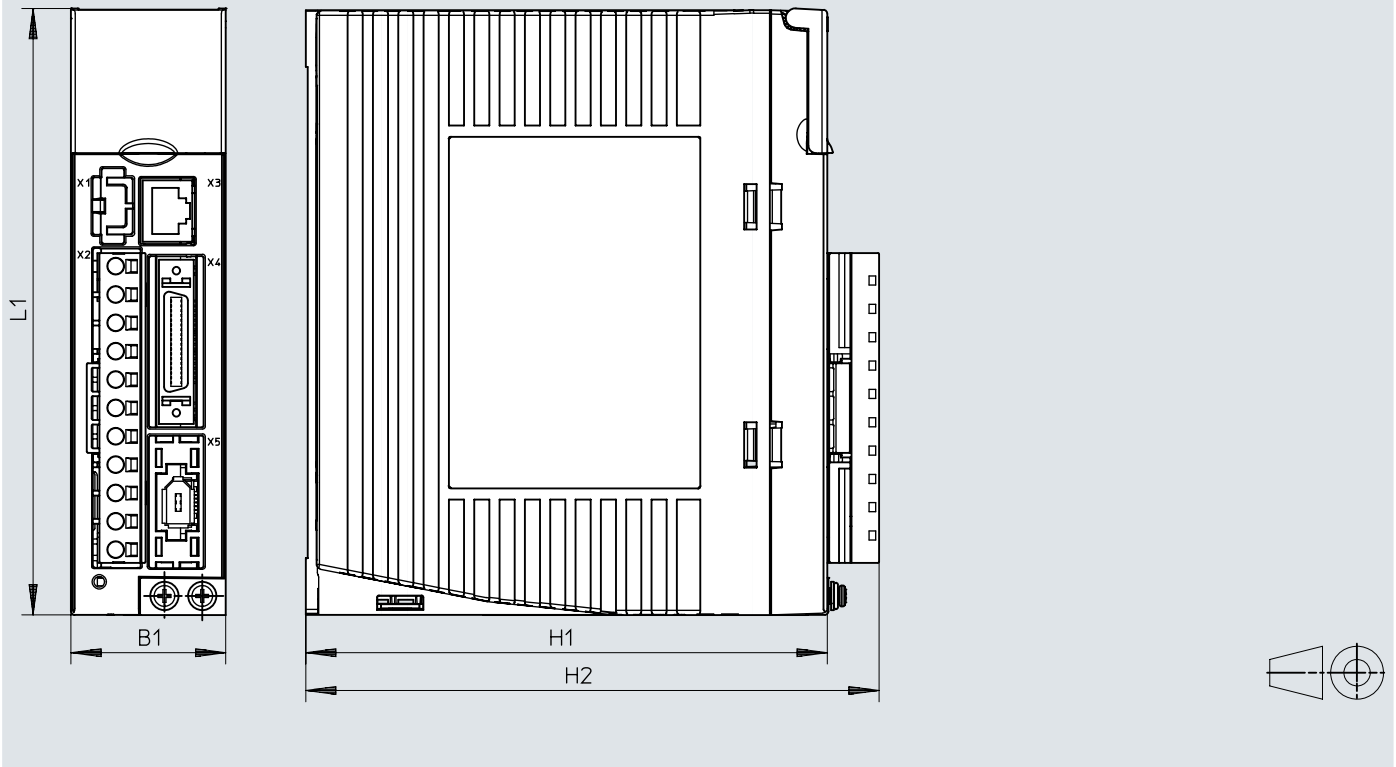


|  | B1 | H1 | H2 | L1 |
|---|---|---|---|---|
| CMMB-AS-01 | 41 | 138 | 152 | 160,5 |
| CMMB-AS-02 |  |  |  |  |
| CMMB-AS-04 |  |  |  |  |
| CMMB-AS-07 |  |  |  |  |

## Dimensions
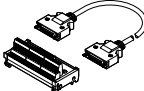
| H1 | L1 |
|---|---|
| 50 | 10 |
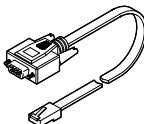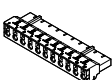
## Ordering data

**Ordering data**

| | Controller nominal output [1] | Part no. | Type |
|---|---|---|---|
| | 100 VA | **5105641** | **CMMB-AS-01** |
| | 200 VA | **5105642** | **CMMB-AS-02** |
| | 400 VA | **5105643** | **CMMB-AS-04** |
| | 750 VA | **5105644** | **CMMB-AS-07** |

1) The assortment of plugs NEKM-C-11 is included in the scope of delivery of the motor controller.

# Accessories

**Manifold block with connecting cable from I/O interface to controller**

| | Description | Cable length | Part no. | Type |
|---|---|---|---|---|
| | For I/O interface to any controller, The connection block is used for simple and clear wiring. The connection to the motor controller is established via the control cable NEBC-S2G36-... | 0.5 m | **5105646** | **NEBC-S2G36-K-0.5-N-C2W36-S7** |

**Programming cable NEBC**

| | Electrical connection 1, connector system | Electrical connection 2, connector system | Cable length | Part no. | Type |
|---|---|---|---|---|---|
| | Sub-D | RJ45 | 1.5 m | **5105645** | **NEBC-S1G9-K-1.5-N-R3G8** |

**Assortment of plugs NEKM**

| | Note on materials [1] | Part no. | Type |
|---|---|---|---|
| | RoHS-compliant | **5105647** | **NEKM-C-11** |

1) The assortment of plugs is included in the scope of delivery of the motor controller.