



## MC700

Universal motion controller für drive control tasks up to four axes

### Product Features:

- Universal motion controllers for up to 4 axes, with multiple possibilities and applications with drive systems
- Tailor-made firmware for typical drive applications available
- MC700: Unit for top hat rail mounting inside a cabinet and remote control via serial link or fieldbus
- Flash program memory for download of the desired application firmware from CD-ROM library
- Typical applications are e. g.:
  - drive synchronization
  - index & print mark control
  - label printing machines
  - rotating cross cutters
  - flying shears & saws
  - eccentric shears
  - etc.

Technical Specifications:		
<b>Power supply:</b>	Input voltage: Ripple: Consumption: Connections:	18 ... 35 VDC with reverse polarity protection ≤ 10 % at 24 VDC typ. 300 mA + 0,25 x encoder current screw terminal, 1,5 mm <sup>2</sup> / AWG 16
<b>Encoder supply:</b>	Output voltage: Output current:	5.3 ... 5.5 V (short circuit proof) max. 500 mA (total)
<b>Hardware:</b>	Microcontroller/clock frequency: Program- and data memory: Technology:	H8S / 2357 F / 20 MHz Flash Eprom 1.2 Mbyte Multilayer, high speed HCT Logic, PLD's, Microcontroller
<b>Incremental inputs:</b>	Number of inputs: Signal levels: Internal resistance: Channels: Differential voltage (RS422): Frequency: Connections:	4 RS422 / TTL, LOW = 0 ... 0.6 V, HIGH = 2.4 ... 5.0 V Ri ≈ 1 kOhm A, /A, B, /B, Z, /Z +/- 0.8 V max. 400 kHz (depends on application) male 9-pin SUB-D connector
<b>Control inputs:</b>	Number of inputs: Signal levels: Pulse time: Internal resistance: Connections:	16 PNP / HTL (24 VDC), LOW = 0 ... 5 V, HIGH = 18 ... 35 V min. 1 ms Ri ≈ 12,7 kOhm screw terminal, 1,5 mm <sup>2</sup> / AWG 16
<b>Analog inputs:</b>	Number of inputs: Voltage input: Current input: Resolution: Accuracy: Connections:	4 0 ... ±10 V (Ri ≈ 100 kOhm) as well as 0 ... ±1 V (Ri ≈ 10 kOhm) 0/4 ... 20 mA (Ri ≈ 50 Ohm) 12 bit (± 11 bit) 0.1 % screw terminal, 1,5 mm <sup>2</sup> / AWG 16
<b>Incremental output:</b>	Signal levels: Channels: Frequency: Output current: Connections:	TTL / RS422, LOW = 0 ... 0.6 V, HIGH = 2.4 ... 5.0 V Differential signals A, /A, B, /B, Z, /Z max. 400 kHz 20 mA per channel female 9-pin SUB-D connector
<b>Control outputs:</b>	Number of outputs: Output voltage: Output current: Internal resistance: Output stage: Connections:	8 5 ... 30 VDC (depends on voltage at the 24 V input) max. 70 mA Ri ≈ 10 Ohm PNP, active high screw terminal, 1,5 mm <sup>2</sup> / AWG 16
<b>Analog outputs:</b>	Number of outputs: Output voltage: Resolution: Accuracy: Connections:	4 0 ... ±10 V (Ri ≈ 100 kOhm) 12 Bit (resp. 11 +/- 1 Bit Vorzeichen) 0,1% screw terminal, 1,5 mm <sup>2</sup> / AWG 16
<b>Serial RS232 interface:</b>	Format: Baud rate: Connections:	RS232 or RS485 (not both simultaneously) 2 400, 4800, 9600, 19200, 38 400 (selectable) female 9-pin SUB-D connector
<b>CANopen interface:</b>	Norm: Connections:	DIN ISO 11898 (CANopen CiA DS301) male 9-pin SUB-D connector
<b>Indicators:</b>	6 LEDs (front side):	For status indications (depending on application)
<b>Front side switch:</b>	Slide switch:	for operation modes: R = normal mode, P = setup mode
<b>Housing:</b>	Material: Mounting: Dimensions (w x h x d): Protection class: Weight:	Aluminum top hat rail according to EN 60715 144 x 144 x 73 mm / 5.669 x 5.669 x 2.874 inch (incl. connectors) approx. 900 g IP20
<b>Temperature range:</b>	Operation: Storage:	0 °C ... +45 °C / +32 ... +113 °F (not condensing) -25 °C ... +70 °C / -13 ... +158 °F (not condensing)
<b>Failure rate:</b>	MTBF in years:	19,4 a (long-term usage at 60 °C / 140 °F)
<b>Conformity &amp; standards:</b>	EMC 2004/108/EC: Guideline 2011/65/EU:	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4 RoHS-conform