

Intelligent Motor Controller series

All the controllers of the IMC series can be programmed. The IMC series are designed for small and medium series of customized applications.

MDC2

The MDC2 is a motion control unit with an integrated 4Q amplifier. It features a microprocessor, extended I/O, large memory and a battery charger. Using a battery, it can operate during power breakdown and in emergency situations. It can solve many complicated applications. In combinations with a terminal or keyboard, like the KB300, the MDC2 is a perfect stand-alone controller and amplifier. The MDC2 can be programmed (by the customer) in Pascal based language.



Typical applications

The MDC2 is already being used for:

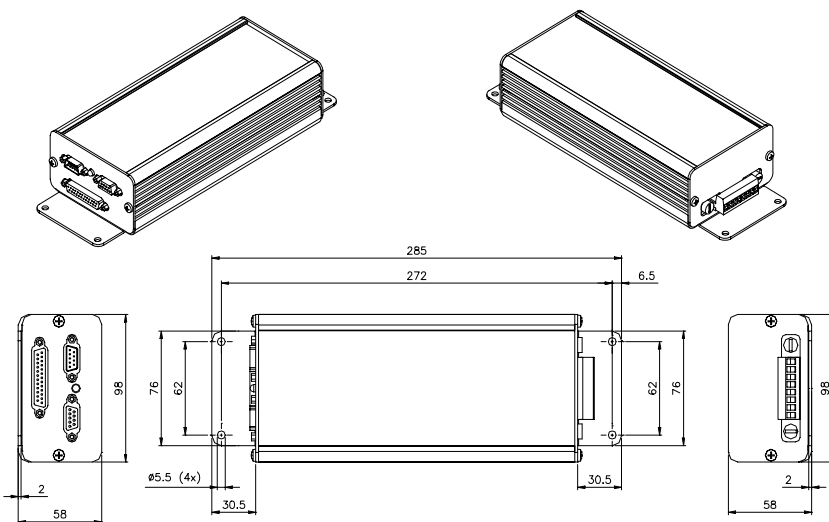
- Sophisticated door controller
- Special mixers
- Multi ax application
- Index tables
- Cutting to length machines

Inputs

- 13x digital
- incremental encoder 5/24 V
- 5 or 24 V encoder interface

Outputs

- Motor output + and –
- Battery charge 27 V
- 3x digital (100mA)



General specifications

| | | | |
|-------------------------|-----------------|----------------------------------|---------------------|
| Input voltage | 12-50 VDC | Soft start/ramping | software |
| Peak current | 20 A | Protection: | |
| Continue current | 10 A | under/over volt | yes |
| Nominal current adj. | software | thermal | yes |
| Peak current adj. | software | male conn./ short circuit | yes |
| Current limiting | software | Electronic braking | yes |
| Switching frequency | 20 kHz | Start / stop and/or direct input | software |
| Minimum load inductance | 200 µH | Screw terminal | phoenix |
| Feedback | Encoder 500 kHz | Plug connector | 9 SUBD |
| Analog control | software | Optional communication | RS232 (2x) |
| Automatic switch | | Program language/ memory size | Pascal based/ 64 kB |
| off at overload | software | Weight | 1,2 kg |



Elmeq Nederland B.V.
 Broeikweg 25
 2871 RM Schoonhoven
 The Netherlands

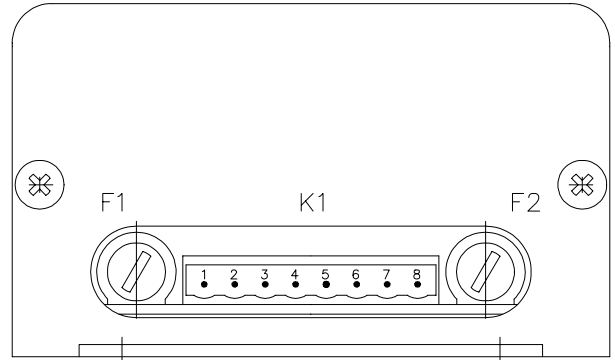
Tel +31(0)182 30 34 56
 Fax +31(0)182 38 69 20
 E-mail info@elmeq.nl
 Internet www.elmeq.nl

Ref.: MDC2E.01 Date: 7-apr-03 Replaces ref.: --
 Availability and right to change reserved

K1, 8 pins Phoenix connector

Connection supply motor

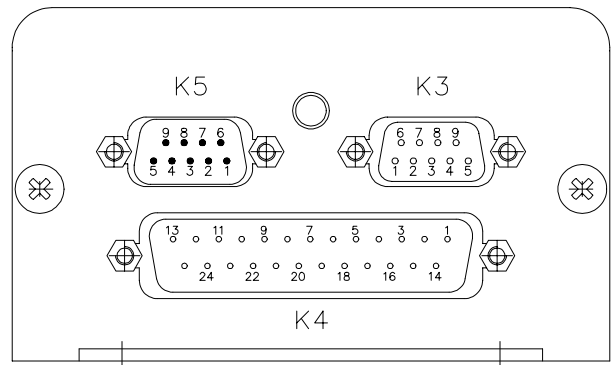
| | |
|----------------|------------------------------------|
| pin 1 :GND | :Battery ground |
| pin 2 :Batt | :Battery + |
| pin 3 :Brake | :Connection for the brake resistor |
| pin 4 :Brake | :Connection for the brake resistor |
| pin 5 :Motor A | :Motor connection A |
| pin 6 :Motor B | :Motor connection B |
| pin 7 :Usup | :Mains supply max. 50 VDC |
| pin 8 :GND | :Mains supply ground |



K5, 9 pins SubD male connector

Connection, RS232, KB300

| | |
|----------------------|----------------------------|
| pin 1 : NC | |
| pin 2 : RX channel 0 | :TX data PC terminal |
| pin 3 : TX channel 0 | :RX data PC terminal |
| pin 4 : +12VDC | :Supply KB300 |
| pin 5 : ground | :Ground KB300, PC terminal |
| pin 6 : reset | :Reset MDC2 |
| pin 7 : TX channel 1 | :to RX data KB300 |
| pin 8 : RX channel 1 | :to TX data KB300 |
| pin 9 : +5VDC | |



K3, 9 pins SubD female connector

Connection encoder

| | |
|--------------------|------------------------------------|
| pin 1 : GND | :Ground |
| pin 2 : Encoder /A | :/ encoder A, for balanced encoder |
| pin 3 : Encoder /Z | :/ encoder Z, for balanced encoder |
| pin 4 : Encoder B | :Encoder B |
| pin 5 : +5VDC | :5V encoder supply encoder |
| pin 6 : Encoder /B | :/ encoder B, for balanced encoder |
| pin 7 : +24VDC | :24V encoder supply |
| pin 8 : Encoder Z | :Encoder Z |
| pin 9 : Encoder A | :Encoder A |

Connector K4 25 pins Sub-D female connector

Connections in- and outputs

| | | | |
|-------------------|-----------|-------------------|--|
| pin 1 : Reserved | | pin 14: Reserved | |
| pin 2 : Reserved | | pin 15: Reserved | |
| pin 3 : solenoid | :solenoid | pin 16: Ground | :ground |
| pin 4 : solenoid | :solenoid | pin 17: +12/24VDC | :programmable +12/24VDC supply for sensors |
| pin 5 : Input 7 | :input | pin 18: Input 6 | :input |
| pin 6 : Input 10 | :input | pin 19: Input 8 | :input |
| pin 7 : Input 11 | :input | pin 20: Input 5 | :input |
| pin 8 : Input 12 | :input | pin 21: Input 0 | :input |
| pin 9 : Output 2 | :input | pin 22: Input 1 | :input |
| pin 10 : Output 0 | :input | pin 23: Input 3 | :input |
| pin 11 : Output 1 | :input | pin 24: Input 9 | :input |
| pin 12 : Input 4 | :input | pin 25: Input 2 | :input |
| pin 13: Ground | :ground | | |



ELMEQ

Member of the ERIKS group

Elmeq Nederland B.V.
 Broeikweg 25
 2871 RM Schoonhoven
 The Netherlands

Tel +31(0)182 30 34 56
 Fax +31(0)182 38 69 20
 E-mail info@elmeq.nl
 Internet www.elmeq.nl