

## General Purpose I/O Option MCB101

### □ Introduction

This instruction describes the General Purpose I/O option MCB101 for use in the FC 300 series, expanding the number of input/output in the frequency converter.

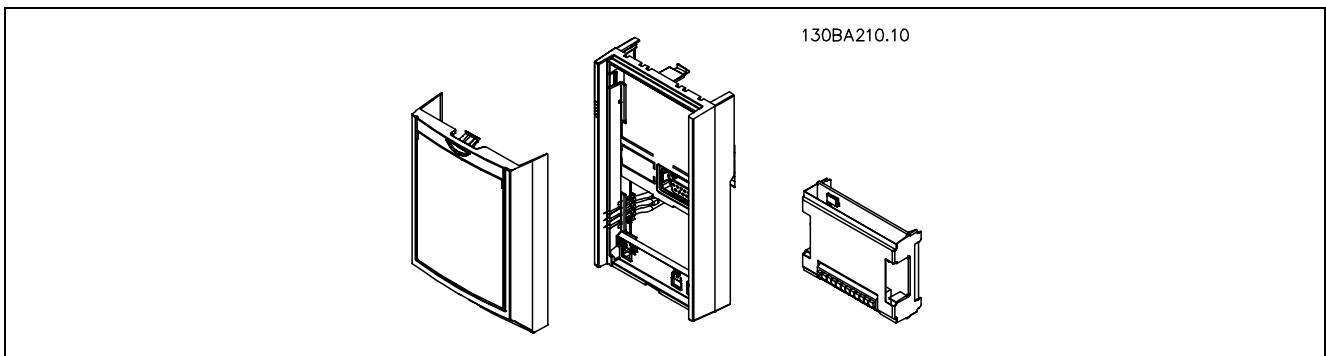
The MCB101 option includes 3 digital inputs, 2 analog inputs, 2 digital outputs and 1 analog output.

SW firmware version to be installed in the drive control card must be version 3.00 or later versions. Check parameter 15-43 for firmware version.

### □ Code Numbers To Be Used At Ordering The Complete Kit For Upgrades

Standard version code no. 130B1125.

Coated version code no. 103B1212.



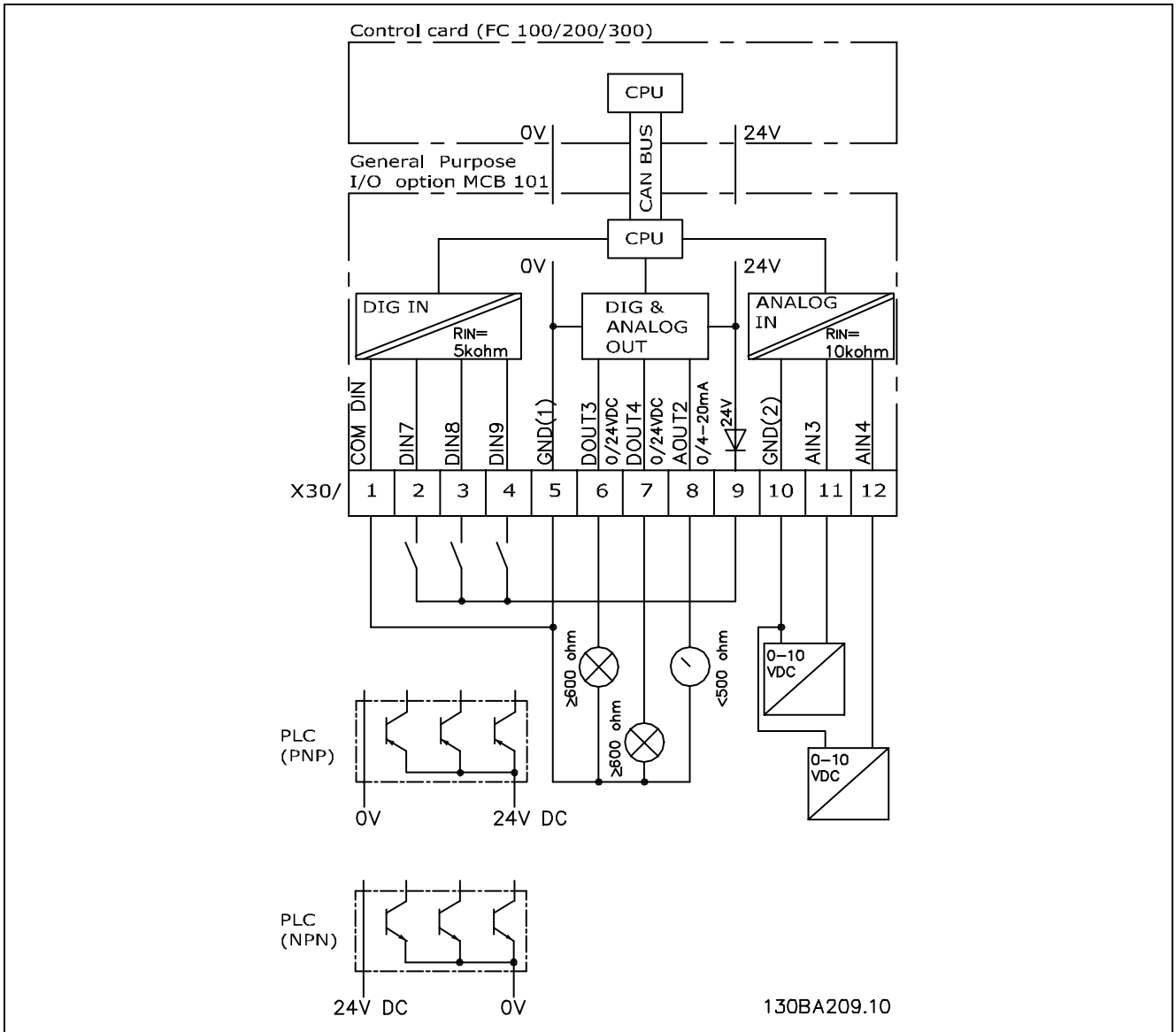
Parts for coated/non-coated code nos.

### □ General technical data

#### □ Galvanic Isolation In The MCB101

Digital/analog inputs are galvanically isolated from other inputs/outputs on the MCB101 and in the control card of the drive. Digital/analog outputs in the MCB101 are galvanically isolated from other inputs/outputs on the MCB101, but not from these on the control card of the drive.

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Principle Diagram

□ Digital inputs - Terminal X30/1-4

Parameters for set-up: 5-16, 5-17 and 5-18

Number of digital inputs	Voltage level	Voltage levels	Input impedance	Max. load
3	0-24 V DC	PNP type: Common = 0 V Logic "0": Input < 5 V DC Logic "1": Input > 10 V DC NPN type: Common = 24 V Logic "0": Input > 19 V DC Logic "1": Input < 14 V DC	Approx. 5 K ohm	± 28 V continuous ± 37 V in minimum 10 sec.

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□ **Analog voltage inputs - Terminal X30/10-12**

Parameters for set-up: 6-3\*, 6-4\*, 16-75 and 16-75

Number of analog voltage inputs	Standardised input signal	Input impedance	Resolution	Max. load
2	0-10 V DC	Approx. 5 K ohm	10 bits	± 20 V continuously

□ **Digital outputs - Terminal X30/5-7**

Parameters for set-up: 5-32 and 5-33

Number of digital outputs	Output level	Tolerance	Max. load
2	0 or 24 V DC	± 4 V	≥ 600 ohm

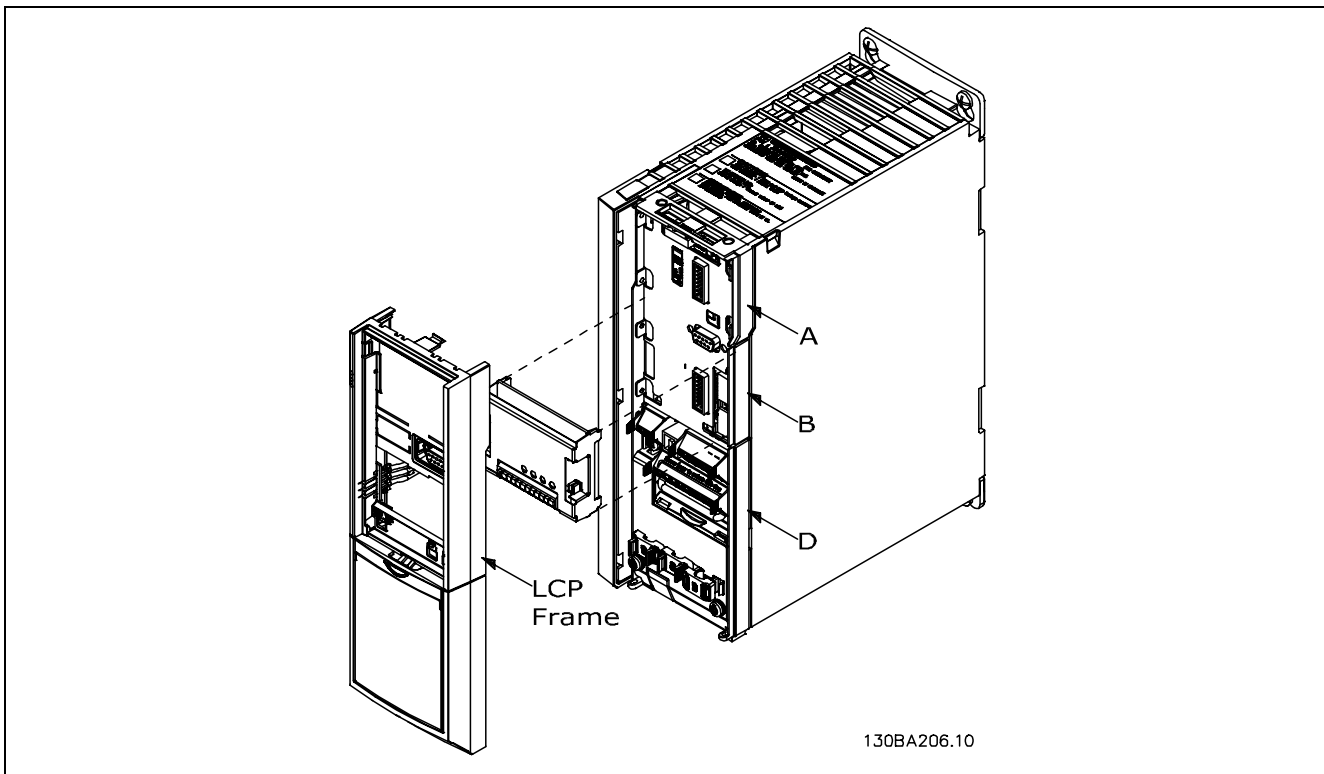
□ **Analog outputs - Terminal X30/5+8**

Parameters for set-up: 6-6\* and 16-77

Number of analog outputs	Output signal level	Tolerance	Max. load
1	0/4 - 20 mA	± 0.1 mA	< 500 ohm

□ **Mounting Guidelines**

□ **Mounting Guidelines - Step By Step**



How To Fit The MCB101 Option In Slot B

These step-by-step instructions describe how to mount the control cables:

- The power to the frequency converter must be disconnected.
- Remove the LCP (Local Control Panel), the terminal cover, and the LCP frame from the frequency converter.
- Fit the MCB101 option card into slot B.
- Connect the control cables and relieve the cable by the enclosed cable strips.

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- Remove the knock out in the extended LCP frame, so that the option will fit under the extended LCP frame.
- Fit the extended LCP frame and terminal cover.
- Fit the LCP or blind cover in the extended LCP frame.
- Connect power to the frequency converter.
- Set up the input/output functions in the corresponding parameters, as mentioned in the section *General Technical Data*.

**□ How To Mount Cables**

The graphic below illustrates how to mount the cables.

