



Mounting Instruction

General Purpose I/O Option MCB101

VLT® AutomationDrive FC 300



design award
winner
2004

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.

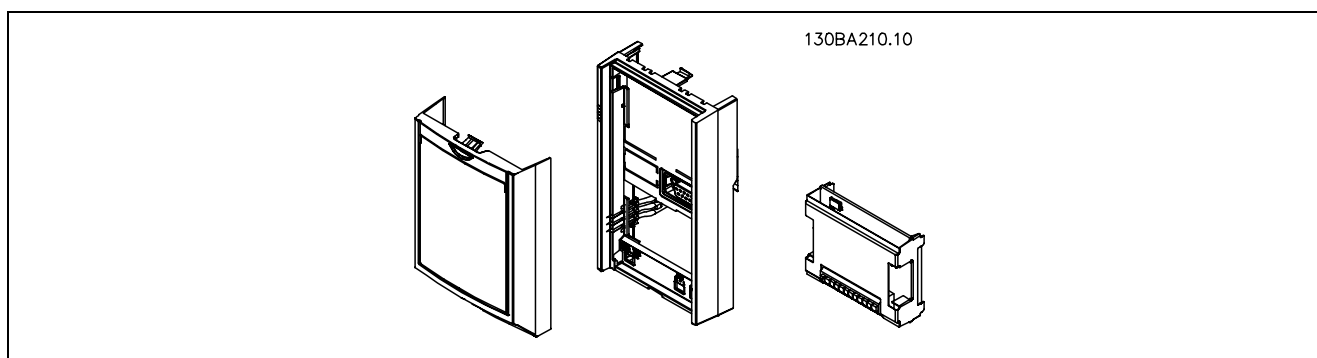
The MCB101 option includes 3 digital inputs, 2 analog inputs, 2 digital outputs and 1 analog output.

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.



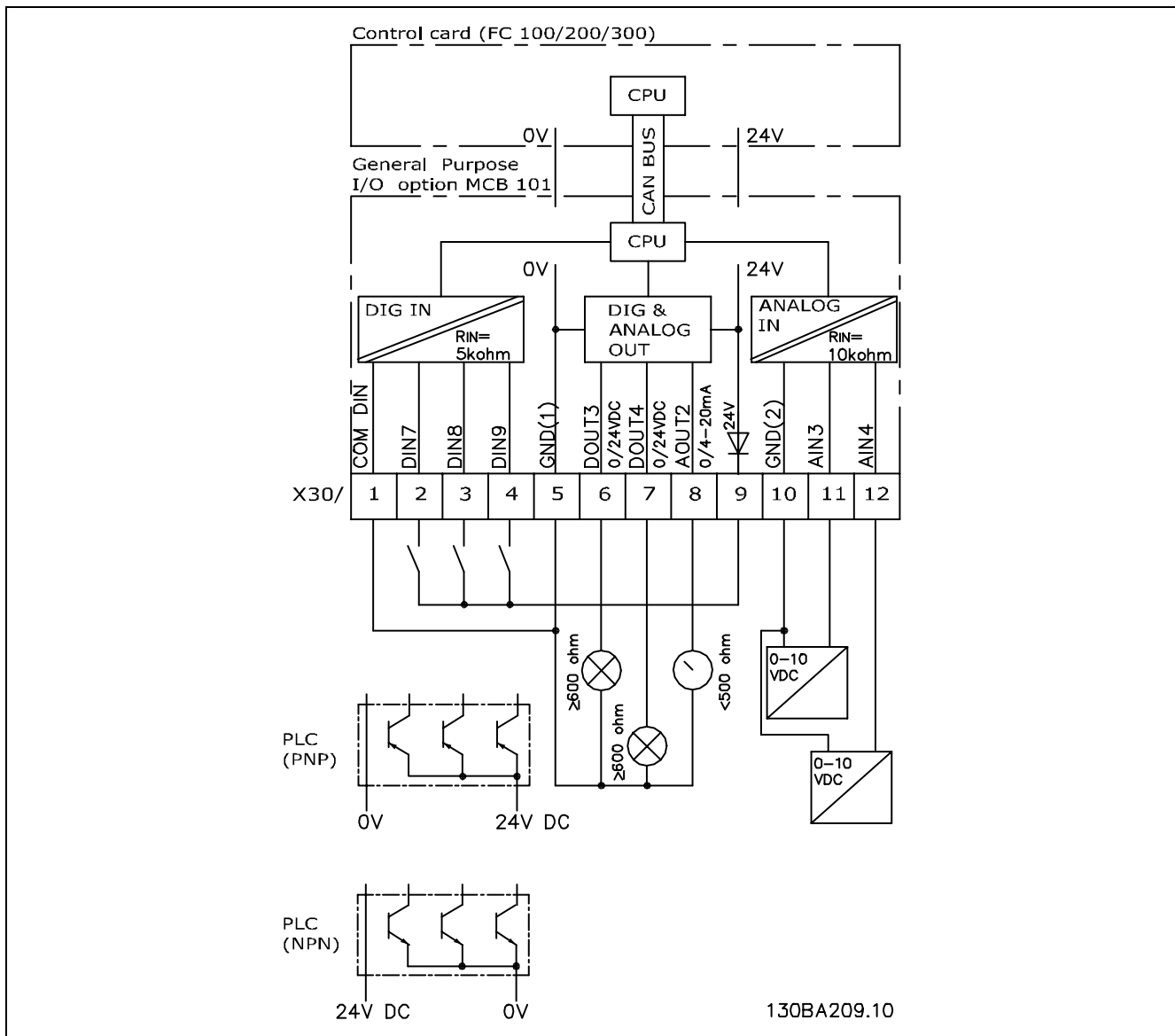
Parts for coated/non-coated code nos.

□ 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.

— General Purpose I/O Option MCB101 —



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.

— General Purpose I/O Option MCB101 —

□ **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

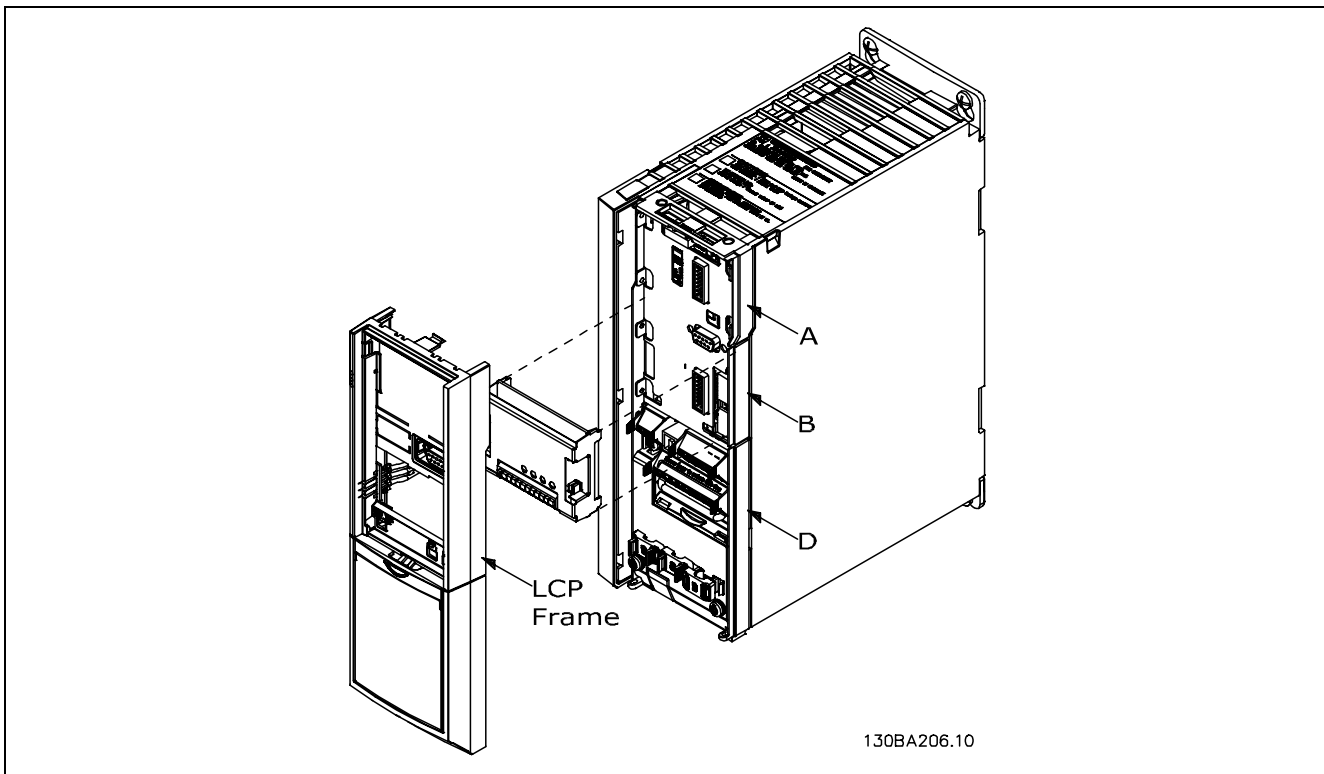
□ **Analog outputs - Terminal X30/5+8**

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:

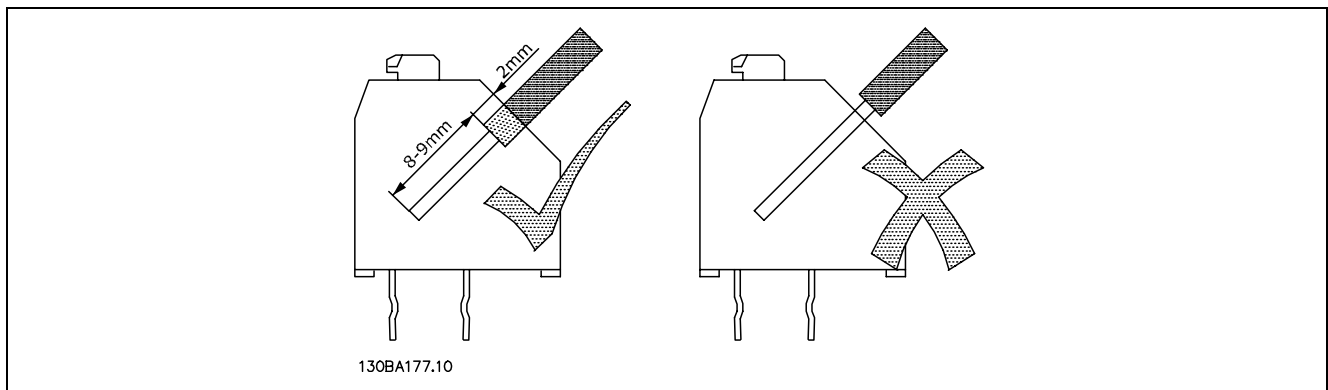
- The power to the frequency converter must be disconnected.
- Remove the LCP (Local Control Panel), the terminal cover, and the LCP frame from the frequency converter.
- Fit the MCB101 option card into slot B.
- Connect the control cables and relieve the cable by the enclosed cable strips.

— General Purpose I/O Option MCB101 —

- 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.





www.danfoss.com/drives

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

