

■ Encoder Option MCB 102

The encoder module can be used as feedback source for closed loop Flux control (par. 1-02) as well as closed loop speed control (par. 7-00). Configure encoder option in parameter group 17-xx

Used for:
• VVC ^{plus} closed loop
• Flux Vector Speed control
• Flux Vector Torque control
• Permanent magnet motor

Supported encoder types:

Incremental Encoder: 5 V TTL type, RS422, max. frequency: 410 kHz

Incremental Encoder: 1Vpp, Sine-Cosine

Hiperface® Encoder: Absolute and Sine-Cosine (Stegmann/SICK)

EnDat Encoder: Absolute and Sine-Cosine (Heidenhain) Supports version 2.1

SSI Encoder: Absolute

Encoder monitor:

The 4 encoder channels (S, B, Z and D) are monitored, open and short circuit can be detected.

There is a green LED for each channel which lights up when the channel is OK.



NB!

The LEDs are only visible when removing the LCP. Reaction in case of an encoder error can be selected in par. 17-61: None, Warning or Trip.

When the encoder option kit is ordered separately the kit includes:

- Encoder module MCB 102
- Enlarged LCP fixture and enlarged terminal cover

The encoder option does not support FC 302 frequency converters manufactured before week 50/2004.

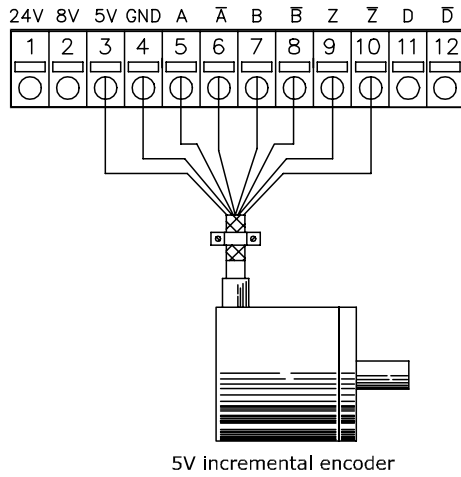
Min. software version: 2.03 (par. 15-43)

Connector Designation X31	Incremental Encoder (please refer to Graphic A)	SinCos Encoder Hiperface® (please refer to Graphic B)	EnDat Encoder	SSI Encoder	Description
1	NC	NC	NC	24 V	24 V Output (21-25 V), I _{max} : 125 mA
2	NC	8 VCC	NC	NC	8 V Output (7-12 V, I _{max} : 200 mA)
3	5 VCC	NC	5 VCC	5 V	5 V Output (5 V ± 5%, I _{max} : 200 mA)
4	GND	+COS	GND	GND	GND
5	A input	REFCOS	+COS	A input	A input
6	A inv input	NC	REFCOS	A input inv.	A inv input
7	B input	+SIN	+SIN	B input	B input
8	B inv input	REFSIN	REFSIN	B input inv.	B inv input
9	Z input	+Data RS485	Clock out	Clock out	Z input OR +Data RS485
10	Z inv input	-Data RS485	Clock out inv.	Clock out inv.	Z input OR -Data RS485
11	NC	NC	Data in	Data in	Future use
12	NC	NC	Data in inv.	Data in inv.	Future use

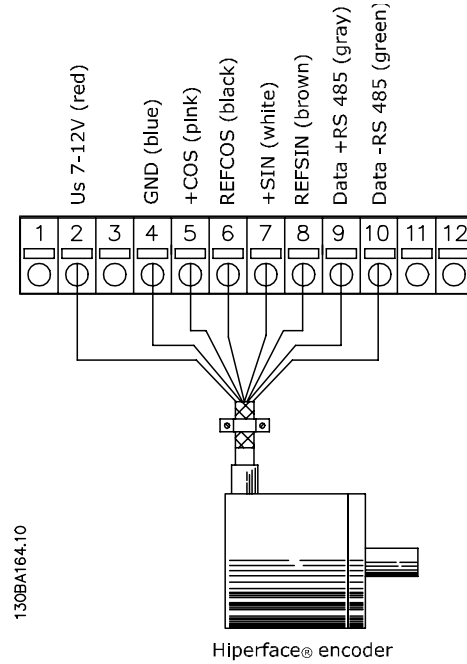
Max. 5V on terminal 12.

VLT® AutomationDrive FC 300

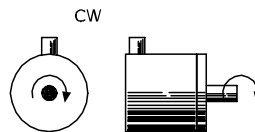
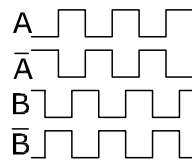
130BA163.10



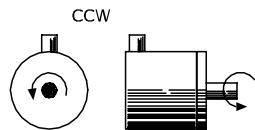
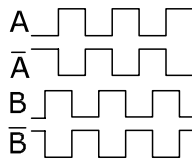
Max. cable length 150 m.



130BA164.10



130BA119.10



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