

Encoder Option MCB 102

The encoder module can be used as feedback source for closed loop Flux control (*1-02 Flux Motor Feedback Source*) as well as closed loop speed control (*7-00 Speed PID Feedback Source*). Configure encoder option in parameter group *17-** Motor Feedb.Option*

Used for:

- VVC^{plus} closed loop
- Flux Vector Speed control
- Flux Vector Torque control
- Permanent magnet motor

Supported encoder types:

Incremental Encoder: 5V and 10-30V 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.

NOTE

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

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

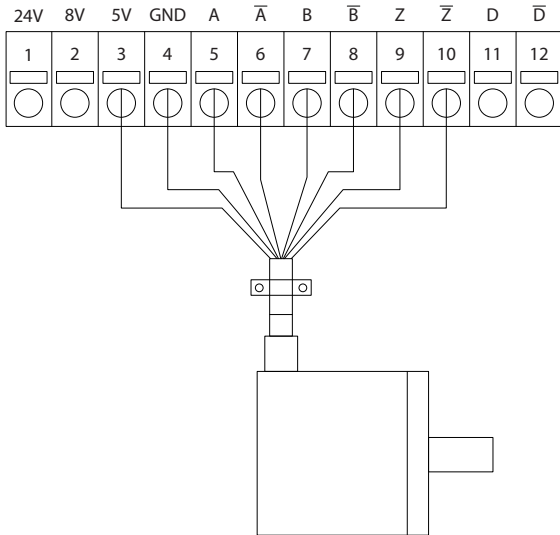
- Encoder module MCB 102
- Enlarged LCP fixture and enlarged terminal cover

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

Min. software version: 2.03 (*15-43 Software Version*)

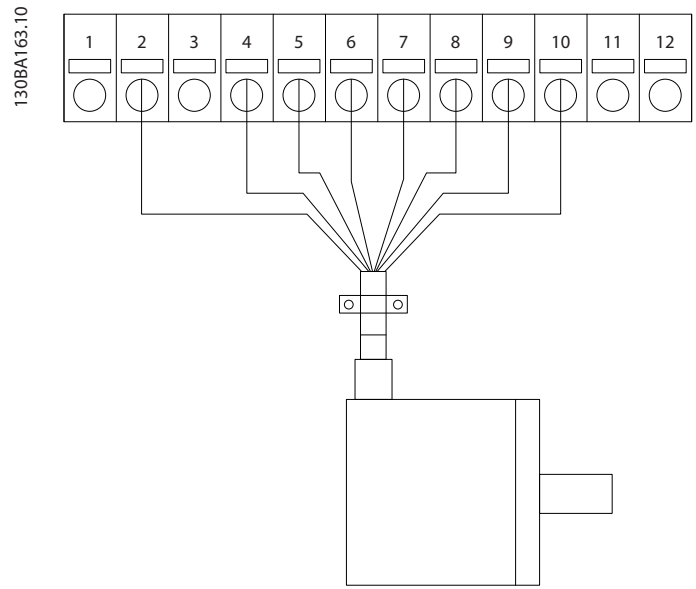
Connector Designation X31	Incremental Encoder (please refer to Graphic A)	SinCos Encoder Hiperface® (please refer to Graphic B)	EnDat Encoder
1	NC	NC	NC
2	NC	8 VCC	NC
3	5 VCC	NC	5 VCC
4	GND	GND	GND
5	A input	+COS	+COS
6	A inv input	REFCOS	REFCOS
7	B input	+SIN	+SIN
8	B inv input	REFSIN	REFSIN
9	Z input	+Data RS485	Clock out
10	Z inv input	-Data RS485	Clock out inv.
11	NC	NC	Data in
12	NC	NC	Data in inv.

Max. 5V on terminal 12

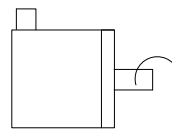
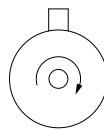
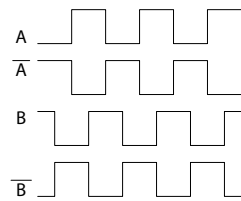


5V incremental encoder

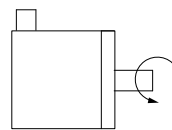
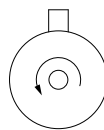
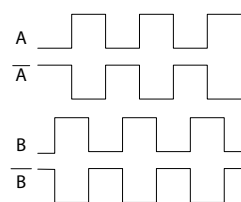
Max. cable length 150m.



Hiperface® encoder



130BA 119.10



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