SinCos Encoder Module User Guide

Overview

This option module is specifically designed to be used with the Optidrive P2 Elevator variable speed drive product and is intended for professional incorporation into complete equipment or systems. If installed incorrectly it may present a safety hazard. Before commencing installation and commissioning, the user should ensure they are fully familiar with the Optidrive Elevator, and in particular have read the important safety information and warnings contained in the Optidrive Elevator User Guide.

Note

This User Guide is intended to be used with Optidrive Elevator firmware version 2.10 or later. The firmware version of the drive can be displayed in parameter P0-28. Previous versions of firmware can be upgraded using Optitools Studio PC software. Contact your local Invertek Sales Partner for further Information.

Available Functions

The SinCos Encoder Module Interface is intended to be installed in the Optidrive option slot, and allows the Optidrive to be connected to a SinCos Encoder of the following types :-

ERN 1387

Compatibility

This Option is suitable for use on the following product ranges:

Optidrive Elevator "ODL-2-…."

Model Code

OPT-2-SINCOS2-IN

Invertek Drives Ltd
Offa's Dyke Business Park
Welshpool
Powys, UK
SY21 8JF

82-SINCOS-IN-V1.02

Layout

LED	Function
A	Power Status
B	Error Status

Power Status LED A (GREEN)

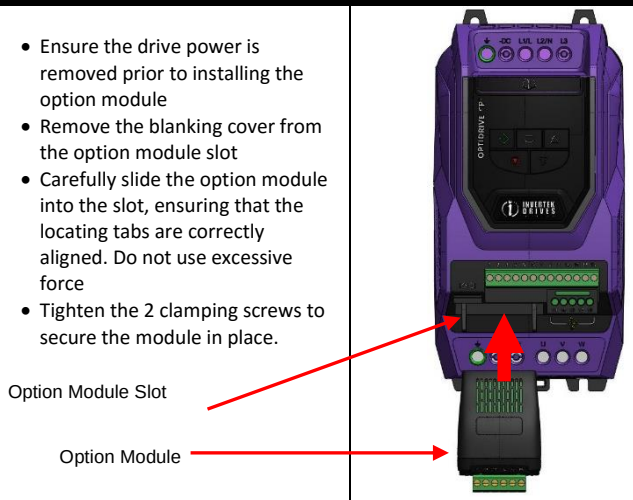
State	Indication
Off	No Power
On	Module Powered up

Error Status LED B (RED)

State	Indication
Off	Normal Operation
On	No Signals connected/received
Flash	Error (See Fault messages below)

Installation

- Ensure the drive power is removed prior to installing the option module
- Remove the blanking cover from the option module slot
- Carefully slide the option module into the slot, ensuring that the locating tabs are correctly aligned. Do not use excessive force
- Tighten the 2 clamping screws to secure the module in place.



Wiring Connections

Terminal	SinCos Connection
1	+5V Supply to Encoder
2	0V
3	C+
4	C-
5	D+
6	D-
*7	A+
*8	A-
*9	B+
*10	B-
11	Shield/Screen

Terminal	Simulated Encoder Output
12	0V
13	A_P (Out)
14	A_N (Out)
15	B_P (Out)
16	B_N (Out)
17	Shield/Screen
18	Brake 1
19	Brake 2

*Only connect if Simulated Encoder output function (terminals 13 - 16) is needed.

Optidrive Elevator Parameter setup

The Optidrive Elevator operating instructions (as provided with the drive) should be referred to for parameter setup or alternatively it can be downloaded from the invertek website www.invertekdrives.com.

Fault Messages (Encoder Module specific)

Enc-01	Encoder communication /data loss
Enc-02 SP-Err	Encoder Speed Error. The error between the measured encoder feedback speed and the Optidrive P2 Elevator drive estimated rotor speed is greater than the pre-set limit allowed.
Enc-03	Incorrect Encoder PPR count set in parameters
Enc-07	Encoder Communication loss (check Encoder wiring Connections and that encoder module is pushed fully into the option slot of the drive)

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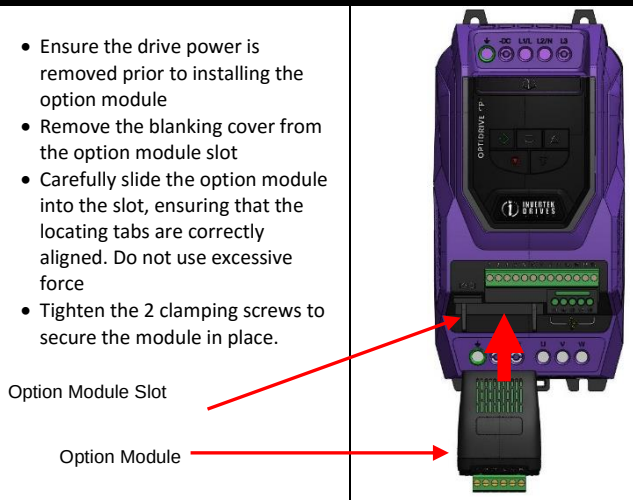

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