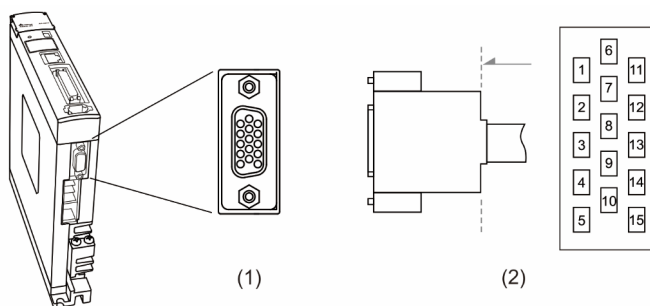


3.9 - CN5 CONNECTOR

For machine position feedback, applicable to full-closed loop. A full-closed loop servo system refers to one that has a secondary external encoder feedback for closing the position loop of the feedback algorithm versus relying on the motor encoder for position. This is useful when very high precision is needed in positioning the load. This external encoder is often a linear tape encoder (linear scale) and directly detects the position of the load. Some other examples of using an external linear scale are removing backlash from the performance of the application or compensating for lead screw pitch error.

A half-closed loop (or semi-closed) is what almost all servo motor applications use. The velocity and position loops are both closed using the encoder on the back of the motor. If you are unsure if you need a linear tape encoder for your application then most likely you do not. The CN5 connects to an external encoder (A, B, and Z) and forms a full-closed loop with the servo system.



(1) CN5 connector (female) (2) CN5 connector (male)

Pin assignment:

Pin Number	Color	Signal	Function
1	Black/White	Opt_/Z	/Z phase input
2	Blue/White	Opt_/B	/B phase input
3	Blue	Opt_B	B phase input
4	Green	Opt_A	A phase input
5	Green/White	Opt_/A	/A phase input
6	Yellow Yellow/Black	GND	Encoder grounding
7	Red/White	GND	Encoder grounding
8	Red	+5V	Encoder power
9	Black	Opt_Z	Z phase input
10	Orange	Reserved	Reserved
11	Orange/White	Reserved	Reserved
12	Brown	Reserved	Reserved
13	Brown/White	Reserved	Reserved
14	Purple	Reserved	Reserved
15	Purple/White	Reserved	Reserved



NOTE: This only supports AB phase signal and an encoder of 5V. The maximum single-phase (Phase A or Phase B) pulse frequency for the encoder cannot exceed 1MHz.



NOTE: Use ZL-HD15M-CBL-DB15F cable + ZL-RTB-DB15 ZIPLink breakout board, or use ZL-HD15M-CBL-2P cable (HD15 to flying leads).



WARNING: DO NOT USE A STANDARD VGA HD15 CABLE. THE TYPICAL VGA CABLE DOES NOT INCLUDE A CONNECTION ON PIN 8.

Wiring
Parameters
DI/DO Codes
Monitoring
Alarms