

2-wire Encoder Interface Adapters

1. Introduction

The 2-wire Encoder Interface Adapters allow 2-wire encoders (for example, EnDat 3 encoders) to be connected to the P1 position feedback interface on Unidrive M (including Elevator E300) or Digitax HD drives. 2-wire encoders use a single pair of conductors for the power supply to the encoder and for data connections. Two versions of the interface boards exist for the different drive types as follows:

824000000230002-wire Encoder Interface Adapter (Unidrive M) (EIB-2WIRE-M70X)

827000000205002-wire Encoder Interface Adapter (Digitax HD) (EIB-2WIRE-M75X)

These interface adapters do not provide access to the P2 position feedback interface or the encoder simulation output on the 15-way D-type on the drive.

2. Installation

The 2-wire Encoder Interface Adapters are designed to be installed directly on to the 15-way D-type connector on the drive. Ensure the screws are used to fix the adapter to the 15-way D-type connector.

Figure 2-1 2-wire Interface Adapter (Unidrive M)

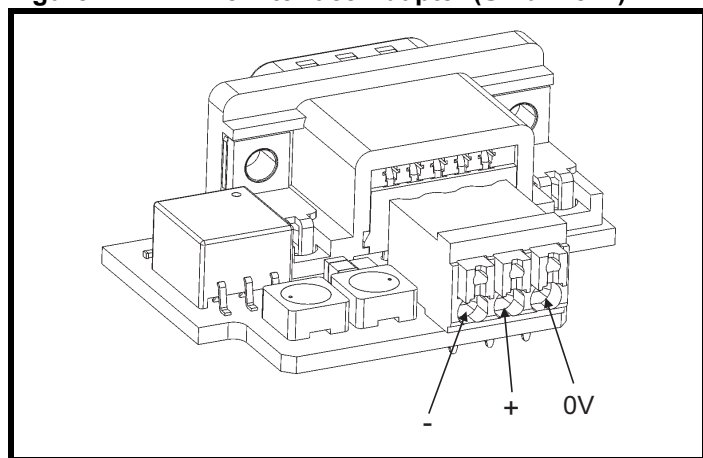
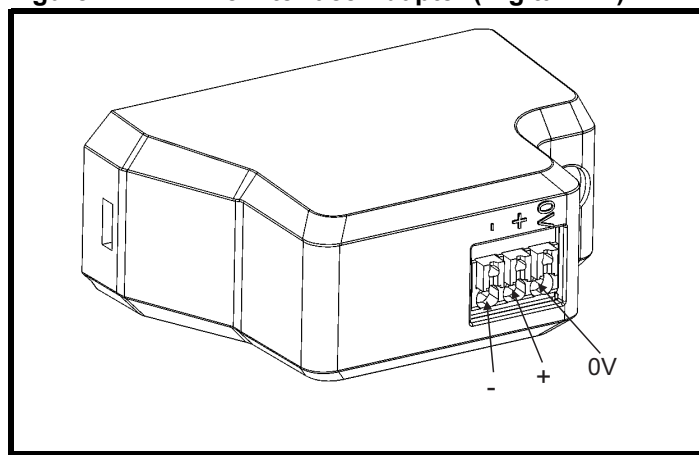


Figure 2-2 2-wire Interface Adapter (Digitax HD)



3. User connections

The user terminals are via push-in, spring cage connections.

| User terminal | Description |
|---------------|--|
| - | Encoder power supply 0V and DATA- connection (P_SD-) |
| + | Encoder power supply +V and DATA+ connection (P_SD+) |
| 0V | Screen/shield connection |

4. Drive requirements

There are hardware and firmware requirements for EnDat 3 support as follows.

Firmware

Vxx.60.00.00 firmware or later is required for EnDat 3 support.

Hardware

Control Board Identifier (11.067) (or L79 for Elevator E300) indicates whether the drive hardware supports EnDat 3. This parameter has the format A.BCD. If B set to a value of 1 or more, it indicates that the drive hardware supports EnDat 3. If B is set to zero and the firmware is Vxx.60.00.00 or later, then it indicates that the hardware does not support EnDat 3.

5. Parameter settings for EnDat 3

The parameter settings required for EnDat 3 are as follows. No further encoder setup is required.

P1 Device Type (03.038) (or C01 for E300) = EnDat 3 (21)
P1 Supply Voltage (03.036) (or C04 for E300) = Set as per encoder specification



6. Block diagram

Figure 6-1 2-wire Encoder Interface Adapter block diagram

