



# Table Of Contents

<b>CABLE GUIDELINES</b>	<b>PAGE</b>
Precautions	3
Design Specifications	3
<b>CABLE ASSEMBLY DRAWING</b>	
Assembly Details	4
<b>CONTACT INFORMATION</b>	
Contact MicroE Systems	Back Cover

# Precautions

Do not connect pins labeled "Reserved" on the interpolator interface drawing

Ground connects from the extension cable connector the the extension cable must be properly mated to ensure proper EMI immunity of encoder systems

## Design Specifications

### 1.DESRIPTION

Tinned copper, 4 twisted pair cable suitable for EIA RS-422 and RS232 Application. Beldon Cable number 9831 or equivalent

### 2. ELECTRICAL CHARACTERISTICS

- 2.1 Voltage rating: 30V minimum
- 2.2 Temperature rating: 80°C
- 2.3 UL AWM Style 2919
- 2.4 Nominal Impedance 100 ohms
- 2.5 Velocity of Propagation 66%
- 2.6 Nominal Capacitance 50.9pF/m

### 3. CONDUCTORS

- 3.1 Material: tinned copper
- 3.2 8 conductors (4 twisted pairs), color coded
- 3.3 24AWG (7/32)
- 3.4 24 Ohms/km
- 3.5 Nominal Impedance 100 ohms
- 3.6 Conductor Color pairing are as follows:

#### Twisted Pair No.1

White/Blue Stripe  
Blue/White Stripe

#### Twisted Pair No.2

White/Orange Stripe  
Orange /White Stripe

#### Twisted Pair No.3

White/Green Stripe  
Green/White Stripe

#### Twisted Pair No.4

White/Brown Stripe  
Brown/White Stripe

### 4. INSULATION

- 4.1 Conductor Material: Polyethylene or equivalent
- 4.2 Overall Jacket Material PVC

### 5. SHIELDING

- 5.1 Overall Two shield system
- 5.2 Shield one, made of Aluminum Polyester
- 5.3 Shield two, made of tinned copper braid (65% coverage)
- 5.4 Overall shield resistance:14.4 ohms/km

### 6. MECHANICAL

- 6.1 Overall Cable Diameter .330
- 6.2 Color: Chrome



## Contact MicroE Systems

Thank you for purchasing a MicroE product. You should expect the highest level of quality and support from MicroE. If you want to download the Mercury Encoder Installation Manual, Data Sheet or Interface Drawing, or have any questions, browse [www.microesys.com](http://www.microesys.com) to find the information you need. Refer to the Mercury Data Sheets and User's Guide sections.

