

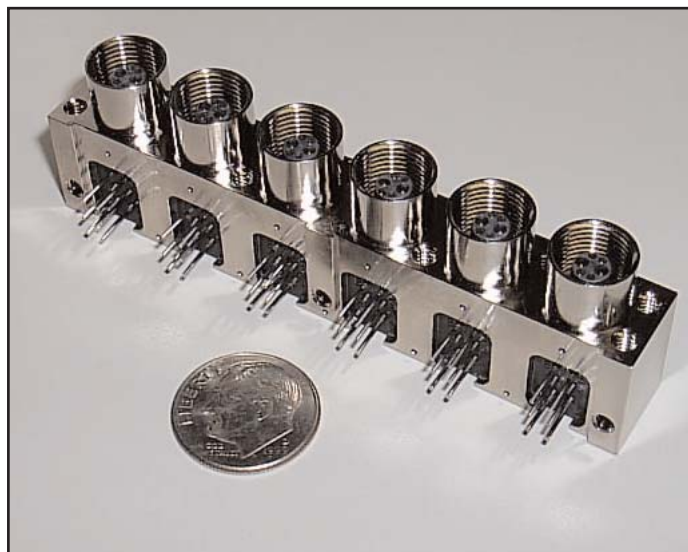
# Serial Bus Connector Block & Cable Assemblies

## CONNECTOR BLOCK DESCRIPTION

- Connector system comes with a six port right-angle header for PCB mount or front bulkhead mount
- Connector system consists of 22-2 AWG and 24-4 AWG pin and socket contacts for data signal and power transmission
- Also available in standard MQR series interface with threaded coupling

## APPLICATIONS

- Compatible with space environment, where small size and light weight are major concerns
- Fine pitch thread is ideal when shielding out EMI emissions and RFI noise
- Ideal for high speed data transmission applications



Revised 05/05 1773101

## KEY FEATURES

- 11 ground posts for superior electrical bonding to PCB
- Accommodates both PCB mount and bulkhead mount applications
- Qualified to National Polar-orbiting Operational Environmental Satellite System (NPOESS) for IEEE 1394 connectors and cables
- Keyed for polarization
- No assembly required
- No application tooling required

## ELECTRICAL

- |                                    |   |                             |                                      |
|------------------------------------|---|-----------------------------|--------------------------------------|
| • Power contacts:                  | 5 Amps max. current                                   | • Insulation Resistance:    | 5000 megohms                         |
| • Signal contacts:                 | 3 Amps max. current                                   | • Characteristic Impedance: | 100 $\pm$ 20 $\Omega$                |
| • Dielectric withstanding voltage: | 600 VAC @ sea level,<br>150 VAC @ 70,000 ft. altitude | • Attenuation:              | 1.91 to 3.96 dB at<br>100 to 400 MHz |

## MECHANICAL

- |                    |                 |                                  |                           |
|--------------------|-----------------|----------------------------------|---------------------------|
| • Mating cycles:   | 500 minimum     | • Contact mating/unmating force: | 6.0 oz. max/0.50 oz. min. |
| • Coupling torque: | 20 in.-lb. max. | • Connector mating force:        | 60 oz. max.               |

## MATERIALS

- |          |  |                 |                            |
|----------|--|-----------------|----------------------------|
| • Shell: | Nickel plated aluminum<br>Cadmium plating optional<br>(consult Tyco Electronics) | • Insulator:    | LCP thermoplastic          |
|          |  | • Contacts:     | Gold plated copper alloy   |
|          |  | • Solder posts: | Solder plated copper alloy |

## FOR MORE INFORMATION

### Technical Support

Phone: 1-800-522-6752  
Internet: [www.tycoelectronics.com](http://www.tycoelectronics.com)  
E-mail: [newproducts@tycoelectronics.com](mailto:newproducts@tycoelectronics.com)

USA: 1-800-522-6752  
Canada: 1-905-470-4425  
Mexico: 01-800-733-8926  
C. America: 52-55-5-792-0425

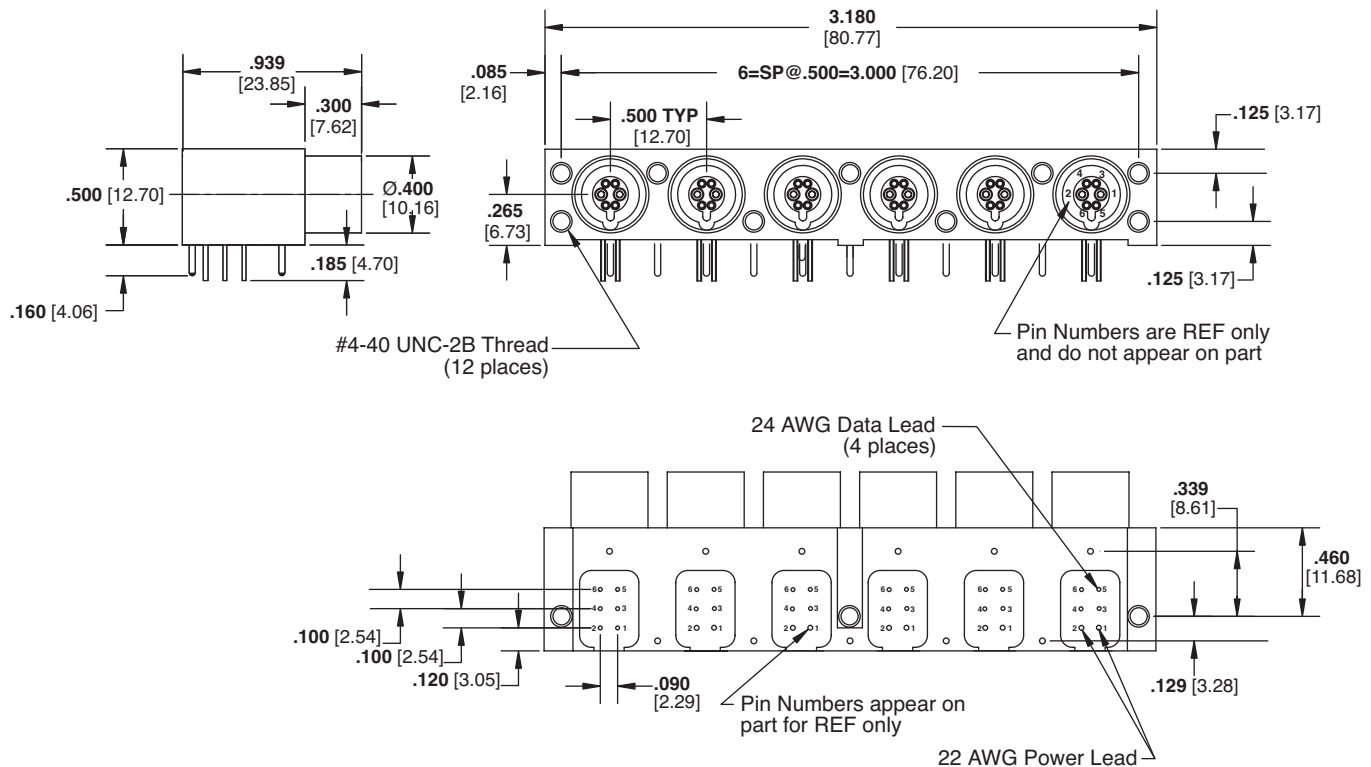
South America: 55-11-3611-1514  
Hong Kong: 852-2735-1628  
Japan: 81-44-844-8013  
UK: 44-141-810-8967

# Serial Bus Connector Block & Cable Assemblies

## STANDARDS & SPECS

- NPOESS 1394 Connector and Cable Assemblies
- IEEE 1394 Standard for High-Performance Serial Bus

## PRODUCT DIMENSIONS



## PRODUCT OFFERING

- Connector Block: 9-1532159-9
- Shorting Cap: 2-1532164-9 (sold separately)

# Serial Bus Connector Block & Cable Assemblies

## CABLE ASSEMBLIES DESCRIPTION

- Connector system consists of 22-2 AWG and 24-4 AWG pin and socket contacts for data signal and power transmission
- Receptacle connector is a duplicate of the mating interface of NPOESS Connector Block ports and Plug connector is the mating interface to the receptacle connector, allowing for easy daisy-chaining of cable assemblies
- Bulkhead connectors are Male/Male or Male/Female feed-thru type, capable of withstanding 1x10<sup>-7</sup> cc/sec leakage for use in atmospheric chamber applications; lower leakage rates are available. Contact Tyco Electronics.
- Connector system also available in standard MQR Series interface with threaded coupling



Receptacle Connector  
(Pin contacts)



Plug Connector  
(Socket contacts)

## APPLICATIONS

- Compatible with space environment, where small size and light weight are major concerns
- Fine pitch thread is ideal when shielding out EMI emissions and RFI noise
- Ideal for high speed data transmission applications
- Plug and receptacle can be used as connector savers during build-up and test of cable assemblies and/or connector blocks



Feed-Thru Adapter,  
Front Mount  
Male/Male Shown  
(Male/Female available)

## KEY FEATURES

- Cable assemblies available in any convenient length, specified by the customer
- Plug/receptacle interfaces are identical throughout the product offering
- Plugs and receptacles are keyed for polarization
- Pin contacts are recessed so that socket contacts are engaged in the insulator before engaging the contact pins
- Qualified to National Polar-orbiting Operational Environmental Satellite System (NPOESS) for IEEE 1394 connectors and cables
- Bulkhead feed-thru allows for use in differential pressure applications, such as vacuum chambers
- Feed-thru connector interfaces are identical to plug and receptacle interfaces and are 100% interchangeable

## ELECTRICAL

- Power contacts: 5 Amps max. current
- Signal contacts: 3 Amps max. current
- Dielectric withstanding voltage: 600 VAC @ sea level, 150 VAC @ 70,000 ft. altitude

- Insulation Resistance: 5000 megohms
- Characteristic Impedance: 100 ± 20Ω
- Attenuation: 1.91 to 3.96 dB at 100 to 400 MHz

## MECHANICAL

- Mating cycles: 500 minimum
- Coupling torque: 20 in-lb. max.

- Contact mating/unmating force: 6.0 oz. max/0.50 oz. min.
- Connector mating force: 60 oz. max.

## MATERIALS

- Shell: Nickel plated aluminum  
Cadmium plating optional  
(consult Tyco Electronics)

- Insulator: LCP thermoplastic
- Contacts: Gold plated copper alloy
- Solder posts: Solder plated copper alloy

## STANDARDS & SPECS

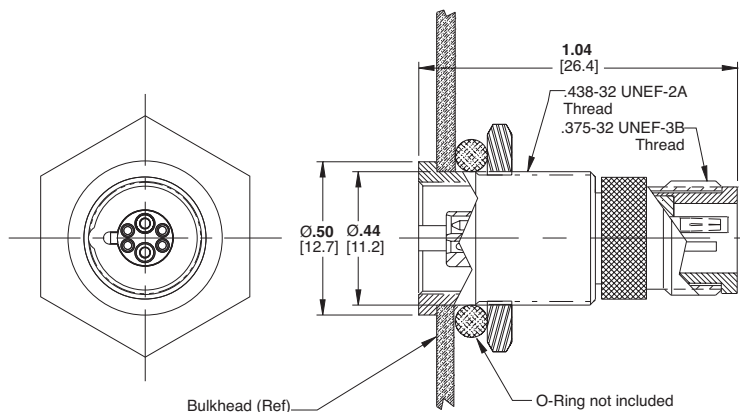
- NPOESS 1394 Connector and Cable Assemblies

- IEEE 1394 Standard for High-Performance Serial Bus

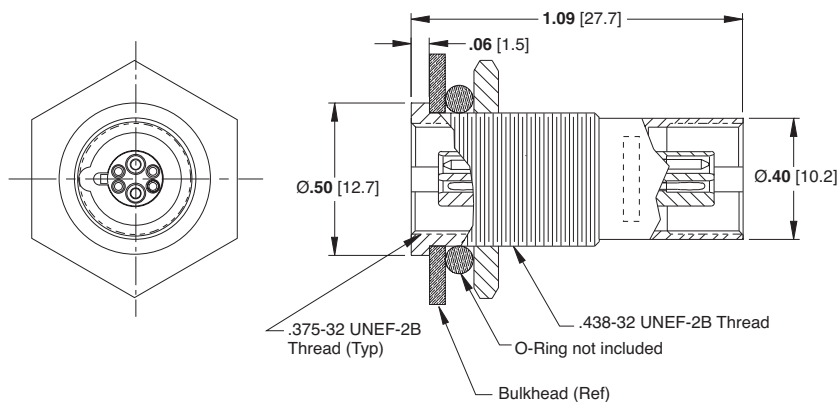
# Serial Bus Connector Block & Cable Assemblies

## PRODUCT DIMENSIONS

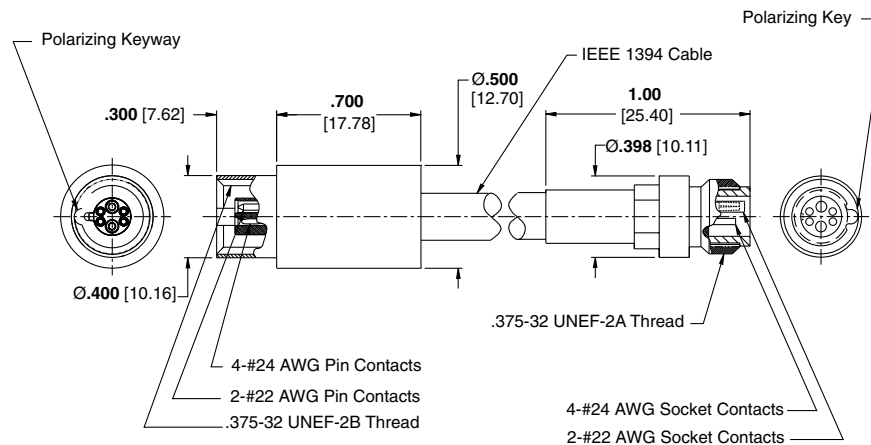
### Male/Female Feed-Thru Adapter



### Male/Male Feed-Thru Adapter



### Plug/Receptacle Assembly



## PRODUCT OFFERING

### • Cable Assembly Part Numbers\*:

- 1532160-1 Cable assembly, Female/Female (pin/pin), 14.76 ft. [4.5 m] length
- 8-1532160-4 Cable assembly, Female/Male (pin/socket), 4.92 ft. [1.5 m] length

### • Adapter and Connector Saver Part Numbers\*:

- 8-1532160-1 Connector saver, Male/Female 2.46 in. [62.5 mm] long
- 8-1532160-3 Connector saver, Male/Male 2.46 in. [62.5 mm] long
- 3-1532161-2 Male/Male Feed-thru adapter, Epoxy filled
- 5-1532161-4 Male/Female Feed-thru adapter, Epoxy filled

\*Contact Tyco Electronics for other cable lengths and adapters.

