

# Type C Ultra Miniature Coaxial Cable

## Part Number 9002-001



Ultra miniature coaxial cable is used when a strong and flexible cable is needed. Type C is recommended when low conductor resistance is a prime consideration. The Type C cable features a silver-plated solid copper center conductor with a drain wire and an aluminized polyester laminated tape shield. This and other types of coaxial cable are detailed in the Lake Shore Temperature Measurement and Control Catalog.

### Type C Coaxial Cable Specifications

#### Dimensions

Center conductor diameter:	32 AWG, 0.203 mm (0.008 in)
Dielectric diameter:	0.56 mm (0.022 in)
Shield thickness:	0.025 mm (0.001 in)
Drain wire (parallel to conductor):	32 AWG, 0.203 mm (0.008 in)
Jacket outer dimensions:	0.787 mm (0.031 in) × 1.02 mm (0.039 in)

#### Material

Center conductor:	Silver-plated copper
Dielectric/insulating material:	Gore-Tex®* expanded PTFE
Shield:	Aluminized polyester
Drain wire:	Silver-plated copper
Jacket material:	FEP
Jacket color:	Blue

\* Gore-Tex® is a registered trademark of W.L. Gore & Associates, Inc.

#### Electrical Properties

Resistance:	
Center conductor at 293 K (20 °C):	0.541 Ω/m (0.165 Ω/ft)
Drain wire at 296 K (23 °C):	0.541 Ω/m (0.165 Ω/ft)
Center conductor voltage, max:	150 VDC
Center conductor current, max:	150 mA DC
Temperature range:	10 mK to 400 K
Characteristic impedance:	50 ±5 Ω
Capacitance at 5 kHz:	94 pF/m (24 pF/ft) Nominal
Magnetism:	Diamagnetic
Attenuation (nominal):	1 MHz = 0.092 dB/m, 5 MHz = 0.167 dB/m 10 MHz = 0.224 dB/m, 15 MHz = 0.257 dB/m 20 MHz = 0.294 dB/m, 50 MHz = 0.427 dB/m 100 MHz = 0.623 dB/m

Form Number F058-00-00 Revision A — ©2014 Lake Shore Cryotronics, Inc. — 2 May 2014