FEE Crates-to-MuID Panels

- Belden 9M28334 shielded 34-conductor cable.
  - 40,000 feet total.
  - CL2 rated.
- 3M 3000-series connectors on both ends.
  - 420 feet total.
  - UL94V-O rated.

Associated Data Sheets

Flat Cable

Shielded MASS-TER® 9M283XX Series

(1)

.050" Pitch

28 AWG

PVC

Shielded, Round-to-Flat

Description

Belden's shielded MASS-TER cable offers end users the termination ease of Vari-Twist® flat cable with the flexibility and air flow enhancements of round cable.

MASS-TER cable was designed to meet the assembly requirement needs of today's computers, computer peripherals, terminals, telecommunication systems, industrial control systems and military communication systems.

MASS-TER cable is PVC jacketed in a round construction of pre-insulated twisted pairs followed by a flat terminating section laminated to a patented clear PVC/polyester substrate. Standard twist length is 18 inches followed by a 2 inch flat section.

Belden manufactures MASS-TER cable using an innovative spiraling technique which maintains the stringent conductor-to-conductor tolerance of ± .005" on .050" centering. Conductors are 28 AWG, stranded, tinned copper. Shielded MASS-TER cable contains an overall Beldfoil® and 65% tinned-copper braid shield.

Because the conductor pairs are non-laminated, it is easier to fit MASS-TER around corners. Each adjacent pair is twisted in an opposite direction to reduce crosstalk.

Each pair consists of a tan conductor paired with a color-coded conductor. Color sequence for each terminating section is Brown/Tan, Red/Tan, Orange/Tan, Yellow/Tan, Green/Tan, Blue/Tan, Violet/Tan, Gray/Tan, White/Tan, Black/Tan. Sequence is repeated as necessary.

The Vari-Twist flat section of MASS-TER makes it easy to terminate. Belden MASS-TER is designed for mass-termination with standard IDC connectors.

For further information on Belden's MASS-TER cable capabilities, contact your nearest Belden Distributor or Belden Sales Representative.

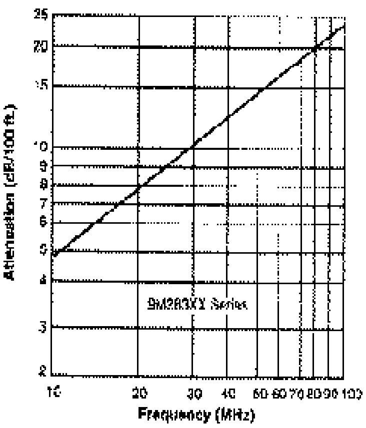
Physical

Conductor:	28 AWG (7x36) Tinned Copper
Insulation:	.010" Nom. Wall Color Coded PVC
Substrate:	.004" Nom. Wall Clear PVC/Polyester (Flat Section Only)
Pitch:	Conductor Centers in Flat: .050"±.005"
Pairs:	3/4" Nom. Lay-Adjacent Pairs Have Opposite Direction Lay
Construction:	18" of Twisted Pairs (Non-Laminated); 2" of Flat Section (Laminated)
Color:	Internal Cable: Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White, Black, with Common Tan, Repeat. Jacket: Chrome
Shielding:	Beldfoil (Aluminum/Polyester) Plus 65% Coverage Tinned Copper Braid
Jacket:	.050" Nom. Wall Chrome PVC
Temperature Rating:	-20°C to +105°C
Flammability Rating:	UL: VW-1, UL-1581 Vertical Tray; N.E.C.: 725 CL2
UL:	File #: E34972 Style: 20381
N.E.C.:	CL2
Application:	External Interconnection or Internal Wiring of Electronic Equipment and/or Class 2 Remote Control, Signaling, and Power-Limited Cables.
Packaging:	M100

Electrical

Voltage Rating:	300V RMS
Current Rating:	.5 AMPs
Conductor Resistance:	68 ohms/1000 ft.
Insulation Resistance:	>1 x 10^{10} ohms • 10 ft. (3m)
Impedance (Balanced):	110 ohms
Impedance* (Unbalanced):	65 ohms
Capacitance* @ 1 MHz:	27 pF/ft. (89 pF/m)
Inductance* @ 1 MHz:	.22 µH/ft. (.72 µH/m)
Propagation Delay*:	1.70 ns/ft. (5.5 ns/m)

Attenuation*



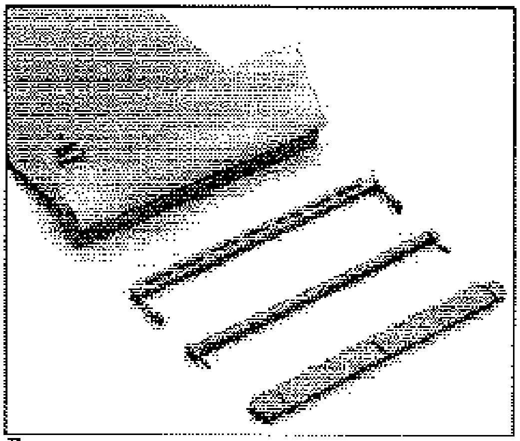
.13/ft

Figure 12.1: Signal cable data sheet.

.100″ x .100″ Wiremount Socket

.050″ Pitch Cable

3000 Series



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IMPORTANT NOTICE TO PURCHASER

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON TESTS WE BELIEVE TO BE RELIABLE, BUT THE ACCURACY OR COMPLETENESS THEREOF IS NOT GUARANTEED, AND THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED.

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Date Issued: July 25, 1996 — TS-0719-01 — Sheet 1 of 2

Physical

Insulation
Material: Glass Filled Polyester (PBT)
Flammability: UL 94V-0
Color: Gray

Contact
Material: Beryllium Copper (C172)
Plating
Underplate & U-Slot: 100 μ″ [2.54 μm] Nickel — QQ-N-290, Class 2
Wiping Area: 30 μ″ [0.76 μm] Gold — MIL-G-45204, Type II, Grade C
Wire Accommodation: 26 & 28 AWG Solid or Stranded, 30 AWG Solid
Marking: 3M Logo, Part Identification Number and Orientation Triangle

Electrical

Current Rating: 1 A
Insulation Resistance: $> 1 \times 10^9\ \Omega$ at 500 Vdc
Withstanding Voltage: 1000 Vrms at Sea Level

Environmental

Temperature Rating: -55°C to +105°C

UL File No.: E68080
CSA File No.: LR 40971

3M Electronic Products Division
6801 River Place Blvd.
Austin, TX 78726-9000

For technical, sales or ordering information call
800-225-5373

Figure 12.2: Signal connector data sheet.