## 3M<sup>™</sup> Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, Halogen Free PO/PO

HF017 Series



- Low Smoke Zero Halogen (LSZH) Insulation. Advantages of LSZH insulation are the low smoke (IEC 61034-2:2005), and low toxicity of combustion gases (NF X 70-100-2:2006), helping reduce the risk to firefighters, and helping reduce the soot and corrosion damage to nearby equipment
- 28 AWG stranded wire on .050 inch centers permits mass termination to broad line of IDC connectors
- 360 degree expanded copper shielding
- Primary cable is zippable for branching or discrete terminations
- Regulatory Information: Visit 3M.com/regs or contact your 3M representative to find the RoHS compliance status of the 3M part you are interested in.

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## **Physical**

Jacket Material: Halogen Free Polyolefin (PO)

Color: Gray

Primary Material: Halogen Free Polyolefin (PO)

Color: Gray

Marking: None

**Conductors:** 28 AWG,  $7 \times 36$  AWG [  $7 \times \emptyset$  0.127 ] Tinned Stranded Copper

Shielding Material: Expanded Copper

## **Electrical**

**Voltage Rating:** (Primary Cable) USA: 300V Canada: < 150V **Insulation Resistance:** (Primary Cable)  $> 1 \times 10^{10} \Omega/10$  ft. [ 3 m ]

Characteristic Impedance: Unbalanced Balanced

 $64 \Omega$   $121 \Omega$ 

 $\begin{array}{cccc} \textbf{Capacitance:} & 25.0 \text{ pF/ft} [\ 70.5 \text{ pF/m}\ ] & 13.2 \text{ pF/ft} [\ 41.7 \text{ pF/m}\ ] \\ \textbf{Inductance:} & 0.10 \ \mu\text{H/ft} [\ 0.35 \ \mu\text{H/m}\ ] & 0.19 \ \mu\text{H/ft} [\ 0.59 \ \mu\text{H/m}\ ] \\ \textbf{Propagation Delay:} & 1.61 \ ns/ft [\ 4.95 \ ns/m\ ] & 1.61 \ ns/ft [\ 4.95 \ ns/m\ ] \\ \end{array}$ 

**Velocity of Propagation:** 63%

Note: Unbalanced is measured between ground-signal-ground conductors, with shield grounded. Balanced is measured between signal conductors within a pair, with the shield floating.

## **Environmental**

**Temperature Rating:** (Primary Cable) +105°C

Halogen Free is defined as both 1) no halogen compounds that are intentionally added to the product or used in the manufacturing process for the product and 2) any impurities present are less than 900 ppm bromine, less than 900 ppm chlorine and/or less than 1500 ppm total bromine and chlorine. The latter are the levels set forth in certain industry standards for printed circuit boards, such as the International Electrotechnical Commission (IEC) 61249-2-21 standard. This information represents 3M's knowledge and belief which may be based in whole or in part on information provided by 3rd party suppliers to 3M.

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	Number of Conductors	3M Part Number	Dimension A ± .040"	Dimension B
	25	HF017/25	1.32 [ 33.5 ]	1.200 ± .011 [ 30.48 ]
PAPER (MFGR. OPTION)		P.O. PR INSULAT WG 7 X 36 AWG ED STRANDED CO	1011	.085 ±.010 [2.16 ±.25] .005 MIN [0.13] .0. JACKET
Ordering Information				
Number of Conductors (See Table)  Number of Conductors SF = Splice Free				
Note: Available in standard 100 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.				TS-2345-F Sheet 2 of 2

Regulatory: For regulatory information about this product, visit 3M.com/regs or contact your 3M representative.

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