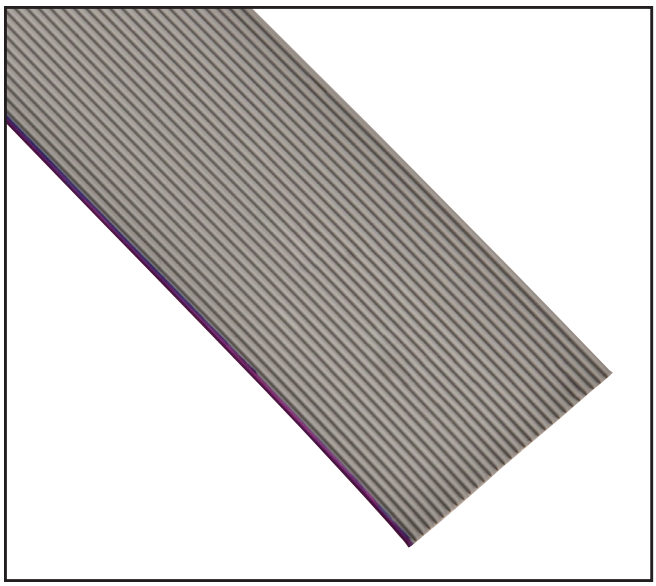
3M™ Round Conductor Flat Cable

1 mm 28 AWG Stranded, Halogen Free PO

HF625 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), reducing the risk to firefighters, and reducing the soot and corrosion damage to nearby equipment
- Broad operating temperature range from -40°C to 105°C
- 28 AWG stranded conductors on 1mm pitch permits mass terminations to a broad line of metric IDC connectors
- Zippable for branching or discrete terminations
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnector.com for compliance information (RIA E1 & C1 apply)

Date Modified: October 12, 2011

Physical

Insulation:

Material: Halogen Free Polyolefin (PO)

Color: Dark Gray

Marking:

Standard: None

Conductors: 28 AWG, 7 × 36 AWG [7 × Ø 0.127] Tinned Stranded Copper

Electrical

Voltage Rating:	USA: 300V Canada: 150V EU: <50V	
Insulation Resistance:	> 1×10^{10} Ω/3 m [10 ft]	
Characteristic Impedance:	**Unbalanced** 85 Ω	**Balanced** 144 Ω
Capacitance:	60.5 pF/m [18.44 pF/ft]	33.8 pF/m [10.29 pF/ft]
Inductance:	0.43 µH/m [0.13 µH/ft]	0.69 µH/m [0.21 µH/ft]
Propagation Delay:	5.15 ns/m [1.57 ns/ft]	4.86 ns/m [1.48 ns/ft]
Velocity of Propagation:	65%	69%

Note: Unbalanced is measured between ground-signal-ground conductors.Balanced is measured between conductors within a pair.

Environmental

Temperature Rating: -40°C to +105°C

Flammability Rating: UL: Horizontal

UL File No.: E42769, Style No.: 21682

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 1500ppm 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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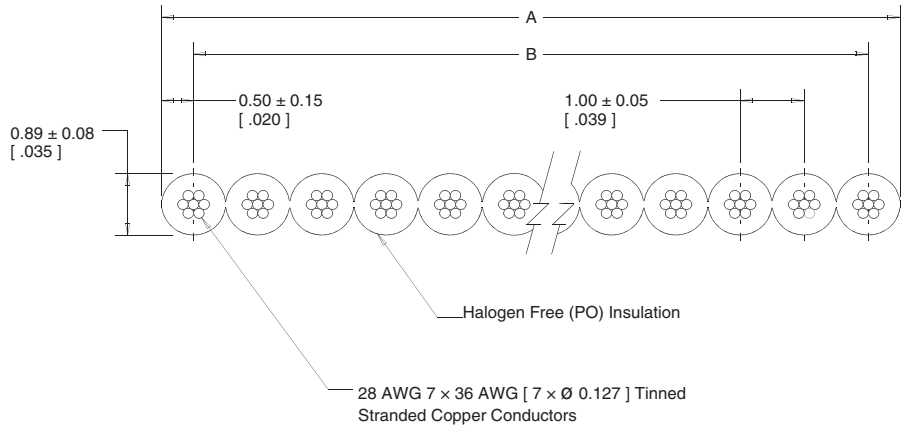
mm
[Inch]

Tolerance Unless Noted			
	.0	.00	.000
mm	±.3	±.13	

[ ] Dimensions for Reference Only

Number of Conductors	3M Part Number	Dimension A	Dimension B
06	HF625/06	6.00 ± 0.20 [.236]	5.00 ± 0.18 [.197]
08	HF625/08	8.00 ± 0.20 [.315]	7.00 ± 0.18 [.276]
10	HF625/10	10.00 ± 0.20 [.394]	9.00 ± 0.18 [.354]
12	HF625/12	12.00 ± 0.20 [.472]	11.00 ± 0.18 [.433]
14	HF625/14	14.00 ± 0.20 [.551]	13.00 ± 0.18 [.512]
16	HF625/16	16.00 ± 0.22 [.630]	15.00 ± 0.20 [.591]
18	HF625/18	18.00 ± 0.22 [.709]	17.00 ± 0.20 [.669]
20	HF625/20	20.00 ± 0.22 [.787]	19.00 ± 0.20 [.748]
22	HF625/22	22.00 ± 0.22 [.866]	21.00 ± 0.20 [.827]
24	HF625/24	24.00 ± 0.22 [.945]	23.00 ± 0.20 [.906]
26	HF625/26	26.00 ± 0.22 [1.024]	25.00 ± 0.20 [.984]
28	HF625/28	28.00 ± 0.22 [1.102]	27.00 ± 0.20 [1.063]
30	HF625/30	30.00 ± 0.25 [1.181]	29.00 ± 0.23 [1.142]
32	HF625/32	32.00 ± 0.25 [1.260]	31.00 ± 0.23 [1.220]
34	HF625/34	34.00 ± 0.25 [1.339]	33.00 ± 0.23 [1.299]
36	HF625/36	36.00 ± 0.25 [1.417]	35.00 ± 0.23 [1.378]
38	HF625/38	38.00 ± 0.25 [1.496]	37.00 ± 0.23 [1.457]
40	HF625/40	40.00 ± 0.25 [1.575]	39.00 ± 0.23 [1.535]
42	HF625/42	42.00 ± 0.25 [1.654]	41.00 ± 0.23 [1.614]
44	HF625/44	44.00 ± 0.25 [1.732]	43.00 ± 0.23 [1.693]
46	HF625/46	46.00 ± 0.25 [1.811]	45.00 ± 0.23 [1.772]
48	HF625/48	48.00 ± 0.25 [1.890]	47.00 ± 0.23 [1.850]
50	HF625/50	50.00 ± 0.25 [1.969]	49.00 ± 0.23 [1.929]



Notes:

1. Blue marking on one edge of cable designates wire #1.

Ordering Information

HF625/XX XX

Number of Conductors
(See Table)

Blank = Standard
SF = Splice Free

Note:

Available in standard 30 m and 100 m rolls, please specifiy when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

3M
Interconnect Solutions
http://www.3Mconnector.com

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

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