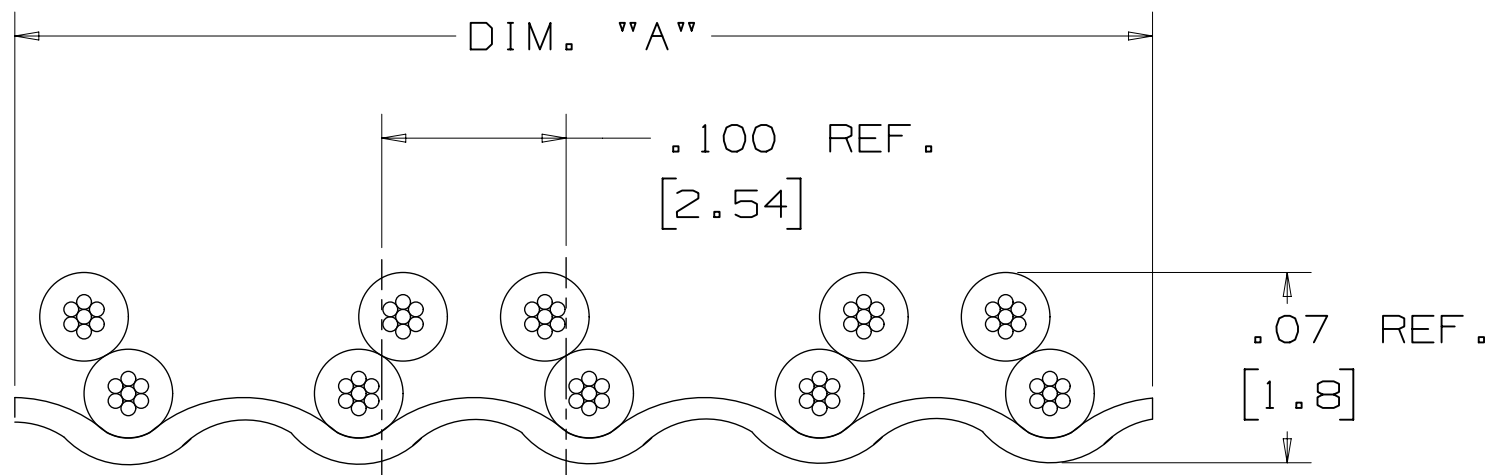
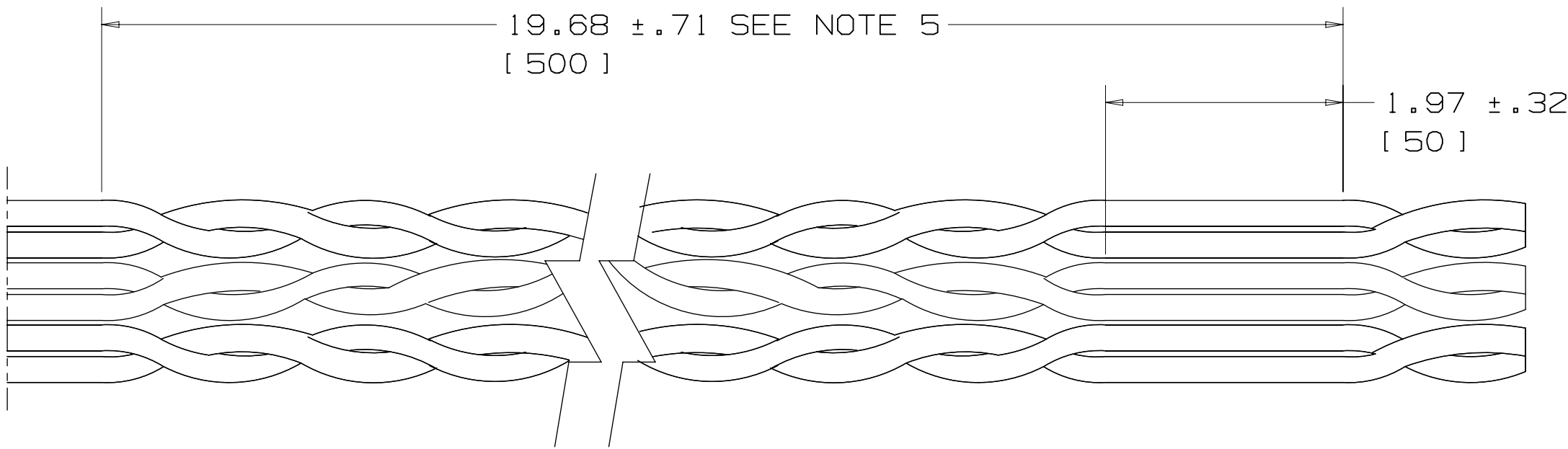
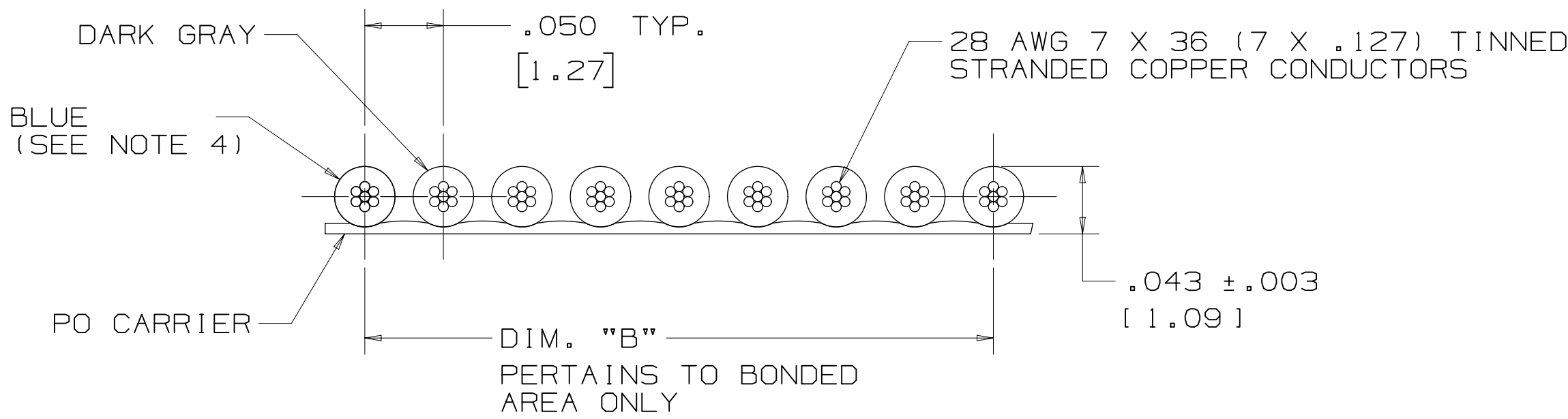


3M™ TWISTED PAIR FLAT CABLE, HF100 SERIES  
.050" 28 AWG STRANDED, MASS TERMINABLE, HALOGEN FREE PO



SECTION THRU TWIST



SECTION THRU FLAT

ORDERING INFORMATION  
HF100/XX TP XX

NUMBER OF CONDUCTORS (SEE TABLE) BLANK = STANDARD  
SF = SPLICE FREE

NOTE:  
AVAILABLE IN STANDARD LENGTHS OF 100 FT AND 300 FT PER ROLL,  
PLEASE SPECIFY WHEN ORDERING.

3M ELECTRONICS MATERIALS SOLUTIONS DIVISION  
INTERCONNECT SOLUTIONS  
<http://www.3Mconnectors.com>

3M IS A TRADEMARK OF 3M COMPANY.  
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INFORMATION CALL 800-225-5373

CANADIAN OPTION  
"PRINTING ILLUSTRATION"



AWM 21008 105°C 150V HOR



AWM 1A 105°C 150V FT2 EU <50V

TABLE 1			
NO. OF CONDUCTORS	3M PART NUMBER	DIM. "A"	DIM. "B"
10 (5 PAIR)	HF100/10TP	.50 [12.7]	.450+/- .010 [11.43]
14 (7 PAIR)	HF100/14TP	.70 [17.8]	.650+/- .010 [15.88]
16 (8 PAIR)	HF100/16TP	.80 [20.3]	.750+/- .010 [20.96]
20 (10 PAIR)	HF100/20TP	1.00 [25.4]	.950+/- .010 [22.23]
24 (12 PAIR)	HF100/24TP	1.20 [30.5]	1.150+/- .010 [24.77]
26 (13 PAIR)	HF100/26TP	1.30 [33.0]	1.250+/- .010 [31.12]
30 (15 PAIR)	HF100/30TP	1.50 [38.1]	1.450+/- .015 [36.80]
34 (17 PAIR)	HF100/34TP	1.70 [43.2]	1.650+/- .015 [37.47]
40 (20 PAIR)	HF100/40TP	2.00 [50.8]	1.950+/- .015 [42.55]
50 (25 PAIR)	HF100/50TP	2.50 [63.5]	2.450+/- .015 [50.17]
60 (32 PAIR)	HF100/60TP	3.00 [76.2]	2.950+/- .015 [62.87]
64 (32 PAIR)	HF100/64TP	3.20 [81.3]	3.150+/- .015 [80.01]

2 PHYSICAL :

INSULATION:  
MATERIAL: HALOGEN FREE POLYOLEFIN (PO)  
COLOR: BLUE / WHITE PAIRS

MARKING:  
STANDARD: NONE  
CANADIAN OPTION: SEE "PRINTING ILLUSTRATION" VIEW

CONDUCTORS: 28 AWG, 7 X 36 AWG [7 X Ø.127] TINNED STRANDED COPPER

2 ELECTRICAL :

VOLTAGE RATING: USA 150V CANADIAN 150V EU: <50V  
INSULATION RESISTANCE: >1 X 10<sup>10</sup>Ω/10Ft. [3m]

CHARACTERISTIC	UNBALANCED	BALANCED
	102Ω	119Ω
CAPACITANCE:	16.9 pF/ft [55.4 pF/m]	14.6 pF/ft [47.9 pF/m]
INDUCTANCE:	.18μH/ft [ .59μH/m]	.21μH/ft [ .69μH/m]
PROPAGATION DELAY:	1.74 ns/ft [5.71 ns/m]	1.73 ns/ft [5.68 ns/m]
VELOCITY OF PROPAGATION:	58%	59%

NOTE: UNBALANCED IS MEASURED BETWEEN GROUND-SIGNAL-GROUND CONDUCTORS.  
BALANCED IS MEASURED BETWEEN CONDUCTORS WITHIN A PAIR.

2 ENVIRONMENTAL :

TEMPERATURE RATING: -40°C TO +105°C (EIA-364-32G, METHOD A, TEST CONDITION 2)  
-15°C TO +105°C (UL TEMPERATURE RATING)

FLAMMABILITY RATING: UL: HORIZONTAL

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 900ppm BROMINE, LESS THAN 900ppm 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 STANDARDS. 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.

INCH [MM]		
TOLERANCE - UNLESS NOTED		
	.X	.XX
	.X	.XXX
[ INCH ]	±.1	±.01
		±.005
[ ] = DIM. FOR REFERENCE ONLY		



UL FILE NO: E42769,  
UL STYLE NO: 21008

\* 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.

\* 28 AWG WIRE ON .050 INCH CENTERS PERMITS MASS TERMINATION TO BROAD LINE OF IDC CONNECTORS.

- NOTES
1. REGULATORY INFORMATION: VISIT [3M.com/regs](http://3M.com/regs) OR CONTACT YOUR 3M REPRESENTATIVE TO FIND THE RoHS COMPLIANCE STATUS OF THE 3M PART YOU ARE INTERESTED IN.
  2. IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
  4. BLUE EDGE CONDUCTOR DESIGNATES WIRE ONE OF PAIR ONE.
  5. STANDARD PRODUCT HAS A 2" FLAT ON 19.7" REPEAT (50MM BOND ON 500MM REPEAT). FOR SPECIAL REQUIREMENTS, PLEASE CONTACT YOUR 3M SALES REPRESENTATIVE. THE FLAT CAN BE SPECIFIED ANYTHING OVER 1" (25MM), THE REPEAT CAN BE SPECIFIED FROM 6.5" TO 48" (16.5CM TO 1.2M).

D	79492	JUN 08,2018	JNC	BM
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DRP	C	DATE	DATE	DATE
CHKD	CHKD	DATE	DATE	DATE
DIVISION	DIVISION CODE	DATE	DATE	DATE
DO NOT SCALE DRAWING	SCALE	TOLERANCES EXCEPT AS NOTED	INCHES	MILLIMETERS
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2009	MAX SURFACE ROUGHNESS	MARKED ONLY	ANGLES
CAGE NUMBER	SIZE	DRAWING NO.	REV.	
D	78-5100-2344-9	D		
MODEL	HF100	DET	ISTS	YES
		NO	SHT	1 OF 2

3M™ TWISTED PAIR FLAT CABLE, HF100 SERIES  
.050" 28 AWG STRANDED, MASS TERMINABLE, HALOGEN FREE PO

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

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Austin, TX 78726-9000  
1-800-225-5373  
[www.3M.com/interconnect](http://www.3M.com/interconnect)

DESIGN REFERENCE NEXT ASSEMBLY		D 79492		JUN 08 2018		JNC		BM	
REV ECO		ISSUE DATE AND DESCRIPTION		DRFT		CHKD			
DATE 11, 2018		MFG		DATE		DATE			
DIVISION		DIVISION CODE		APPROV.		DATE			
DO NOT SCALE DRAWING		TOLERANCES EXCEPT AS NOTED		3M Center St. Paul, MN 55144		© 3M COPYRIGHT 2018 This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.			
THIRD ANGLE PROJECTION		INCHES		TITLE		3M TWISTED PAIR FLAT CABLE, .050", 28AWG STRANDED			
INTERPRET PER ASME Y14.5 - 2009		MILLIMETERS		CAGE NUMBER		SIZE		DRAWING NO.	
MAX SURFACE ROUGHNESS		ANGLES		D 78-5100-2344-9		REV.			
MAX SURFACES		ANGLES		MODEL		DET.		SHT 2 OF 2	
MARKED ONLY		ANGLES		HF100		LISTS		YES X NO	

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[HF100/40TP](#) [HF100/60TP](#) [HF100/64TP](#) [7000057440](#) [7100017623](#) [7100161979](#) [7100162057](#) [7100176371](#)  
[7100211224](#)