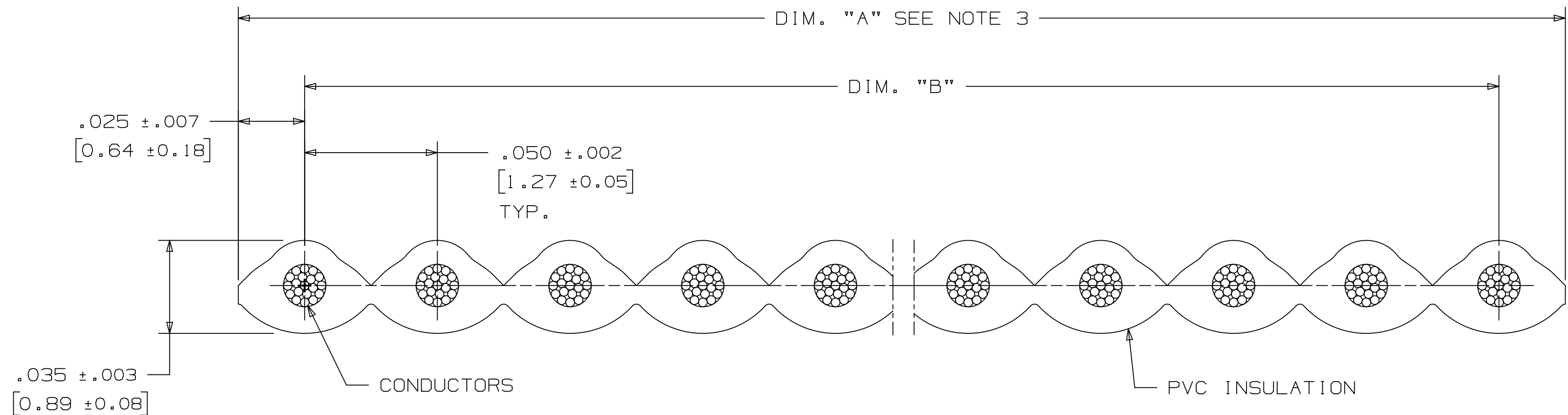


3M™ HIGH FLEX LIFE CABLE, 3319 SERIES
.050" 28 AWG STRANDED, PVC



- * FLEX LIFE OF 100 MILLION CYCLES AT 1-3/4 INCH DIAMETER.
- * 19 STRANDS OF HIGH STRENGTH COPPER ALLOY PROVIDE THE LONGEST FLEX LIFE AVAILABLE FOR DYNAMIC APPLICATIONS.
- * 28 AWG WIRE ON .050 INCH WIRE SPACING PERMITS MASS TERMINATION TO A BOARD LINE OF IDC CONNECTORS.
- * ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATION.

1.	REGULATORY INFORMATION: VISIT 3M.com/regs
2.	IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
3.	RED MARKING ON ONE EDGE OF CABLE DESIGNATES WIRE #1.

ORDERING INFORMATION

BLANK = STANDARD
 C = CANADIAN
 CERTIFIED
 VERSION

X 3319 / XX XX
 NUMBER OF CONDUCTORS
 (SEE TABLE 1)

BLANK = STANDARD
 SF = SPLICE FREE

NOTE:
AVAILABLE IN STANDARD LENGTHS OF 100 FT OR 300 FT ROLLS,
PLEASE SPECIFY WHEN ORDERING.
CONTACT 3M FOR AVAILABILITY OF ADDITIONAL CONDUCTOR COUNTS
AND/OR CUSTOM ROLL LENGTHS.

TABLE 1
DIMENSION CHART

NUMBER OF CONDUCTORS	3M PART NUMBER	DIMENSION "A"	DIMENSION "B"
06	3319/06	.300±.010 [7.62]	.250±.007 [6.35]
08	3319/08	.400±.010 [10.16]	.350±.007 [8.89]
09	3319/09	.450±.010 [11.43]	.400±.007 [10.18]
10	3319/10	.500±.010 [12.70]	.450±.007 [11.43]
14	3319/14	.700±.010 [17.78]	.650±.007 [16.51]
15	3319/15	.750±.010 [19.05]	.700±.007 [17.78]
16	3319/16	.800±.015 [20.32]	.750±.011 [19.05]
20	3319/20	1.000±.015 [25.40]	.950±.011 [24.13]
24	3319/24	1.200±.015 [30.48]	1.150±.011 [29.21]
25	3319/25	1.250±.015 [31.75]	1.200±.011 [30.48]
26	3319/26	1.300±.015 [33.02]	1.250±.011 [31.75]
30	3319/30	1.500±.020 [38.10]	1.450±.015 [36.83]
34	3319/34	1.700±.020 [43.18]	1.650±.015 [41.91]
36	3319/36	1.800±.020 [45.72]	1.750±.015 [44.45]
37	3319/37	1.850±.020 [46.99]	1.800±.015 [45.72]
40	3319/40	2.000±.020 [50.80]	1.950±.015 [49.53]
50	3319/50	2.500±.020 [63.50]	2.450±.015 [62.23]
60	3319/60	3.000±.020 [76.20]	2.950±.015 [74.93]
64	3319/64	3.200±.020 [81.28]	3.150±.015 [80.01]

2 PHYSICAL :

INSULATION:
MATERIAL: POLYVINYL CHLORIDE (PVC)
COLOR: BLACK

MARKING:
STANDARD: NONE
CANADIAN: SEE "PRINTING ILLUSTRATION" BELOW
CONDUCTORS: 28 AWG, 19 X 40 AWG (19 X Ø0.079) SILVER PLATED
STRANDED COPPER ALLOY (89% CONDUCTIVITY)

2 TABLE 2
ELECTRICAL CHARACTERISTICS

VOLTAGE RATING	USA: 300V, CANADA: 300V, EU: <50V	
INSULATION RESISTANCE	PRIMARY CABLE >1 X 10 ¹⁰ Ω/10 FT [3 m]	
	UNBALANCED	BALANCED
CHARACTERISTIC IMPEDANCE	103 Ω	171 Ω
CAPACITANCE	13.6 pF/ft [44.62 pF/m]	7.9 pF/ft [25.91 pF/m]
INDUCTANCE	0.14 μH/ft [0.47 μH/m]	0.23 μH/ft [0.76 μH/m]
PROPAGATION DELAY	1.40 ns/ft [4.59 ns/m]	1.35 ns/ft [4.43 ns/m]
VELOCITY OF PROPAGATION	73%	75%

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

2 ENVIRONMENTAL :

TEMPERATURE RATING: -20° C TO +105° C

FLAMMABILITY RATING: USA; VW1 CANADA; FT1

"PRINTING ILLUSTRATION"

UL® AWM 2651 105°C 300V VW1 3M NU **UL**® AWM 1A 105°C 300V FT1 EU <50V



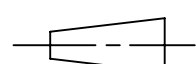


UL FILE NO: E42769
UL STYLE NO: 2651

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INTERCONNECT SOLUTIONS
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DIMENSIONS: INCHES [MM]
[MM] IS FOR REF. ONLY

ACCESS REFERENCE				NEXT	ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION		DRFT	CHKD	
ACCESS CODES						DRFT	CASTIGLIONE		DATE	JUN 29, 2023	MRG	DATE
						CHKD			DATE		APRIL	DATE
								F. RODRIGUEZ		JUN 29, 2023		
DIVISION					DIVISION CODE		© 3M COPYRIGHT 2024					
					EMSD		 3M Center St. Paul, MN 55144		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.			
DO NOT SCALE DRAWING		SCALE		TOLERANCES EXCEPT AS NOTED								
				INCHES .00 ±.01 .000 ±.001 .0000 ±.0005								
				MILLIMETERS .0 ±.1 .00 ±.01 .000 ±.001 .000 ±.0005		TITLE MEDIUM FLEX LIFE FLAT CABLE, .050", 28 AWG, 3319						
THIRD ANGLE PROJECTION					INTERPRET PER ASME Y14.5 - 2018		CASE NUMBER D 78-5100-0059-5					
<input checked="" type="checkbox"/> MAX. SURFACE ROUGHNESS <input checked="" type="checkbox"/> ALL SURFACES <input checked="" type="checkbox"/> MARKED ONLY				ANGLES ±		SIZE D		DRAWING NO. 78-5100-0059-5		REV. D		
<input checked="" type="checkbox"/> DET. <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO					SHT 1 OF 2		MODEL 3319		LISTS <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO SHT 1 OF 2			

3M™ HIGH FLEX LIFE CABLE, 3319 SERIES

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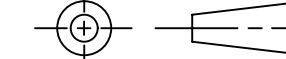
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D	I18693	OCT 08,2024	JNC	JG
C	64249	JUN 29,2023	JNC	FJR
		REVISED NOTES AND REDRAWN		
B	23269	APR 22,2009	RED	ARM
		REVISE NOTES		
A	AT2268	APR 23,2007	RED	ARM
		UPDATE TO NEW FORMAT		
REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DR	CAST	DATE	MPG	DATE
	I18693	29, 2023		
CHKD		DATE	APPRV F. RODRIGUEZ	DATE JUN 29,2023

DESIGN REFERENCE		NEXT ASSEMBLY		REV		ECO		ISSUE DATE AND DESCRIPTION				DRFT		CHKD	
ACCESS CODES				DRFT CASTIGLIONE		DATE JUN 29, 2023		INFO				DATE			
				CHKD		DATE		APPROV. F. RODRIGUEZ				DATE JUN 29, 2023			
DIVISION				DIVISION CODE EMSD				<div>  <div> <div>3M Center</div> <div>St. Paul, MN 55144</div> </div> </div>							
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				<div> <div>INCHES</div> <div>.00 ± .1</div> <div>.01 ± .01</div> <div>.000 ± .005</div> <div>.0000 ± .0005</div> </div>				<div> <div>TITLE</div> <div>MEDIUM FLEX LIFE FLAT CABLE, .050", 28 AWG, 3319</div> </div>							
THIRD ANGLE PROJECTION				<div> <div>MILLIMETERS</div> <div>0 ±</div> <div>.00 ±</div> <div>.01 ±</div> <div>.000 ±</div> </div>				<div> <div>CAGE NUMBER</div> <div>SIZE D</div> <div>DRAWING NO. 78-5100-0059-5</div> <div>REV. D</div> </div>							
<div> <div>INTERPRET PER ASME Y14.5 - 2018</div> <div> <div>MAX SURFACE ROUGHNESS</div> <div> <input checked="" type="checkbox"/> ALL SURFACES <input type="checkbox"/> MARKED ONLY </div> </div> </div>				<div> <div>ANGLES ±</div> </div>				<div> <div>MODEL 3319</div> <div> <div>DET.</div> <div> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO </div> </div> <div>SHT 2 OF 2</div> </div>							

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