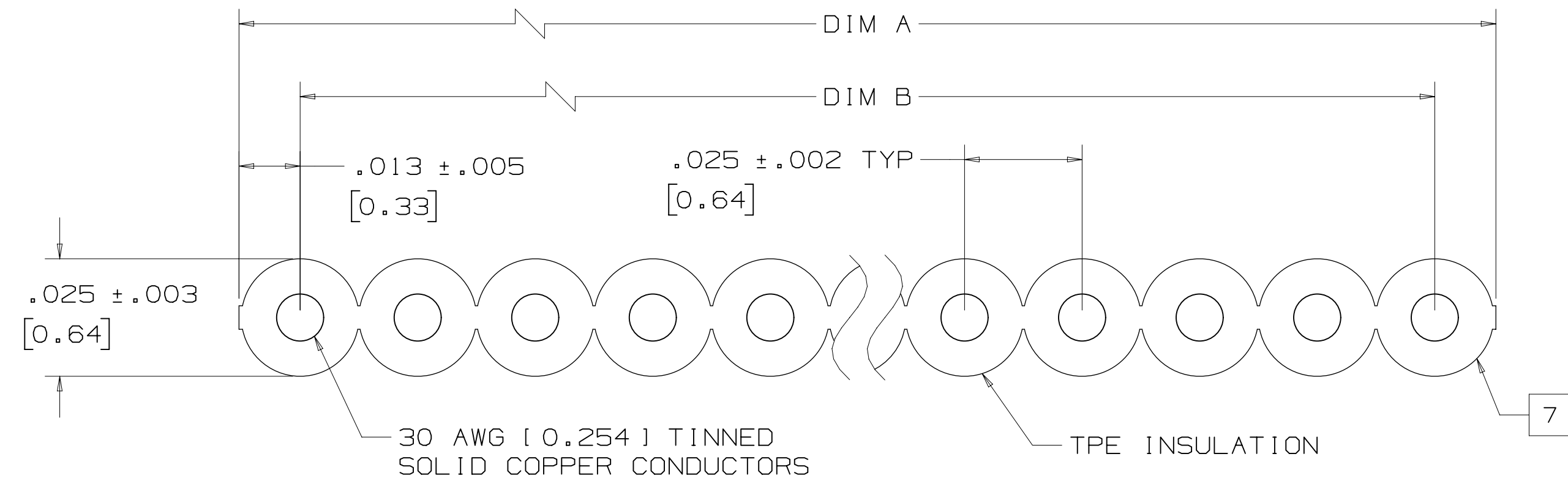


3M™ ROUND CONDUCTOR FLAT CABLE, 3749 SERIES  
 .025" 30 AWG SOLID, TPE

- NOTES
- REGULATORY INFORMATION: FOR REGULATORY INFORMATION ABOUT THIS PRODUCT, VISIT [3m.com/regs](http://3m.com/regs) OR CONTACT YOUR 3M REPRESENTATIVE.  
 UL FILE NO: E42769.  
 STYLE NO: 20297
  - CLOSE SPACING PERMITS HIGHER SIGNAL DENSITY
  - TPE INSULATION PROVIDES EXCELLENT TRANSMISSION PROPERTIES.
  - 30 AWG SOLID CONDUCTORS ON .025 INCH SPACING ALLOWS FOR MASS TERMINATION.
  - ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATION.
  - MEETS THE SCSI-3 FAST-20 CHARACTERISTIC IMPEDANCE REQUIREMENTS.
  - BLUE MARKING ON ONE EDGE OF CABLE DESIGNATES WIRE #1.



ORDERING INFORMATION

3749/XX XX

BLANK = STANDARD  
 C = CANADIAN CERTIFIED VERSION

BLANK = STANDARD  
 SF = SPLICE FREE

NUMBER OF CONDUCTORS (SEE TABLE)

NOTE:  
 AVAILABLE IN STANDARD 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			
NUMBER OF CONDUCTORS	3M PART NUMBER	DIMENSION A	DIMENSION B
10	3749/10	0.250±.006 [ 6.35 ]	0.225±.004 [ 5.72 ]
12	3749/12	0.300±.006 [ 7.62 ]	0.275±.004 [ 6.99 ]
14	3749/14	0.350±.006 [ 8.89 ]	0.325±.004 [ 8.26 ]
16	3749/16	0.400±.006 [ 10.16 ]	0.375±.004 [ 9.53 ]
20	3749/20	0.500±.006 [ 12.70 ]	0.475±.004 [ 12.07 ]
24	3749/24	0.600±.006 [ 15.24 ]	0.575±.004 [ 14.61 ]
26	3749/26	0.650±.006 [ 16.51 ]	0.625±.004 [ 15.88 ]
30	3749/30	0.750±.009 [ 19.05 ]	0.725±.006 [ 18.42 ]
34	3749/34	0.850±.009 [ 21.59 ]	0.825±.006 [ 20.96 ]
36	3749/36	0.900±.009 [ 22.86 ]	0.875±.006 [ 22.23 ]
40	3749/40	1.000±.009 [ 25.40 ]	0.975±.006 [ 24.77 ]
50	3749/50	1.250±.009 [ 31.75 ]	1.225±.006 [ 31.12 ]
60	3749/60	1.500±.012 [ 38.10 ]	1.475±.009 [ 37.47 ]
68	3749/68	1.700±.012 [ 43.18 ]	1.675±.009 [ 42.55 ]
80	3749/80	2.000±.015 [ 50.80 ]	1.975±.011 [ 50.17 ]
100	3749/100	2.500±.015 [ 63.50 ]	2.475±.012 [ 62.87 ]

PHYSICAL :

INSULATION MATERIAL: THERMOPLASTIC ELASTOMER, TPE (TPO TYPE)  
 COLOR: GRAY  
 MARKING STANDARD: NONE  
 CANADIAN: SEE "PRINTING ILLUSTRATION" VIEW

CONDUCTORS MATERIAL: 30 AWG (Ø0.254) TINNED SOLID COPPER

ELECTRICAL :

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

CHARACTERISTIC IMPEDANCE: UNBALANCED 90Ω  
 CAPACITANCE: 16.5 pF/ft [ 54.1 pF/m ]  
 INDUCTANCE: 0.13 μH/ft [ 0.43 μH/m ]  
 PROPAGATION DELAY: 1.48 ns/ft [ 4.86 ns/m ]  
 VELOCITY OF PROPAGATION: 69%

NOTE: UNBALANCED IS MEASURED BETWEEN GROUND-SIGNAL-GROUND CONDUCTORS.

ENVIRONMENTAL :

TEMPERATURE RATING: -40°C TO +105°C  
 FLAMMABILITY RATING: USA: UL HORIZONTAL CANADA: FT2



CANADIAN OPTION  
 "PRINTING ILLUSTRATION"

AWM 20297 105C 150V HB 3M NU

AWM 1A 105C 150V FT2 EU <50V

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 INFORMATION CALL 800-225-5373

INCH [ MM ]			
TOLERANCE - UNLESS NOTED			
INCH	±.1	±.05	±.010
[ ] = DIM.	FOR REFERENCE ONLY		

DIMENSIONS: INCH [ MM ]

DESIGN REFERENCE	NEXT ASSEMBLY	REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
		L	SCHMIDT	DEC 14, 2021	MFG	DATE
		T	PLEPYS	JAN 04, 2022	APPL	DATE
DO NOT SCALE DRAWING	SCALE 4/1	TOLERANCES EXCEPT AS NOTED		INCHES: .0 ±.1, .00 ±.02, .000 ±.005, .0000 ±.0002 MILLIMETERS: 0 ±, .0 ±, .00 ±, .000 ± ANGLES ±1°		
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5 - 2018	MAX SURFACE ROUGHNESS: 125, ALL SURFACES, MARKED ONLY		TITLE: ROUND CONDUCTOR FLAT CABLE SERIES 3749 .025" 30AWG SOLID CAGE NUMBER: D 78-5100-0068-6 MODEL:		
G 0101481 JAN 04, 2022 REDRAWN WORK REQUEST 13221 LDS TRP				© 3M COPYRIGHT 2022 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.		

178-5100-0068-6  
 1/20/2022 -- UTC Drf-set (hrs) 6

3M™ ROUND CONDUCTOR FLAT CABLE, 3749 SERIES  
 .025" 30 AWG SOLID, TPE

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DESIGN REFERENCE		NEXT ASSEMBLY		REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
DO NOT SCALE DRAWING		SCALE	TOLERANCES EXCEPT AS NOTED	G 0101481      JAN 04, 2022      LDS TRP REDRAWN WORK REQUEST 13221				
		4 1	INCHES .0 ± .1 .00 ± .02 .000 ± .005 .0000 ± .0002					
THIRD ANGLE PROJECTION		MILLIMETERS 0 ± .0 ± .00 ± .000 ±		3M Center St. Paul, MN 55144 © 3M COPYRIGHT 2022 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.				
MAX SURFACE ROUGHNESS 125 <input type="checkbox"/> ALL SURFACES <input checked="" type="checkbox"/> MARKED ONLY		INTERPRET PER ASME Y14.5 - 2018 ANGLER ±1°		CAGE NUMBER D 78-5100-0068-6		DRAWING NO. G		REV. G
				MODEL DET		SHT 2 OF 2		

78-5100-0068-6 DRAWING NUMBER  
 6 REVISION  
 6  
 1/20/2022 -- UTC  
 6  
 Dfn.set (hrs)  
 6  
 Standard  
 Central  
 Imaged: