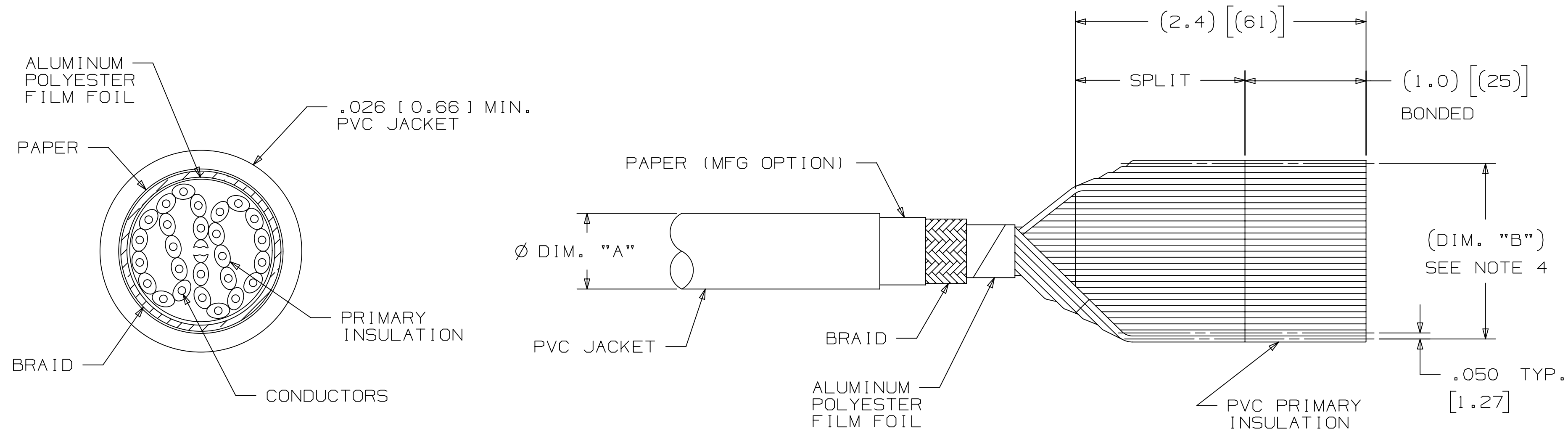


3M™ ROUND SHIELDED/JACKETED, FLAT CABLE, 3659 SERIES
.050" 28 AWG STRANDED, MASS TERMINATABLE, PVC/PVC



- * ROUND CONSTRUCTION PERMITS MORE EASY ROUTING.
- * 28 AWG WIRE ON .050 INCH CENTERS PERMITS MASS TERMINATION TO BROAD LINE OF IDC CONNECTORS.
- * CONTINUOUS SPLIT/BOND REPEAT ALLOWS FOR MASS TERMINATION ON 2.4 INCH CENTERS (APPROXIMATE).
- * PRIMARY CABLE IS ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATION.
- * MEETS EXTERNAL WIRING REQUIREMENTS OF NATIONAL ELECTRICAL CODE: ARTICAL 725 (CL2).
- * DUAL SHIELDING PROVIDES 35 db AVERAGE SHIELDING EFFECTIVENESS.

NOTES	
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 PRIMARY CABLE DESIGNATES WIRE #1.
4.	DIMENSION "B" PERTAINS TO BONDED AREA ONLY.

ORDERING INFORMATION

3659/XX XX XX

NUMBER OF CONDUCTORS
(SEE TABLE 1)

- BLANK = STANDARD
SF = SPLICE FREE

BLANK = STANDARD _____
SO = CONTINUOUSLY BONDED WIRE (NO SPLIT)

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.

2 PHYSICAL :

JACKET MATERIAL: POLYVINYL CHLORIDE (PVC)
COLOR: BLACK
PRIMARY MATERIAL: PVC
COLOR: GRAY

MARKING: SEE "PRINTING ILLUSTRATION" BELOW
STANDARD: 28 AWG, 7 X 36 AWG [7 X Ø.127] TINNED STRANDED COPPER
CONDUCTORS: .001 [.03] THICK ALUMINUM/POLYESTER FILM FOIL AND 90%
SHIELDING: COVERAGE TINNED COPPER BRAID.

2 ELECTRICAL :

VOLTAGE RATING: USA: N.E.C. 725, CL2 OR AWM; 300V CANADIAN 300V, EU: <50V
INSULATION RESISTANCE: (PRIMARY CABLE) $>1 \times 10^{10} \Omega/10ft. [3m]$

	UNBALANCED	BALANCED
CHARACTERISTIC IMPEDANCE:	62Ω	106Ω
CAPACITANCE:	27.7 pF/ft [90.88 pF/m]	15.2 pF/ft [49.9 pF/m]
INDUCTANCE:	0.11 μH/ft [0.35 μH/m]	0.17 μH/ft [0.57 μH/m]
PROPAGATION DELAY:	1.72 ns/ft [5.64 ns/m]	1.62 ns/ft [5.31 ns/m]
VELOCITY OF PROPAGATION:	59%	62%

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.

2 ENVIRONMENTAL :

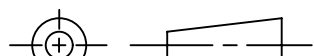
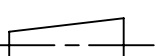
TEMPERATURE RATING: USA; CL2; 75° C OR AWM; -20° C TO +80° C
CANADA; -20° C TO +80° C

FLAMMABILITY RATING: USA; N.E.C. 725, CL2
CANADA; FT1

"PRINTING ILLUSTRATION"

UL[®] CL2 75 °C 28 AWG OR AWM 20267 3M NU **UL**[®] AWM II A/B 80 °C 300V FT1 EU <50V

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

DESIGN REFERENCE			NEXT			ASSEMBLY			REV		ECO		ISSUE DATE AND DESCRIPTION				DRFT		CHKD				
ACROSS CODES									DRFT		CASTIGLIONE		DATE		JUN 28, 2023		MFG		DATE				
									CHKD				DATE				APPRV.		F. RODRIGUEZ				
																	DATE		JUN 28, 2023				
DIVISION						DIVISION CODE						© 3M COPYRIGHT 2025											
DO NOT SCALE DRAWING						SCALE						TOLERANCES EXCEPT AS NOTED						3M 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, on used or disclosed other than for 3M authorized purposes. All rights reserved.					
												INCHES .0 ± .1 .00 ± .05 .000 ± .010 .0000 ± .0005											
THIRD ANGLE PROJECTION												TITLE						RD SHIELDED/JACKETED , FLAT CABLE , 3659 SERIES					
INTERPRET PER ASME Y14.5 - 2018						MILLIMETERS 0 ± 0 0 0.00 ±						CAGE NUMBER						SIZE					
MAX SURFACE ROUGHNESS						ALL SURFACES						D						DRAWING NO.					
☒ MARKED ONLY						ANGLES ±						MODEL						3659					
												DET.						LISTS					
												YES						☒ NO					
												SHT						1 OF 2					

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INTERCONNECT SOLUTIONS
<http://www.3M.com/interconnect>

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FOR TECHNICAL, SALES OR ORDERING
INFORMATION CALL 800-225-5373

CAVUS

UL FILE NUMBER:
E118773, CL2 (VOLUME 1, SECTION 1)
E42769, STYLE 20267

8

7

6

5

4

3

2

1

3M™ ROUND SHIELDED/JACKETED, FLAT CABLE, 3659 SERIES
.050" 28 AWG STRANDED, MASS TERMINATABLE, PVC/PVC

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

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THIRD ANGLE PROJECTION

MAX. SURFACE ROUGHNESS
ALL SURFACES
MARKED ONLY

SCALE

TOLERANCES EXCEPT AS NOTED

INCHES
±.1
±.05
±.010
±.0005

MILLIMETERS
0 ±
±.0
±.00
±.000

ANGLES ±

REV. ECO

DATE JUN 28, 2023

ISSUE DATE AND DESCRIPTION

DRFT

CHKD

DATE JUN 28, 2023

APPR. F. RODRIGUEZ

DATE JUN 28, 2023

3M

3M Center
St. Paul,
MN 55144

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TITLE

RD SHIELDED/JACKETED,
FLAT CABLE, 3659
SERIES

CAGE NUMBER

SIZE

DRAWING NO.

REV.

D

78-5100-0083-5

D

MODEL

3659

DET

LISTS

YES

NO

SHT 2 OF 2

8

7

6

5

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3

2

1

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