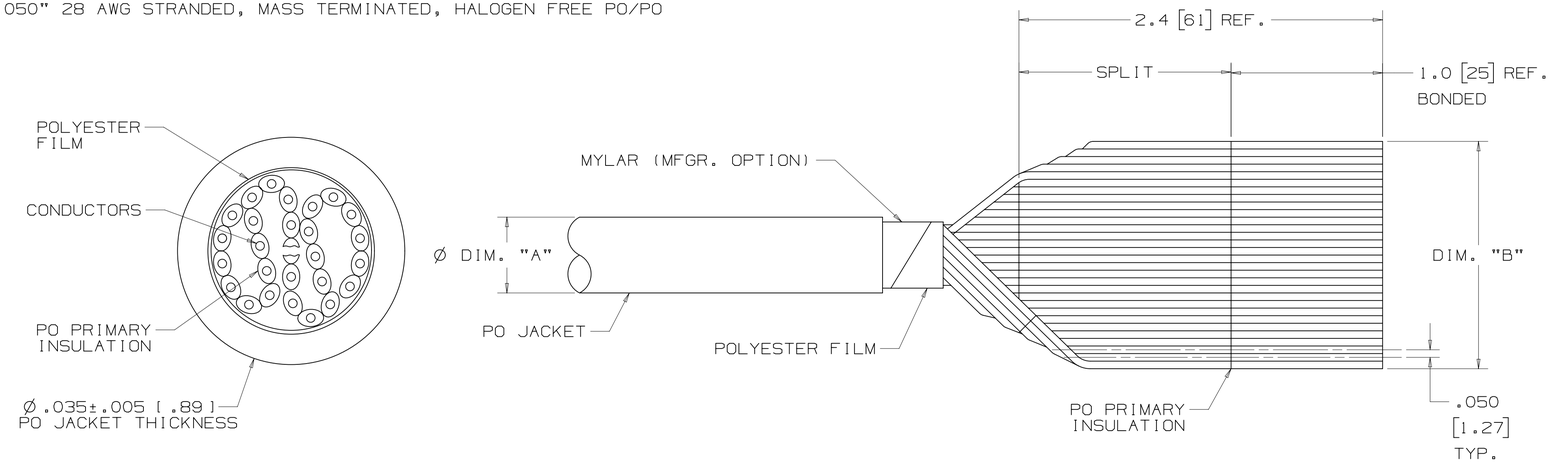
3M™ ROUND, JACKETED, FLAT CABLE, HF759 SERIES

.050" 28 AWG STRANDED, MASS TERMINATED, HALOGEN FREE PO/PO



* 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.
* 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 TERMINATIONS OF IDC CONNECTORS.
* PRIMARY CABLE IS ZIPPABLE FOR BRANCHING OR DISCRETE TERMINATION.

NOTES

1. REGULATORY INFORMATION: VISIT 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.
3. BLUE MARKING ON ONE EDGE OF PRIMARY CABLE DESIGNATES WIRE #1.
4. DIMENSION "B" PERTAINS TO BONDED AREA ONLY.

ORDERING INFORMATION

HF759/XX XX XX

- XX: NUMBER OF CONDUCTORS (SEE TABLE 1)
- XX: BLANK = STANDARD; SO = CONTINUOUSLY BONDED WIRE (NO SPLIT)
- XX: BLANK = STANDARD; SF = SPLICE FREE

NOTE:
AVAILABLE IN STANDARD 275FT ROLLS. CONTACT 3M FOR AVAILABILITY OF ADDITIONAL CONDUCTOR COUNTS AND/OR CUSTOM ROLL LENGTHS.

NUMBER OF CONDUCTORS	3M PART NUMBER	DIM. "A"	DIM. "B" SEE NOTE 4
9	HF759/09	0.26 [6.6]	0.40 [10.2]
10	HF759/10	0.26 [6.6]	0.45 [11.4]
14	HF759/14	0.27 [6.9]	0.65 [16.5]
15	HF759/15	0.27 [6.9]	0.70 [17.8]
16	HF759/16	0.27 [6.9]	0.75 [19.1]
20	HF759/20	0.30 [7.6]	0.95 [24.1]
24	HF759/24	0.33 [8.4]	1.15 [29.2]
25	HF759/25	0.33 [8.4]	1.20 [30.5]
26	HF759/26	0.33 [8.4]	1.25 [31.8]
30	HF759/30	0.37 [9.4]	1.45 [36.8]
34	HF759/34	0.37 [9.4]	1.65 [41.9]
36	HF759/36	0.39 [9.9]	1.75 [44.5]
37	HF759/37	0.39 [9.9]	1.80 [45.7]
40	HF759/40	0.39 [9.9]	1.95 [49.5]
50	HF759/50	0.44 [11.2]	2.45 [62.2]
60	HF759/60	0.47 [11.9]	2.95 [74.9]
64	HF759/64	0.50 [12.7]	3.15 [80.0]

2 PHYSICAL:

JACKET MATERIAL: HALOGEN FREE POLYOLEFIN (PO)
COLOR: DARK GRAY
PRIMARY MATERIAL: HALOGEN FREE POLYOLEFIN (PO)
COLOR: DARK GRAY

MARKING:
STANDARD: NONE
CONDUCTORS: 28 AWG, 7 X 36 AWG [7 X Ø.127] TINNED STRANDED COPPER
SHIELDING: POLYESTER FILM

2 ELECTRICAL:

VOLTAGE RATING: USA 150V CANADIAN 150V EU: <50V
INSULATION RESISTANCE: (PRIMARY CABLE) >1 X $10^{10}\Omega$/10ft. [3m]

	UNBALANCED	BALANCED
CHARACTERISTIC IMPEDANCE:	75Ω	136Ω
CAPACITANCE:	22.6 pF/ft [74.3 pF/m]	12.4 pF/ft [40.6 pF/m]
INDUCTANCE:	.13μH/ft [.43μH/m]	.23μH/ft [.75μH/m]
PROPAGATION DELAY:	1.69 ns/ft [5.54 ns/m]	1.69 ns/ft [5.54 ns/m]
VELOCITY OF PROPAGATION:	60%	60%

NOTE: UNBALANCED IS MEASURED BETWEEN GROUND-SIGNAL-GROUND CONDUCTORS.
BALANCED IS MEASURED BETWEEN CONDUCTORS WITHIN A PAIR.
"MEASURED VALUES ARE TYPICAL"

2 ENVIRONMENTAL:

TEMPERATURE RATING: -40°C TO +105°C (EIA-364-32G, METHOD A, TEST CONDITION 2)
-10°C TO +75°C (UL TEMPERATUE RATING)

FLAMMABILITY RATING: INTERNAL: HORIZONTAL FLAME PER UL758
EXTERNAL: CABLE FLAME (VERTICAL) PER UL758

HALOGEN FREE IS DEFINED AS BOTH 1) NO HALOGN 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 CERTIAN 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.

3M ELECTRONICS MATERIALS SOLUTIONS DIVISION
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c UL us
UL FILE NO: E42769
STYLE NO: 22170

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

REV	ECO	ISSUE DATE AND DESCRIPTION	DRFT	CHKD
E	79568	JUL 31,2018 REVISED & REDRAWN	JNC	BM

DESIGN REFERENCE | NEXT ASSEMBLY | ACCESS CODES | DRFT CASTIGLIONE DATE JUN 14,2018 | MFG DATE | CHKD DATE | APPVL B. MIZE DATE JUN 14,2018 | DIVISION | DIVISION CODE EMSD

DO NOT SCALE DRAWING | SCALE | TOLERANCES EXCEPT AS NOTED: INCHES .0 ± .00 ± .000 ± .0000 ± | THIRD ANGLE PROJECTION | INTERPRET PER ASME Y14.5 - 2009 | MILLIMETERS 0 ± .0 ± .00 ± .000 ± | MAX SURFACE ROUGHNESS ☐ ALL SURFACES ☐ MARKED ONLY | ANGLES ±

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3M Center St. Paul, MN 55144

TITLE: RD, JACKETED, 28 AWG, FLAT CABLE, HF759, HALOGEN FREE

CAGE NUMBER | SIZE D | DRAWING NO. 78-5100-2336-5 | REV. E

MODEL HF759 | DET LISTS ☐ YES ☒ NO | SHT 1 OF 2

78-5100-2336-5 [DRAWING NUMBER] E [REVISION]

Imaged: Central Standard Time 8/1/2018 - UTC Offset (hrs) 6

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THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS ☐ ALL SURFACES ☐ MARKED ONLY

TOLERANCES EXCEPT AS NOTED

INCHES: .0 ± | .00 ± | .000 ± | .0000 ±

MILLIMETERS: 0 ± | .0 ± | .00 ± | .000 ±

ANGLES ±

3M Center, St. Paul, MN 55144

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CAGE NUMBER | SIZE: D | DRAWING NO.: 78-5100-2336-5 | REV.: E

MODEL: HF759 | DET. LISTS ☐ YES ☒ NO | SHT 2 OF 2

78-5100-2336-5 DRAWING NUMBER | E REVISION

Image: Central Standard Time 8/1/2018 -- UTC Offset (hrs) 6