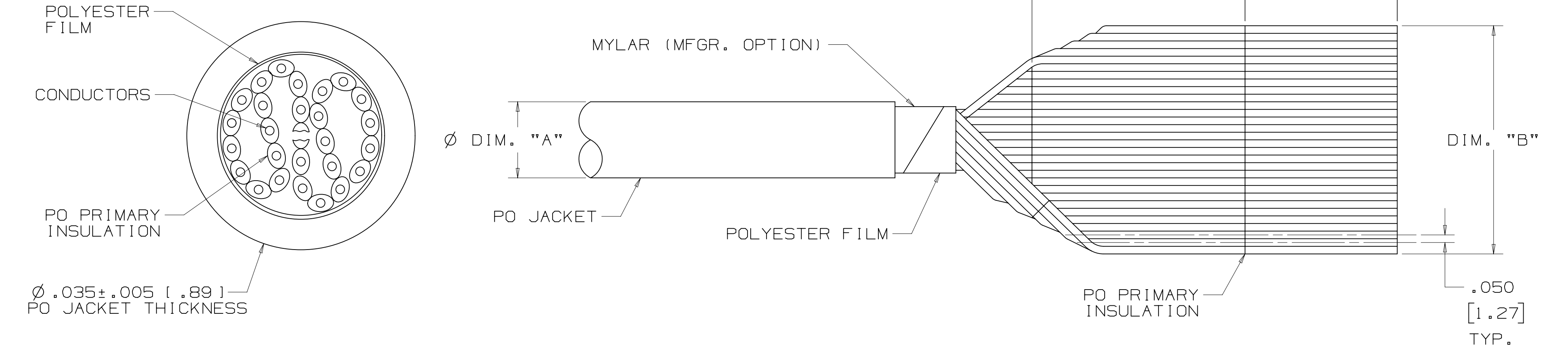


3M™ ROUND, JACKETED, FLAT CABLE, HF759 SERIES  
.050" 28 AWG STRANDED, MASS TERMINATED, HALOGEN FREE PO/PO



- \* 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

NUMBER OF CONDUCTORS  
(SEE TABLE 1)

BLANK = STANDARD  
SF = SPLICE FREE

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

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

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

ELECTRICAL :

VOLTAGE RATING : USA 150V CANADIAN 150V EU: <50V  
INSULATION RESISTANCE : (PRIMARY CABLE) >1 X 10<sup>10</sup>Ω/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"

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 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 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  
INTERCONNECT SOLUTIONS  
<http://www.3Mconnectors.com>

3M IS A TRADEMARK OF 3M COMPANY.  
FOR TECHNICAL, SALES OR ORDERING  
INFORMATION CALL 800-225-5373



UL FILE NO: E42769  
STYLE NO: 22170

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

|                               |  |                               |  |                               |  |                               |  |                               |  |                               |  |
|-------------------------------|--|-------------------------------|--|-------------------------------|--|-------------------------------|--|-------------------------------|--|-------------------------------|--|
| DESIGN REFERENCE              |  | NEXT ASSEMBLY                 |  | E 79568                       |  | JUL 31, 2018                  |  | JNC                           |  | BM                            |  |
| REV                           |  | ECO                           |  | ISSUE DATE AND DESCRIPTION    |  | DRFT                          |  | CHKD                          |  |                               |  |
| DATE                          |  | DATE                          |  | DATE                          |  | DATE                          |  | DATE                          |  | DATE                          |  |
| JUN 14, 2018                  |  | JUN 14, 2018                  |  | JUN 14, 2018                  |  | JUN 14, 2018                  |  | JUN 14, 2018                  |  | JUN 14, 2018                  |  |
| CHKD                          |  | CHKD                          |  | CHKD                          |  | CHKD                          |  | CHKD                          |  | CHKD                          |  |
| DIVISION                      |  | DIVISION CODE                 |  | EMSD                          |  | EMSD                          |  | EMSD                          |  | EMSD                          |  |
| DO NOT SCALE DRAWING          |  | SCALE                         |  | TOLERANCES EXCEPT AS NOTED    |  | TOLERANCES EXCEPT AS NOTED    |  | TOLERANCES EXCEPT AS NOTED    |  | TOLERANCES EXCEPT AS NOTED    |  |
| THIRD ANGLE PROJECTION        |  | THIRD ANGLE PROJECTION        |  | THIRD ANGLE PROJECTION        |  | THIRD ANGLE PROJECTION        |  | THIRD ANGLE PROJECTION        |  | THIRD ANGLE PROJECTION        |  |
| MAX SURFACE ROUGHNESS         |  | MAX SURFACE ROUGHNESS         |  | MAX SURFACE ROUGHNESS         |  | MAX SURFACE ROUGHNESS         |  | MAX SURFACE ROUGHNESS         |  | MAX SURFACE ROUGHNESS         |  |
| [ ] = DIM. FOR REFERENCE ONLY |  | [ ] = DIM. FOR REFERENCE ONLY |  | [ ] = DIM. FOR REFERENCE ONLY |  | [ ] = DIM. FOR REFERENCE ONLY |  | [ ] = DIM. FOR REFERENCE ONLY |  | [ ] = DIM. FOR REFERENCE ONLY |  |
| CAGE NUMBER                   |  | CAGE NUMBER                   |  | CAGE NUMBER                   |  | CAGE NUMBER                   |  | CAGE NUMBER                   |  | CAGE NUMBER                   |  |
| D 78-5100-2336-5              |  | D 78-5100-2336-5              |  | D 78-5100-2336-5              |  | D 78-5100-2336-5              |  | D 78-5100-2336-5              |  | D 78-5100-2336-5              |  |
| MODEL                         |  | MODEL                         |  | MODEL                         |  | MODEL                         |  | MODEL                         |  | MODEL                         |  |
| HF759                         |  | HF759                         |  | HF759                         |  | HF759                         |  | HF759                         |  | HF759                         |  |
| REV.                          |  | REV.                          |  | REV.                          |  | REV.                          |  | REV.                          |  | REV.                          |  |
| E                             |  | E                             |  | E                             |  | E                             |  | E                             |  | E                             |  |

