

# New Product Release Summary for 3M Sales Reps and Distributors

## 3M™ High Flex Life Cable, Halogen Free HF319 Series

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### Product Description

The 3M High Flex Life Cable, Halogen Free\* HF319 Series represents a new multi-million flex cycle addition to 3M's industry-leading line of halogen free ribbon cables. The HF319 series combines 3M's proven high flex life conductor with our halogen free polyolefin (PO) dielectric to bring a high flex life cable construction to the halogen free market space for the first time.

The HF319 Series cable is 28 AWG stranded ribbon cable on 0.050" pitch, and is made from the same silver plated copper conductor currently used in our popular High Flex Life Cable, Series 3319. The HF319 Series utilizes a low smoke zero halogen PO dielectric. The HF319 Series has been tested to 25 million flex cycles (over a 3/4" bend radius). Documentation and ratings will be updated as testing progresses. Please contact 3M Interconnect technical service for current test status.

### Market Segments/Customer Applications

The HF319 cable is designed for internal (inside-the-box) applications which may require multiple, repetitive movements, and where there may be safety policies or environmental regulations regarding the presence of halogens, such as brominated flame retardants or chlorine. Regulations or policies regarding the presence of halogens are prevalent in military/aerospace, transportation or other types of confined space applications where a fire could create smoke, and the burning of halogens (such as those contained in traditional PVC dielectrics) creates a toxicity risk to operating personnel or firefighters.

Such requirements may be found in:

- Many general use applications in European markets, where legislation regarding regulation of halogens has been discussed.
- Automated consumer products which are put into service near people, such as vending machines.
- Industrial production equipment with moving parts/robotics.
- Transportation applications – train, automotive, mass transit.
- Military/Aerospace.
- General electronics applications where customers may have safety or environmental policies limiting halogen content.



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### Competitive Situation

An exhaustive market search found no known commercially available halogen free high flex life ribbon cables in the marketplace. To the best of our knowledge, as of the time of this release, the HF319 cable is the only known, broadly available, halogen free high flex life ribbon cable in the world.

### Selling 3M's Value Proposition

Born from 50 years of IDC connector and round conductor ribbon cable innovation, 3M HF319 offers a high flex life, halogen free platform for traditional .100" IDC interconnect applications that may have special material requirements.

- 28 AWG stranded, .050" pitch configuration for use in termination to .100" pitch IDC ribbon cable connectors such as our flagship 3M™ Wiremount Socket, Series 3000, 3M™ IDC Ribbon Cable Socket, Series 891.
- 25 million flex cycle life enables use in applications that require long term electronic connection between moving parts.[Data?]
- Low smoke (IEC 61034-2:2005) and low toxicity of combustion gases (NF X 70-100-2:2006) reduces the risk to firefighters and reduces the soot and corrosion damage to nearby equipment in case of fire.
- UL rating per UL File E42769, Style 21682.
- Broad operating temperature range of -40° to +105°C.
- Zippable for branched or discrete terminations.

### Program Direction and Future New Products

The HF319 cable is only part of a long-term initiative to build a comprehensive portfolio of halogen free cable solutions. Other anticipated products currently under development include:

HF539 Medium flex .050" pitch 28 AWG ribbon cable for cost sensitive flex cycle applications  
HF447 .025" pitch, 30 AWG ribbon cable for use with increasingly popular .050" pitch IDC connectors  
HF644 Shielded, twisted pair round jacketed cable for LVDS applications

### Sales Support Materials

TS2342 is available on the Interconnect website: [3Mconnectors.com](http://3Mconnectors.com)

### Packaging/Labeling

Product is available packaged in boxes in standard 300' and 100' lengths. Boxes are marked with appropriate UL information.

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### Ordering Information/Lead Time

At product launch, the following standard roll sizes and configurations are available. Please contact 3M for other configurations.

- 6-64 conductors
- 100' and 300' roll lengths
- Regular and splice-free versions
- Standard and Canadian UL marked versions

Standard leadtime for all configurations is 21 calendar days.

### Pricing and Samples

Pricing is available on 3M Express and in the 3M Interconnect price pages. Samples are available in sample center.

### Termination Information

The following 3M IDC connectors are suitable for termination to HF319:

- 3M™ Wiremount Socket, Series 3000, IDC (TS0718)
- 3M™ IDC Ribbon Cable Socket, Series 891 (TS0449)
- 3M™ IDC Ribbon Cable Socket, Series D891 (TS2243)
- 3M™ Wiremount Plug, Series 4600, IDC (TS0086)
- 3M™ Card-Edge Connector, Series 3000, IDC (TS0010)
- 3M™ PCB Connector, Series 3400 IDC (TS0006)

### Questions to Ask Customers

*Open ended questions to get customers talking*

1. **Describe for me some of the fire safety requirements for your products...**  
(leads to a discussion around fire safety and smoke toxicity)
2. **Tell me some of the locations where your product is likely to be used.**  
(listen for enclosed environments, like train cars or sealed rooms, or for close proximity to people and potential for fire, like industrial production – leverage those to get them moving toward a HF solution to reduce smoke toxicity in case of fire)
3. **Explain for me what your company's policies are regarding reduction of halogen.**  
(can create an opening for introducing HF cables as “future proofing” of their applications against future environmental regulations or company policies)

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### Product Features/Advantages/Benefits

Features	Advantages	Benefits
Halogen Free	Meets proposed regulatory requirements	Helps to “future proof” products against potential future regulatory requirements
Low Smoke, Low Toxicity	Meets guidelines safety guidelines IEC 61034-2:2005 and NF X 70-100-2:2006	Reduces smoke and generates reduced toxicity of smoke vs. traditional PVC insulator materials
Zippable	Allows a higher conductor count to be zipped to multiple lower counts	<ul style="list-style-type: none"> <li>• Enables reduced inventory for customers who wish to stock higher conductor counts and zip to order</li> <li>• Enables use in branched or discrete wire applications</li> </ul>
25 million flex cycle rating at 3/4" bend radius	Enables use of HF cable in high flex life applications.	Brings reduced smoke toxicity cable to a market space where it previously had not existed.

### Contact Information

Chris Hogarth, Global Marketing Manager – Headers, Sockets and Cable  
+1 (512) 984-7855, [cwhogarth@mmm.com](mailto:cwhogarth@mmm.com)

*\*Advantages of LSZH insulation are the low smoke (IEC 61034-2:2005), low toxicity of combustion gasses (NF x 70-100-2:2006), reducing the risk to firefighters and reducing the soot and corrosion damage to nearby equipment.*

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Electronic Solutions Division  
Interconnect Products  
6801 River Place Blvd.  
Austin, TX 78726-9000  
1-800-225-5373  
[www.3Mconnectors.com](http://www.3Mconnectors.com)

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