

# Type HFEMCS

Part of the **SHIELD-FLEX®** family of EMI/RFI Shielding conduits, as well as **Zero-Halogen** product family.

Type HFEMCS is a hybrid of HFSLA and HFEMS. It utilizes the same bronze core and Polyurethane jacket as HFEMS, but gets further screening protection from a tinned copper braid as found in the HFSLA product.

Type HFEMCS liquidtight flexible shielding conduit is designed for field installations where safety concerns exist regarding a material's reaction in a fire situation. The specially formulated thermoplastic polyurethane jacket has excellent flame retardancy and low smoke characteristics. Acidic gases such as hydrogen chloride, hydrogen fluoride and hydrogen bromide are virtually eliminated as products of combustion.

## Construction:

### Inner Core:

- Bronze
- 3/8" – 2" Fully Interlocked Profile
- Shielded with a tinned copper braid

### Liquidtight Jacket:

- Low Smoke Zero-Halogen Thermoplastic
- Resistant to Ozone, Hydrocarbons, Moderate **Chemicals and Oils**
- Flame Retardant
- Low Smoke
- Low Toxicity
- Sunlight Resistant (UV)

## Application:

- Meets ASTM E162 for Flame Spread
- Meets the requirements of Bombardier SMP 800-C for Toxic Gas Generation.
- Meets the requirements of ASTM E662 for Smoke Generation
- Accepts Standard Metallic Liquidtight Fittings
- Designed for wiring applications requiring shielding effectiveness from Electromagnetic and Radio Frequency Interference (EMI/RFI)

HFSLA, HFEMS, and HFEMCS are trademarks of Electri-Flex Company, registered in the U.S. Patent and Trademark Office.



All Products Proudly Made in the USA

## Product Information

### CERTIFICATIONS & COMPLIANCE



WEEE and RoHS Compliant



BS EN IEC 61386 Classification  
Code 445240650414 **CE**

**Declaration**

**ARRA:** For ARRA Certification  
Letter, please [click here](#)



BABA Compliant

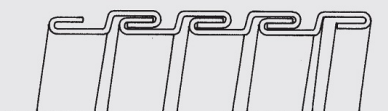
### STANDARD COLORS

Gray and Black. **Other colors and jacketing materials available upon request**

### WORKING TEMPERATURES:

-20°C to 105°C

-4°F to 221°F



Interlock

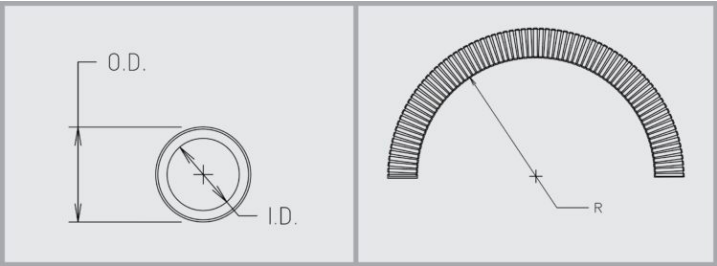
Combustion & Flammability Properties

| COMBUSTION & FLAMMABILITY      | TEST                 |
|--------------------------------|----------------------|
| Vertical Burn (Material)       | UL94 (V-0)           |
| Vertical Burn (Conduit)        | UL360                |
| Oxygen Index %                 | D2863                |
| Flame Spread Index             | ASTM E162            |
| Smoke Generation (Flaming)     | ASTM E662 (NFPA 258) |
| Smoke Generation (Non-Flaming) | ASTM E662 (NFPA 258) |
| Toxic Gas Generation           | BOMBARDIER SMP 800-C |
| Toxicity Index                 | NES 713              |

*\* Test data is based on controlled laboratory conditions and does not necessarily reflect performance in actual fire conditions. Additional product information available upon request.*

Markets:

Aerospace, DataComm, Defense, Healthcare, Ship Building, Telecommunications



Product Table

|               |          |          |           | Internal Diameter |          | Outside Diameter |          | Inside Bend Radius | Weight              | Standard Length |                |             |                |
|---------------|----------|----------|-----------|-------------------|----------|------------------|----------|--------------------|---------------------|-----------------|----------------|-------------|----------------|
| US Trade Size | ISO (MM) | CSA (MM) | Type      | Min (MM)          | Max (MM) | Min (MM)         | Max (MM) | Static (MM)        | (Kgs) per 30 meters | Carton (Mtrs)   | Part # (black) | Reel (Mtrs) | Part # (black) |
| 3/8"          | 16       | 12       | HFEMCS-10 | 12.3              | 12.8     | 17.5             | 18.0     | 51                 | 12                  | 30              | 86001          | 150         | 86003          |
| 1/2"          | 20       | 16       | HFEMCS-11 | 15.8              | 16.3     | 20.8             | 21.3     | 83                 | 16                  | 30              | 86101          | 150         | 86103          |
| 3/4"          | 25       | 21       | HFEMCS-12 | 20.8              | 21.3     | 26.2             | 26.7     | 108                | 20                  | 30              | 86201          | 150         | 86204          |
| 1"            | 32       | 27       | HFEMCS-13 | 26.4              | 27.1     | 32.8             | 33.4     | 165                | 39                  | 30              | 86302          | 120         | 86304          |
| 1 1/4"        | 40       | 35       | HFEMCS-14 | 35.1              | 35.8     | 41.4             | 42.2     | 203                | 46                  | 15              | 86402          | 60          | 86404          |
| 1 1/2"        | 50       | 41       | HFEMCS-15 | 40.0              | 40.6     | 47.4             | 48.3     | 229                | 64                  | 15              | 86502          | 45          | 86504          |
| 2"            | 63       | 53       | HFEMCS-16 | 51.3              | 51.9     | 59.4             | 60.3     | 279                | 82                  | 15              | 86602          | 30          | 86604          |

## related products



### Type HFSLA

Part of the SHIELD-FLEX® family of EMI/RFI Shielding conduits. Type HFSLA is identical to standard UL Listed liquidtight flexible steel conduit (See Type LA) but is augmented with a tinned copper shielding braid located over the inner steel core and under its protective Low Smoke Zero-Halogen Thermoplastic jacket.

[see product detail »](#)



### Type HFEMS

Part of the SHIELD-FLEX® family of EMI/RFI Shielding conduits. Type HFEMS liquidtight flexible shielding conduit is designed for field installations where safety concerns exist regarding a material's reaction in a fire situation. Its jacketing is made of a protective Low Smoke Zero-Halogen Thermoplastic.

[see product detail »](#)



### Type EMCS

Part of the SHIELD-FLEX® family of EMI/RFI Shielding conduits. Type EMCS is a hybrid of SLA and EMS. It utilizes the same bronze core and PVC jacket as EMS, but gets further screening protection from a tinned copper braid as found in the SLA product.

[see product detail »](#)



### Type ZHLA

Non-halogen, low smoke and low flame spread make Type ZHLA a proven choice for applications where limiting toxic materials of combustion are an important issue. Since ZHLA is also UL listed, it is ideal for field installation in confined, public areas such as subways, tunnels, etc.

[see product detail »](#)