







EMI/RFI Shielded

Electri-Flex Company offers three types of flexible liquidtight conduits designed for wiring applications requiring shielding effectiveness from Electromagnetic and Radio Frequency Interference (EMI/RFI).

Shielded conduit provides exceptional shielding effectiveness from electromagnetic and radio frequency interference (EMI/RFI). Use it to protect sensitive electronic circuits from outside noise in such applications as communications, radar and data transmission. But shielded conduit doesn't just keep interference out, it also keeps emissions in, which is vital to meeting European CE standards - an important issue for OEMs. Additionally, shielding conduits provide a redundant EMI/RFI system protection when using shielded cables with EMI/RFI shielded enclosures.

All three are designed to accept industry standard liquidtight connectors and address the problems of assembly and grounding. Connectors of this type include a grounding ferrule, which contacts the internal metallic material of the conduit and the connector body. This produces a direct shield-to-drain or ground, simply by tightening the connector.

Conduit Type	Page
 TYPE SLA	32
 TYPE EMS	33
 TYPE EMCS	34
 TYPE HFSLA	35
 TYPE HFEMS	35
 TYPE HFEMCS	35



SHIELD-FLEX

SHIELD-FLEX conduit allows for greater versatility than shielded cable in wiring configurations and retrofitting projects. With three levels of effectiveness to choose from, SHIELD-FLEX meets your needs.

Distinctive Characteristics May Include:

- UL Listed (Type SLA)
- Accepts standard liquidtight fittings
- Withstands wide temperature ranges
- Three levels of EMI/RFI protection
- WEEE and RoHS Compliant
- Halogen-Free Also Available

Markets We Serve:

- Medical
- Military
- Industrial
- Government/Defense
- Commercial
- Telecommunications
- Aerospace
- Public Transit
- Utilities

Applications/Markets:

- Air Handling Equipment (HVAC)
- Test & Measurement Equipment
- Data Centers
- Variable Speed Drives
- Commercial-off-the-shelf (COTS) (CAGE Code: 09641)
- CE-European Standard
- Radio Broadband/Antenna
- Solar/Wind Energy
- Ship Building
- Medical Diagnostics Equipment
- Wireless Communication
- Healthcare/Medical

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

TYPE EMCS

Markets:

- Aerospace
- Cell Towers
- Defense
- Healthcare
- Renewable Energy
- Ship Building
- Telecommunications



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. For a low-smoke, low flame spread, zero-halogen version, ask for HFEMCS (p. 35).

Construction:

Inner Core:

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

Liquidtight Jacket:

- Flexible PVC
- Resistant to Oils and Mild Acids
- Flame Retardant
- Sunlight Resistant (UV)

Application:

- Accepts Standard Metallic Liquidtight Fittings
- Designed for wiring applications requiring shielding effectiveness from Electromagnetic and Radio Frequency Interference (EMI/RFI)

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Proudly made in the U.S.A.

Product Information

Certifications & Compliance



WEEE and RoHS Compliant



BS EN IEC 61386 Classification Code 445340650314

ARRA Certification

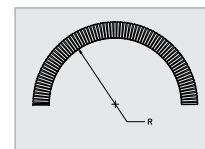
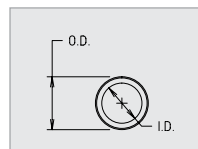
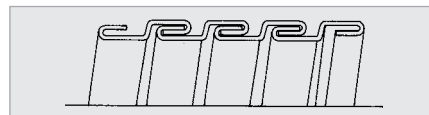
Standard Colors

Black. Other colors and jacketing materials available upon request

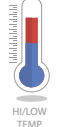
Working Temperatures

-55°C to 105°C

Interlock



US Trade Size	ISO (MM)	CSA (MM)	Type	INTERNAL DIAMETER		OUTER DIAMETER		INSIDE BEND RADIUS	WEIGHT	STANDARD LENGTH			
				Min (IN.)	Max (IN.)	Min (IN.)	Max (IN.)	Static (IN.)		Lbs. per 100 Ft.	Carton (Ft.)	Part # (Black)	Reel (Ft.)
3/8"	16	12	EMCS-10	0.484	0.504	0.690	0.710	3.0	27	100	78701	500	78703
1/2"	20	16	EMCS-11	0.622	0.642	0.820	0.840	3.0	35	100	78711	500	78713
3/4"	25	21	EMCS-12	0.820	0.840	1.030	1.050	4.0	43	100	78722	500	78724
1"	32	27	EMCS-13	1.041	1.066	1.290	1.315	4.0	85	100	78732	400	78734
1 1/4"	40	35	EMCS-14	1.380	1.410	1.630	1.660	4.5	101	50	78742	200	78744
1 1/2"	50	41	EMCS-15	1.575	1.600	1.865	1.900	7.0	140	50	78752	150	78754
2"	63	53	EMCS-16	2.020	2.045	2.340	2.375	9.5	180	50	78762	100	78764



HALOGEN-FREE (HF) SERIES



For a low-smoke, low-flame spread, zero-halogen version, ask for HFSLA, HFEMS or HFEMCS. It's ideal for field installation in confined, public areas such as subways, tunnels, etc.

There are many situations and areas where PVC is not allowed for electrical construction. The jacketing material used in the Halogen-Free Series virtually eliminates the release of acidic gases found in PVC products.

COMBUSTION & FLAMMABILITY	TEST	VALUE
Vertical Burn (Material)	UL94	V-0 Rating; No Flaming Drips
Vertical Burn (Conduit)	UL360	Pass; No Flaming Drips
Oxygen Index %	D2863	28.5
Flame Spread Index	ASTM E162	25; No Flaming Drips
Smoke Generation (Flaming)	ASTM E662 (NFPA 258)	Ds 41@1.5 Min/Ds 113@4.0 Min
Smoke Generation (Non-Flaming)	ASTM E662 (NFPA 258)	Ds 4@1.5 Min/Ds 19@4.0 Min
Toxic Gas Generation	BOMBARDIER SMP 800-C	Pass
Toxicity Index	NES 713	3.9

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

TYPE HFSLA				INTERNAL DIAMETER		OUTER DIAMETER		INSIDE BEND RADIUS	WEIGHT	STANDARD LENGTH					
US Trade Size	ISO (MM)	CSA (MM)	Type	Min (IN.)	Max (IN.)	Min (IN.)	Max (IN.)	Static (IN.)	Lbs. per 100 Ft.	Carton (Ft.)	Part # (black)	Reel (Ft.)	Part # (black)	Reel (Ft.)	Part # (black)
3/8"	16	12	HFSLA-10	0.484	0.504	0.690	0.710	2.0	29	100	789012	500	789032	1000	789042
1/2"	20	16	HFSLA-11	0.622	0.642	0.820	0.840	3.0	32	100	789128	500	789137	1000	789148
3/4"	25	21	HFSLA-12	0.820	0.840	1.030	1.050	4.2	53	100	789228	500	789247		
1"	32	27	HFSLA-13	1.041	1.066	1.290	1.315	5.5	82	100	789328	400	789347		
1 1/4"	40	35	HFSLA-14	1.380	1.410	1.630	1.660	7.0	102	50	789428	200	789447		
1 1/2"	50	41	HFSLA-15	1.575	1.600	1.865	1.900	4.5	124	50	789528	150	789547		
2"	63	53	HFSLA-16	2.020	2.045	2.340	2.375	6.0	145	50	789628	100	789647		

TYPE HFEMS				INTERNAL DIAMETER		OUTER DIAMETER		INSIDE BEND RADIUS	WEIGHT	STANDARD LENGTH					
US Trade Size	ISO (MM)	CSA (MM)	Type	Min (IN.)	Max (IN.)	Min (IN.)	Max (IN.)	Static (IN.)	Lbs. per 100 Ft.	Carton (Ft.)	Part # (Gray)	Reel (Ft.)	Part # (Gray)	Reel (Ft.)	Part # (Gray)
3/8"	16	12	HFEMS-10	0.484	0.504	0.690	0.710	3.0	27	100	78201	1000	78204		
1/2"	20	16	HFEMS-11	0.622	0.642	0.820	0.840	3.0	35	100	78211	1000	78214		
3/4"	25	21	HFEMS-12	0.820	0.840	1.030	1.050	4.0	43	100	78221	500	78224		
1"	32	27	HFEMS-13	1.041	1.066	1.290	1.315	4.0	85	100	78232	400	78234		
1 1/4"	40	35	HFEMS-14	1.380	1.410	1.630	1.660	4.5	101	50	78242	200	78244		
1 1/2"	50	41	HFEMS-15	1.575	1.600	1.865	1.900	7.0	140	50	78252	150	78254		
2"	63	53	HFEMS-16	2.020	2.045	2.340	2.375	9.5	180	50	78262	100	78264		
2 1/2"	70	63	HFEMS-17	2.480	2.505	2.840	2.875	12.0	232	25	78272				
3"	80	78	HFEMS-18	3.070	3.100	3.460	3.500	13.5	320	25	78282				
4"	100	103	HFEMS-19	4.000	4.040	4.460	4.500	17.0	388	25	78292				

TYPE HFEMCS				INTERNAL DIAMETER		OUTER DIAMETER		INSIDE BEND RADIUS	WEIGHT	STANDARD LENGTH					
US Trade Size	ISO (MM)	CSA (MM)	Type	Min (IN.)	Max (IN.)	Min (IN.)	Max (IN.)	Static (IN.)	Lbs. per 100 Ft.	Carton (Ft.)	Part # (black)	Reel (Ft.)	Part # (black)	Reel (Ft.)	Part # (black)
3/8"	16	12	HFEMCS-10	0.484	0.504	0.690	0.710	3.0	27	100	86001	500	86003		
1/2"	20	16	HFEMCS-11	0.622	0.642	0.820	0.840	3.0	35	100	86101	500	86103		
3/4"	25	21	HFEMCS-12	0.820	0.840	1.030	1.050	4.0	43	100	86201	500	86204		
1"	32	27	HFEMCS-13	1.041	1.066	1.290	1.315	4.0	85	100	86302	400	86304		
1 1/4"	40	35	HFEMCS-14	1.380	1.410	1.630	1.660	4.5	101	50	86402	200	86404		
1 1/2"	50	41	HFEMCS-15	1.575	1.600	1.865	1.900	7.0	140	50	86502	150	86504		
2"	63	53	HFEMCS-16	2.020	2.045	2.340	2.375	9.5	180	50	86602	100	86604		

