

Portable cable or cord?

BY BOB LUTHER

LEX PRODUCTS WAS ASKED by a theatrical consulting firm to define the difference between a flexible cord and cable in electrical installations. These terms are used seemingly interchangeably and it is often difficult to extract any rhyme or reason as to the difference.

Fortunately, the National Fire Protection Association (NFPA), publishers of the *National Electrical Code (NEC)*, provide the following definitions:

Flexible Cable: A cable or special cable manufactured with flexing or constant flexing properties.

Cable: A combination of conductors insulated from one another with a common covering that is not a cord.

Cord: Two or more flexible insulated conductors enclosed in a flexible covering that provides mechanical protection.

One of the reasons that the definition of a cord is that the drain wire is typically un-insulated so they fit the definition of a cord.

Another question we were asked was whether to use the term “jumper” or “extension.” The term “jumper” is used in the *National Electrical Code* in reference to bonding metal enclosures. The term is also commonly used for automotive cables used to hook one battery from another. Neither example applies to portable power distribution.

The *NEC* also refers in different places to cable assemblies, cable sets, and cable extensions. Cable assemblies and cable sets are very broad terms that don’t define application. Whereas, an extension’s application is implicit: extending the distance that power or data can be delivered. Since that’s what the assemblies we manufacture do,

Type of Connector	Type of Conductor	Recommended Description
15-30 Amp NEMA Wiring Devices	2 to 5 conductors, portable cord SOOW-A or SJOOW-A	NEMA Wiring Device Extensions
20-100 A Stage Pin Devices	3-conductor portable cord SOOW-A or SJOOW-A	Stage Pin Portable Cord Extensions
60-100 A Stage Pin Devices	Constructed of six 4 AWG single-conductor or 2 AWG feeder cable	Stage Pin Feeder Cable Extensions
100-400 A Cam-Type Devices	Constructed of 4, 2, 2/0 or 4/0 single conductor feeder cable	Cam Feeder Cable Extensions
20 A Power-Conn or True Devices	3-conductor portable cord SOOW-A or SJOOW-A	Power-Conn Portable Cord Extensions or True One Portable Cord Extensions
19-pin Socopex-Compatible Connectors	14, 18, or 19 conductor AWM style multi-cable or Type SOOW-A portable cord	19-pin Multi-Cord Portable Extensions
3-pin or 5-pin XLR Connectors	One or two pair 22 AWG plus braided shield with polyurethane jacket	3-pin DMX512 Cable Extensions or 5-pin DMX512 Cable Extensions

These definitions were accepted by OSHA in a July 2, 2015, standards interpretations letter. Based on these definitions we can come to one important differentiation. **Cords are defined as two or more insulated conductors, therefore single-conductor insulated conductors can be classified as cables.**

Extensions using 19-pin Socopex-compatible connectors are commonly referred to as multicables, however according to the *NEC/OSHA* definitions they are cords.

Extensions using 3-pin or 5-pin XLR connectors (DMX512) are commonly referred to as cables. The reason these are cables not

and because the term is used in the *NEC*, we prefer to use the terms cable or cord “extensions.” We can apply these definitions to the portable cords and cables commonly used in entertainment. ■



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