



# Approvals for North America

## Different UL Ratings for Cables

Product approvals in North America will often be conducted by the National Recognized Testing Laboratories (NRTL). The NRTLs are determined by the Occupational Safety and Health Administration (OSHA). You can find a list of the current NRTLs on [www.osha.gov](http://www.osha.gov). LUTZE mainly uses Underwriters Laboratories (UL) to certify the products. UL (USA) and CSA (Canada) have an agreement that allows the usage of one approval for both USA and Canada.

In general there are two main certification classes:

Certification	Logo	Meaning
UL Recognized		"UL Recognized" signifies that the product is rated as a component. A component is a part of an application. Cables with an "Appliance Wiring Material" (AWM per Standard 758) are always "recognized". Typically these cables are already installed on the machine when it ships.
UL Listed		"UL Listed" signifies a cable as actually tested and proven for a specific use. This way the cable has to match the UL Standards and the requirements of the National Electric Code (NEC). Typically, cables with a UL Listing are used for field wiring in North America.

UL Listing type	Description	Meaning
CM	Communication	Cables for data communication per UL category DUZX and NEC 800
CMG	Communication General	Cables for data communication per UL category DUZX and NEC 800
CMX	Communication Residential	Cables for data communication with restrictions per UL category DUZX and NEC 800
PLTC	Power Limited Tray Cable	Cables for tray applications per UL category QPTZ and NEC 725
PLTC-ER	Power Limited Tray Cable	Exposed Run Cables for tray applications per UL category QPTZ and NEC 725 (exposed use possible)
ITC	Instrumentation Tray Cable	Instrumentation cables for tray applications per UL category NYTT and NEC 727
ITC-ER	Instrumentation Tray Cable Exposed Run	Instrumentation cables for tray applications per UL category NYTT and NEC 727 (exposed use possible)
TC	Power and Control Tray Cable	Power and control cables for tray applications per UL category QPOR and NEC 336
TC-ER	Power and Control Tray Cable Exposed Run	Power and control cables for tray applications per UL category QPOR and NEC 336 (exposed use possible)
TC-ER-JP	Power and Control Tray Cable Exposed Run, Joist Pull	TC-ER cable that is suitable for pulling through structural members is marked "JP" per NEC article 336.10(10)
Bus Drop	Bus Drop Cable	Bus drop cable to create branches from busways per NEC 368.56 (B)
MTW	Machine Tool Wire	Single or multi conductor control cables for Machine Tool Wiring per UL category ZKHZ and NEC 670
Flexible VFD and Servo	Flexible VFD and Servo aka Flexible Motor Supply Cable	Power cables for motor and variable frequency drive applications per UL category ZJFH
WTTC	Wind Turbine Tray Cable	Power and control cables for wind turbine applications per UL category ZGZN

This list only shows the common UL Listings for typical applications in the field of automation and does not stand for a complete overview of the current UL Listings.

It is possible to combine different UL Listings in one cable. LUTZE offers a variety of cables with UL Listings for various industrial applications.