

What type of cable is used inside the cable tray and what is its price



Overview

There are many types of tray cable. They vary in shielding, insulation, jacketing, and many other features.

Key Takeaways

The most common cables used in cable trays are Type TC (Tray Cable), TC-ER (Exposed Run), ITC (Instrumentation Tray Cable), and PLTC (Power Limited Tray Cable), with prices varying by type, conductor count, and insulation. Types of Cables

1. Type TC (Tray Cable)

- Designed for power, control, and lighting circuits in industrial and commercial environments.
 - Rated for 600V, flame retardant, and UL listed.
 - Can be installed in cable trays, raceways, and outdoor locations if supported.
 - Standard TC cables are not allowed to run outside trays unless specifically rated as TC-ER.
 - Commonly used in power and control circuits where durability and flame resistance are required .
- #### 2. Type TC-ER (Tray Cable – Exposed Run)
- Similar to TC but rated for short exposed runs (up to 6 feet) outside the tray.

- Includes crush- and impact-resistant jacketing.
- Ideal for connections from tray to equipment like motors without conduit . 3. Type ITC (Instrumentation Tray Cable)
- Used for low-voltage control, signal, and communication circuits ($\leq 150V$, $\leq 5A$).
- Available in shielded or unshielded versions, sometimes with metal armor.
- Common in PLCs, DCS systems, transmitters, and other instrumentation . 4. Type PLTC (Power Limited Tray Cable)
- Rated for 300V, used in Class 2 and Class 3 circuits such as alarms, intercoms, and building automation.
- Can be routed in the same tray as 600V cables if separated by a divider.
- Often used in OEM and non-plenum applications .

Construction Features

- Multi-conductor with PVC, XLPE, CPE, PUR, or low-smoke zero-halogen jackets.
- Resistant to sunlight, moisture, chemicals, and mechanical stress.
- UL listed and tested for flammability, crush, and impact resistance .

Pricing

- Type TC (600V): Typically \$1.50-\$5 per foot, depending on conductor count and gauge.
- TC-ER: Slightly higher, around \$2-\$6 per foot, due to enhanced jacketing.
- ITC: Usually \$2-\$7 per foot, depending on shielding and conductor pairs.
- PLTC (300V): Around \$1-\$3 per foot, depending on size and insulation type. Prices vary by manufacturer, conductor count, insulation material, and purchase volume. Specialty cables like low-smoke zero-halogen or high-flex versions may cost more.

Summary

For cable tray installations, Type TC and TC-ER are the most common for power and control circuits, ITC for instrumentation, and PLTC for power-limited circuits. Selection depends on voltage, environmental conditions, and whether exposed runs are required. Pricing ranges from \$1 to \$7 per foot depending on type and specifications .

Article Content

What Is Tray Cable? Everything You Need to Know

Simply put, tray cable is a versatile cable approved for installation in cable trays or raceways. Tray cable comes in multiconductor

Types of Tray Cables Explained

The document discusses several types of cables commonly used in cable tray systems, including: 1. Tray cable (TC) which is used

The Beginner's Guide to Tray Cable Types

There are many types of tray cable. They vary in shielding, insulation, jacketing, and many other features. Here is a simple guide to

A Technical Guide to Tray Cable

The various types of tray cables are used for many kinds of applications—commercial, industrial, and utility—in any place where a

What is Cable Tray and How it is used in Industrial applications?

What is Cable Tray? In electrical cabling, a cable tray is a metallic structure used to handle insulated electrical power

Type of Cable Tray

The main benefits of steel cable tray are its high strength and low cost. Disadvantages include high weight, low electrical conductivity

Cable Trays Selection Guide: Types, Features, Applications

Cable trays are components of support systems for power and communications cables and wires. A cable tray system supports and

What Is A Cable Tray? 5 Types Of Cable Trays

A cable tray is a structural system used to support and manage electrical cables in various settings, such as industrial, commercial,

A Technical Guide to Tray Cable

A tray cable system is the integrated assembly of cable trays and the cable inside them. These systems support, organize, protect,

Tray-Rated Cable 101

Type ITC (Instrumentation Tray Cable) cable is the most common type of PLTC cable that we see in the market. These cables are

What is a Cable Tray? Types, Uses, and Installation Guide

A cable tray is a rigid structural system used to support and route electrical cables, wires, and even fiber optics. Unlike

Cable Tray Type Selection

Ladder cable tray is used for about 75 percent of the cable tray wiring system installations. It is the predominate cable tray type due

Cable Tray Technical Guide A practical guide to product selection

What is a cable tray ? ABB offers a number of different types of cable tray for use in a range of different applications and environments.

Exploring Cable Tray Types and Applications

Often unheralded, cable trays play a vital role in tray cable installations throughout industrial, commercial, and residential projects.

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Learn cable tray types, uses, and installation basics to support safe, efficient electrical and water supply pipe systems in your project.

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