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FeiChun® CY - Flexible, Screened PVC Control Cable



Technical Specifications

Product Overview

FeiChun® CY is a premium PVC control cable designed for use within intrinsically safe circuits. With a distinctive sky-blue sheath, this cable is ideal for EMC-sensitive environments where secure and interference-free signal transmission is critical. Engineered with a copper wire braid for optimal shielding, it provides robust protection against electromagnetic interference (EMI) while maintaining flexibility and durability for various installations.

Rated for 300/500 V (U0/U), this cable is suitable for both indoor and outdoor applications, including UV and weather resistance for reliable performance in exposed environments.

Key Features and Benefits

Intrinsically Safe Design: Suitable for intrinsically safe circuits with protection type ‘i’, ensuring safe operation in potentially hazardous environments.

Compact Installation: The cable’s small diameter allows for space-saving installations in confined areas.

Superior Shielding: Equipped with a copper wire braid, this cable minimizes EMI, ensuring reliable signal transmission in sensitive applications.

Outdoor Durability: Built to withstand outdoor conditions, this cable is UV and weather-resistant, compliant withISO 4892-2.

Flame-Retardant: Certified flame-retardant according toIEC 60332-1-2, enhancing safety in case of a fire incident.

Application Range

FeiChun® CY cable is designed for applications that demand high electromagnetic compatibility and intrinsic safety:

EMC-Sensitive Environments: Ideal for applications with strict EMC requirements, ensuring low signal interference.

Hazardous Areas: Suitable for intrinsically safe circuits as defined by IEC 60079-14:2013 / EN 60079-14:2014 / VDE 0165-1:2014, making it ideal for areas where safety standards are paramount.

Outdoor Installations: UV-resistant and weatherproof, allowing for extended use in outdoor environments.

Product Features

Flame Retardant: Tested to IEC 60332-1-2 for flame retardance.

High Screening Efficiency: Low transfer impedance (≤ 250 Ω/km at 30 MHz) minimizes electromagnetic interference.

UV and Weather Resistance: Compliant with ISO 4892-2, making it suitable for exposed environments.

Construction and Composition

Conductor: Fine-wire strand made of bare copper wires, ensuring flexibility and conductivity.

Insulation: LAPP P8/1 PVC insulation provides reliable protection and flexibility.

Core Identification: Black with white numbers, following VDE 0293-334 for easy identification.

Shielding: Tinned-copper braiding provides effective EMI shielding.

Outer Sheath: Sky blue PVC (similar to RAL 5015) offers visual distinction and UV resistance.

Technical Specifications

Core Identification Code: Black with white numbering, per VDE 0293-334.

Mutual Capacitance:

Core/Core: Approx. 160 nF/km
Core/Screen: Approx. 250 nF/km
Inductance: Approx. 0.52 mH/km
Conductor Stranding: Fine wire, complying with VDE 0295 class 5 and IEC 60228 class 5.

Minimum Bending Radius:

Occasional Flexing: 20 x outer diameter
Fixed Installation: 6 x outer diameter

Nominal Voltage: U0/U: 300/500 V

Test Voltage:

Core/Core: 3000 V

Core/Screen: 2000 V

Temperature Range:

Occasional Flexing: -5°C to +70°C

Fixed Installation: -40°C to +80°C

Performance Table for FeiChun® CY Control Cable

Number of Cores	Conductor Size (mm²)	Outer Diameter (mm)	Copper Index (kg/km)	Weight (kg/km)
3 x 1	1.0	6.8	62	110
7 x 1.5	1.5	9.9	154	193

The FeiChun® CY flexible control cable is engineered for demanding applications requiring high levels of safety and EMI protection. With its high-quality shielding, intrinsic safety, and durability, it meets industry standards for safe and efficient operation.

Suitable for both indoor and outdoor installations, the FeiChun® CY cable is an excellent choice for industries prioritizing performance and safety in hazardous and EMC-sensitive areas.