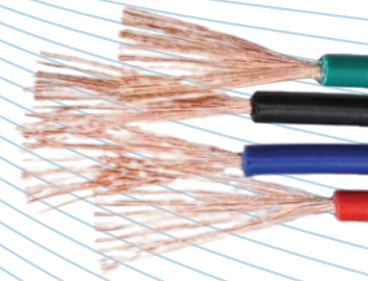




CLASS 5 CONDUCTOR



Cable Description

Class 5 conductors are highly flexible copper conductors, categorized according to SANS 1411 standards, specifically designed for applications requiring repeated movement, bending, or tight routing. These conductors are widely used in cables for industrial machinery, robotics, control panels, and other equipment that require durability and flexibility in confined spaces. Class 5 conductors provide an optimal balance of flexibility and durability, making them essential for applications requiring mechanical stress, movement, or confined routing. They help maintain reliable electrical performance and long-term cable integrity in challenging operational conditions.

Technical Data

Specifications:	SABS SANS 1411
Conductor Material:	Copper (Class 5 Flexible stranded, according to SABS 1411)
Insulation Compatibility:	These conductors are compatible with a variety of insulation materials such as PVC, rubber, and other polymers, which are chosen based on the application's mechanical and environmental requirements.
 Temperature Range:	Depending on the insulation material and design, Class 5 conductors can operate over a wide temperature range, making them suitable for both high-heat and cold environments.
 Voltage Rating:	The voltage rating for cables using Class 5 conductors depends on the type of insulation and construction but typically covers low to medium-voltage applications.

Nominal Size mm ²	# Wires & Diameter of Individual Wires	Conductor Resistance @ 20°C Maximum
		(Ω/km)
0.20mm ²	7/0.205mm ²	92 mΩ/km
0.40mm ²	12/0.205mm ²	48,8 mΩ/km
0.50mm ²	15/0.205mm ²	39 mΩ/km
0.75mm ²	22/0.205mm ²	26 mΩ/km
1.00mm ²	28/0.205mm ²	19,5 mΩ/km
1.50mm ²	42/0.205mm ²	13,3 mΩ/km
2.50mm ²	68/0.205mm ²	7,98 mΩ/km
4.00mm ²	110/0.205mm ²	4,96 mΩ/km
6.00mm ²	175/0.205mm ²	3.30 mΩ/km
10.0mm ²	294/0.205mm ²	1.91 mΩ/km
16.0mm ²	462/0.205mm ²	1.21 mΩ/km
25.0mm ²	721/0.205mm ²	0.78 mΩ/km

Applications

- Power and control wiring in machinery and equipment
- Robotics, where cables are subject to constant movement
- Flexible wiring in control panels and switchgear
- Automotive and transportation industries for moving parts
- Industrial environments requiring cables with high flexibility

Key Features

Flexibility: Composed of finely stranded copper, Class 5 conductors offer excellent flexibility, making them ideal for dynamic applications where cables are frequently moved or need to be routed around complex structures.

Durability: The fine strands provide resilience against mechanical stress, allowing the conductor to withstand repeated bending and vibration without breaking or degrading over time.

Efficient Conductivity: Manufactured with high-quality copper, Class 5 conductors ensure low electrical resistance, facilitating efficient power transmission and minimal energy loss.

Resistance to Fatigue: The finely stranded structure minimizes conductor fatigue, extending the cables' lifespan in demanding applications.

Compliance with Standards: Adhering to SANS 1411 standards for Class 5 flexibility, these conductors are recognized globally and can be used in a wide range of industrial and commercial applications.