

Cable specifications

We need two types of cables :

Power supply cable (3C) : 150m

4Cx1.5mm² cable : 1000m

Life duration	25 years
Climatic conditions	<p>Outdoor Cable shall be in use at temperature from -52°C to +30°C.</p> <p>Outdoor cables shall be designed to be pulled at a minimum temperature of -30°C (without preheating).</p>
Exposure conditions	<p>Instrument cables shall be suitable for exposure to the following as required for the installation conditions:</p> <ul style="list-style-type: none">- Occasional, inadvertent releases of gaseous hydrocarbons- Occasional acid and alkali spills- Rain and continuous moisture conditions- Continuous sunlight and UV exposure- Coastal locations- Snow & Ice coating
Hazardous area classification	<p>All electrical field equipments shall be certified for the use in zone 1 / Gas Group IIB / Temperature class T3 as a minimum.</p> <p>For intended use in hazardous areas, all electrical instrumentation shall meet the electrical area classification in which they are installed and shall comply with GOST R IEC 60079 / GOST 31610.0-2014 and GOST 32407-2013 / GOST 31441.1-2011 for non-electrical equipment as minimum.</p> <p>Fire hazardous characteristics including smoke and fume discharge, toxicity of combustion products, flame retardant and fire resistant with appropriate fire hazardous class to be in accordance with GOST 31565-2012.</p>
Smoke	Halogen free type
Flame retardant	<p>All cables shall be as minimum flame retardant as per GOST IEC 60332.1 and non-fire propagation as per GOST IEC 60332.3.22 test category A.</p> <p>The minimum time for cable resistance to fire is 2 hours.</p>
Cable characteristic	Copper instrument cables shall be solid, non-hygroscopic and fill the cross section to prevent the transmission of gas/vapor along the length of the

	cable under normal operating pressure and according to GOST IEC 60079-14 2013 to prevent the combustion flame and gases out when cable entered Ex d (ATEX) enclosure.
Isolation grade	Instrumentation & Telecommunication cables (24 V to 110 V): Isolation grade to be 250 V. Power supply & lined powered cables (230 V): Isolation grade to be 1000 V.
Conductors	Conductors shall be copper type, stranded class 2 minimum (IEC 60228 and GOST 22483-2012). To form a pair/ triad, the insulated conductors shall be twisted together. The lay length for pairs shall not exceed 70mm for 1mm ² conductors, 100mm for 1.5mm ² conductors and 150mm for 2.5mm ² conductors. Conductor minimum sizes to be used are: Instrumentation cables: 1 mm ² and 2.5 mm ² Power supply cables: 2.5, 4, 6, 10, 16 mm ² Number of Pairs : 1, 2, 8, 16
Conductor insulation material	For Halogen free cables, cores shall be insulated by polyethylene (XLPE).
Mechanical protection	All outdoor and indoor instrumentation and telecom cables are not armoured