

Thermocouple TX ICAM Armoured Extension Cable



Description

The Thermocouple TX ICAM Armoured Extension Cable range, supplied by Cleveland Cable Company, comprises specialized multi-pair instrumentation cables engineered for transmitting precise temperature measurement data from Type T thermocouple sensors. Manufactured in compliance with international and British specifications including IEC 60584-3, ANSI MC 96.1, and NF C 42-324, these cables carry a standard instrumentation voltage rating of 250V.

The internal construction consists of matched extension alloys—a positive plain copper (Cu) wire and a negative copper-nickel (CuNi) wire—insulated with flame-retardant PVC. To eliminate crosstalk and external electromagnetic interference, the twisted pairs feature an Individual and Collective Aluminium/polyester tape screen (ICAM) with tinned copper drain wires, enclosed in an inner PVC bedding, reinforced with an armour layer of Double Steel Tape Armour (DSTA) or Galvanised Steel Wire Armour (SWA), and completed with a robust, hydrocarbon-resistant PVC outer sheath.

Engineered for dependable use across heavy industrial sectors, this cable is designed for noise-heavy environments subject to severe electrical interference, crosstalk, and mechanical stress. It is ideal for power stations, oil refineries, petrochemical processing plants, and chemical facilities where continuous, accurate multi-point temperature monitoring is critical. The integrated steel armouring delivers superior mechanical protection against impact, tensile pull, and external crushing. Additionally, the specialized outer sheath provides durable resistance to weathering, UV radiation, and aliphatic or aromatic hydrocarbons, maintaining operational integrity within a temperature range of -20°C to +80°C.

For general installation, these armoured multi-pair cables are suitable for direct burial in trenches within free-draining soils, as well as pulling through underground plastic ducts and conduits. They are also widely deployed above ground for fixed routing on open-air structures, external building walls, and industrial indoor or outdoor cable trays to connect field-mounted sensors to control room panels.

Key Features



Voltage Rating
250 Volts



Minimum Bending Radius
8 x Overall Diameter



Flame Retardancy
BS EN/IEC 60332-1-2



Temperature Limits
Temperature Range: -20°C to +60°C

Core Colours

Positive: Orange

Negative: White

Standards

- BS EN/IEC 60332-1-2
- BS EN/IEC 60584-3
- NF C 32-070

Construction

- **Conductor:** Positive: Copper
Negative: Constantan
- **Insulation:** Flame Retardant Polyvinyl Chloride (PVC-FR)
- **Insulation Screen:** Individual and Collective Aluminium/Polyester Tape Screen (AL/PET)
- **Drain Wire:** Tinned Copper
- **Bedding:** Polyvinyl Chloride (PVC)
- **Armour:** Double Steel Tape
- **Outer Sheath:** Flame Retardant Polyvinyl Chloride (PVC-FR)
- **Sheath Colour:** Orange

QA Lab

Cleveland Cable Test & Training Lab

Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing. Where applicable, cables are independently tested and certified by BASEC to ensure full compliance.



CPR

Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.



Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.



ecovadis

Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

ecovadis

Thermocouple TX ICAM Armoured Extension Cable - Dimensions

Reference	Conductor Size (mm ²)	No Of Pairs	Overall Diameter(Lower)	Overall Diameter(Upper)	Weight(Kg/Km)
TCOUPXICAMA3X2X/5	0.50	3	14.50	16.80	380
TCOUPXICAMA7X2X/5	0.50	7	19.10	22.00	595
TCOUPXICAMA12X2X/5	0.50	12	23.90	27.60	860
TCOUPXICAMA19X2X/5	0.50	19	28.70	33.00	1215
TCOUPXICAMA27X2X/5	0.50	27	33.10	38.30	1700

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