

# Thermocouple EX ICAM Screen Extension 250V Cable

## Description

The Thermocouple EX ICAM Screen Extension Cable range, supplied by Cleveland Cable Company, comprises specialized multi-pair unarmoured instrumentation cables engineered for transmitting precise temperature measurement data from Type E thermocouple sensors. Manufactured in compliance with international and European specifications including IEC 60584-3, NF C 42-324, and NFC 32070 C2, these cables carry a standard instrumentation voltage rating of 250V. The internal construction consists of matched extension-grade alloys—a positive Nickel-Chromium (NiCr) wire and a negative Constantan (Copper-Nickel) wire—insulated with heat-resistant, flame-retardant PVC. To eliminate crosstalk and severe external electromagnetic interference across long routing distances, the twisted pairs feature an Individual and Collective Aluminium/polyester tape screen (ICAM) layout with tinned copper drain wires, all enclosed in a robust, flame-retardant PVC outer sheath.

Engineered for dependable use across industrial monitoring sectors, this unarmoured cable is designed for noise-heavy environments subject to high levels of electrical noise, crosstalk, and chemical exposure where mechanical risks are minimal. It is widely utilized in power generation stations, petroleum refineries, chemical processing facilities, and manufacturing plants where continuous, accurate multi-point temperature tracking is critical. The specialized outer jacket delivers reliable resistance against weathering, UV radiation, and aliphatic or aromatic hydrocarbons, maintaining structural integrity and high signal clarity within a standard fixed operating temperature range of -20°C to +60°C.

For general installation, these unarmoured multi-pair extension cables are suitable for pulling through underground plastic ducts and conduits, or for routing within indoor containment systems. 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 securely link field-mounted sensors to control room panels. During installation, standard parameters dictate that care must be taken to maintain the structural layout, ensuring that a minimum bending radius is strictly adhered to after fixed installation to preserve continuous screening performance and signal accuracy.

## 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: Violet

Negative: White

## Standards

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

## Construction

- **Conductor:** Positive: Nickel Chromium  
Negative: Copper Nickel
- **Insulation:** Flame Retardant Polyvinyl Chloride (PVC-FR)
- **Insulation Screen:** Individual and Collective Aluminium/Polyester Tape Screen (AL/PET)
- **Drain Wire:** Tinned Copper
- **Individual Sheath:** Polyvinyl Chloride (PVC)
- **Outer Sheath:** Flame Retardant Polyvinyl Chloride (PVC-FR)
- **Sheath Colour:** Violet

## 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 EX ICAM Screen Extension 250V Cable - Dimensions

Reference	Conductor Size (mm <sup>2</sup> )	No Of Pairs	Overall Diameter(Lower)	Overall Diameter(Upper)	Weight(Kg/Km)
TCOUPXICAM3X2X/5	0.50	3	11.10	12.80	180
TCOUPXICAM7X2X/5	0.50	7	15.30	17.70	335
TCOUPXICAM12X2X/5	0.50	12	19.90	22.90	540
TCOUPXICAM19X2X/5	0.50	19	24.60	28.10	830
TCOUPXICAM27X2X/5	0.50	27	28.70	33.30	1145

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