

ASH INSTRUMENTATION
MULTI PAIR THERMO/XLPE or PVC/ INDIVIDUAL + OVERALL SHIELDED, UNARMORED
THERMOCOUPLE CABLES
UL 13 / UL 2250, PLTC / ITC, 90°C / 300V, ANSI MC 96.1
Sunlight & Oil Resistant, Flame Retardant

APPLICATION

Generally applied as temperature-measuring devices for thermowells and process measurement detection system.
The cables are recommended for indoor and outdoor installation in dry and wet locations, in cable racks and trays, in conduits and suitable for direct burial.

STANDARDS

API RP 551	Process Measurement Instrumentation
ANSI MC 96.1	TEMPERATURE MEASUREMENT THERMOCOUPLES
PLTC TO UL 13	Power-limited tray cable, per NFPA 70, NEC Article 725
ITC TO UL2250	Instrumentation tray cable, per NFPA 70, NEC Article 727.

CONSTRUCTION DETAILS

CONDUCTOR	Thermocouple Extension wires. (Table 1)
INSULATION	Crosslinked Polyethylene (XLPE) rated 90°C or Polyvinyl Chloride (PVC) rated 90°C.
COLOR CODES	-Pairs: Black/White with successive numbers on each core.
PAIRS	Two or Three cores are twisted into Pairs/Triads, in suitable lay length.
INDIVIDUAL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
ASSEMBLY	The required number of pairs/triads are assembled with non-hygroscopic fillers (if required) and wrapped with a polyester binder tape
OVERALL SHIELDING	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with stranded tinned copper drain wire.
OUTER JACKET	Poly Vinyl Chloride Flame Retardant Sunlight and Oil Resistant.

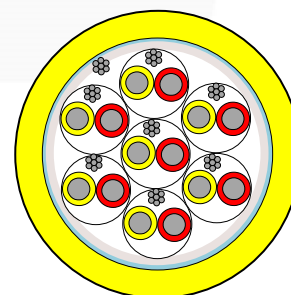
TABLE 1: TYPES AND COLOR CODES OF THERMOCOUPLE CABLES

TYPE	THERMOCOUPLE MATERIAL		IEC 60584 Insulation and Jacket Color			ANSI MC 96.1 Insulation and Jacket Color		
	Positive Leg (+)	Negative Leg (-)	Positive Leg (+)	Negative Leg (-)	Jacket	Positive Leg (+)	Negative Leg (-)	Jacket
K	Nickel-Chromium	Nickel-Aluminium	Green	White	Green	Yellow	Red	Yellow
E	Nickel-Chromium	Copper Nickel	Purple	White	Purple	Purple	Red	Purple
J	Iron	Copper Nickel	Black	White	Black	White	Red	Black
T	Copper	Copper Nickel	Brown	White	Brown	Blue	Red	Blue
N	Nickel-Chromium Silicon	Nickel-Silicon	Pink	White	Pink	Orange	Red	Orange

Types	Temperature Range
K	-20°C to 200°C
E	-20°C to 200°C
J	-20°C to 200°C
T	-59°C to 68°C
N	-20°C to 200°C

PHYSICAL & ENVIRONMENTAL PROPERTIES

Oil Resistance	Passes UL test (Oil 1)
Sunlight Resistance	Passes UL-1581 test (720 hours)
Minimum Bending Radius	10xCable Outside Diameter



ASH INSTRUMENTATION
MULTI PAIR THERMO/XLPE or PVC/ INDIVIDUAL + OVERALL SHIELDED, UNARMORED
THERMOCOUPLE CABLES
UL 13 / UL 2250, PLTC / ITC, 90°C / 300V, ANSI MC 96.1
Sunlight & Oil Resistant, Flame Retardant

THERMOCOUPLE KX TYPE

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/ TRIAD	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
IJKX-02P18AWG-UYL6D	18(1X1.02)	2P	1.02	9.50	95
IJKX-04P18AWG-UYL6D		4P	1.27	11.30	140
IJKX-06P18AWG-UYL6D		6P	1.27	13.50	220
IJKX-08P18AWG-UYL6D		8P	1.27	14.20	270
IJKX-10P18AWG-UYL6D		10P	1.52	17.20	380
IJKX-12P18AWG-UYL6D		12P	1.52	17.50	400
IJKX-16P18AWG-UYL6D		16P	1.52	20.40	510
IJKX-24P18AWG-UYL6D		24P	1.78	24.50	800
IJKX-02P16AWG-UYL6D	16 (1X1.29)	2P	1.27	11.00	130
IJKX-04P16AWG-UYL6D		4P	1.27	12.50	215
IJKX-06P16AWG-UYL6D		6P	1.27	14.80	299
IJKX-08P16AWG-UYL6D		8P	1.52	17.10	400
IJKX-10P16AWG-UYL6D		10P	1.52	19.50	500
IJKX-12P16AWG-UYL6D		12P	1.52	20.00	580
IJKX-16P16AWG-UYL6D		16P	1.52	22.20	700
IJKX-24P16AWG-UYL6D		24P	1.78	27.80	1050

THERMOCOUPLE TX TYPE

ASH CABLES ITEM CODE	Cross Sectional Area (AWG) (No. of wire X SIZE mm)	NO. OF PAIRS/ TRIAD	Jacket Thickness (nom.) (mm)	Overall diameter Approx. (mm)	Net Weight Approx. (Kg/km)
IJTX-02P18AWG-UYL6D	18(1X1.02)	2P	1.02	9.40	90
IJTX-02P18AWG-UYL6D		4P	1.27	11.20	138
IJTX-02P18AWG-UYL6D		6P	1.27	13.50	222
IJTX-02P18AWG-UYL6D		8P	1.27	14.20	268
IJTX-02P18AWG-UYL6D		10P	1.52	17.20	378
IJTX-02P18AWG-UYL6D		12P	1.52	17.50	395
IJTX-02P18AWG-UYL6D		16P	1.52	20.40	505
IJTX-24P18AWG-UYL6D		24P	1.78	24.50	798
IJTX-02P16AWG-UYL6D	16 (1X1.29)	2P	1.27	11.00	128
IJTX-04P16AWG-UYL6D		4P	1.27	12.50	217
IJTX-06P16AWG-UYL6D		6P	1.27	14.80	300
IJTX-08P16AWG-UYL6D		8P	1.52	17.10	402
IJTX-10P16AWG-UYL6D		10P	1.52	19.50	504
IJTX-12P16AWG-UYL6D		12P	1.52	20.00	584
IJTX-16P16AWG-UYL6D		16P	1.52	22.20	705
IJTX-24P16AWG-UYL6D		24P	1.78	27.80	1054

Dimensions and Weights are subject for manufacturing Tolerance.