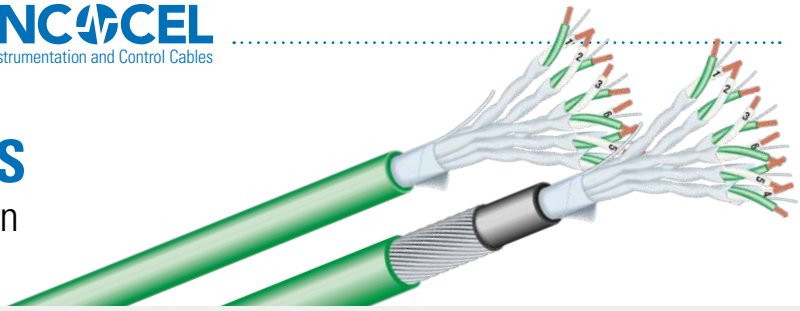
THERMOCOUPLE CABLES

Multipair Individual and Overall Screen



NOT ARMOURED
XLPE/IS/OS/LSZH

ARMOURED
XLPE/IS/OS/LSZH/SWA/LSZH

APPLICATIONS

Can be used in cable tray or conduit to connect different types of thermocouple in industrial process controls, refineries, oil and gas plants.

OPERATING TEMPERATURE

-20 °C to +80 °C (for general use); -40 °C to +90 °C (on request).

MINIMUM BENDING RADIUS

Not armoured type
12 times the outer diameter (for conductors class 1 and class 2);
10 times the outer diameter (for conductors class 5).
Armoured type
15 times the outer diameter.

CABLE CONSTRUCTION

Conductors Solid alloy.

Calibration ANSI MC 96.1 or IEC 60584-3.

Insulation PVC, PE, XLPE or LSZH thermoplastic material.

Twisting The insulated cores shall be twisted in pairs for a good reduction of the electromagnetic noise.

Individual screen Aluminium/polyester tape, coverage >100%, aluminium in contact with tinned copper drain wire.

Cabling The screened pairs are cabled with suitable non hygroscopic fillers (when necessary) and wrapped with polyester tape if required.

Overall screen Aluminium/polyester tape, coverage >100%, aluminium in contact with tinned copper drain wire.

Armoured
Inner sheath: PE, PVC or LSZH thermoplastic material.
Armour: Single layer of galvanized steel wires (SWA).

Outer sheath PVC or LSZH thermoplastic material.

APPLICABLE STANDARDS

Basic design EN 50228-7
Flame retardant IEC 60332-1
Fire retardant (cat. C or A according to requirements) IEC 60332-3
Halogen free properties (only for LSZH cables) IEC 60754-1
Low smoke emission (only for LSZH cables) IEC 61034-2

EN 50288-7 (300 V)

	UNARMOURED		ARMOURED		
Cross section (AWG)	Outer diameter (mm)	Weight (kg/km)	Diameter under armour (mm)	Outer diameter (mm)	Weight (kg/km)
20 AWG solid	U-XLPE/IS/OS/LSZH		U-XLPE/IS/OS/LSZH/SWA/LSZH		
1x2x20	5,1	51	5,1	9,5	217
2x2x20	7,7	100	7,7	12,3	369
4x2x20	8,9	150	8,9	13,5	451
6x2x20	10,6	220	10,6	15,3	666
12x2x20	14,0	360	14,0	18,9	901
16x2x20	15,6	480	15,6	21,3	1302
24x2x20	19,4	690	19,4	25,3	1647
18 AWG solid	U-XLPE/IS/OS/LSZH		U-XLPE/IS/OS/LSZH/SWA/LSZH		
1x2x18	5,8	60	5,8	10,9	252
2x2x18	8,9	140	8,9	14,2	423
4x2x18	10,3	200	10,3	15,8	652
6x2x18	12,4	280	12,4	17,9	787
12x2x18	16,4	490	16,4	22,2	1327
16x2x18	18,3	630	18,3	24,2	1572
24x2x18	22,8	930	22,8	29,0	2074
16 AWG solid	U-XLPE/IS/OS/LSZH		U-XLPE/IS/OS/LSZH/SWA/LSZH		
1x2x16	6,8	63	6,8	12,0	283
2x2x16	10,7	180	10,7	16,2	473
4x2x16	12,6	270	12,6	18,1	742
6x2x16	15,1	360	15,1	20,8	911
12x2x16	20,3	640	20,3	26,2	1496
16x2x16	22,6	860	22,6	28,7	1915
24x2x16	28,4	1250	28,4	35,5	2663

approximate values

Electrical Characteristics			
Cross section (AWG)	20	18	16
Capacitance (pF/m)	≤150	≤150	≤150
L/R (µH/Ohm)	≤25	≤25	≤25