



# THERMOCOUPLE CABLES

Multipair Individual and Overall Screen, Armoured and Lead Sheathed

XLPE/IS/OS/LSZH/LC/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 plant.

Excellent protection against corrosion, humidity and poor vibration resistance.

## OPERATING TEMPERATURE

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

## MINIMUM BENDING RADIUS

20 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.

**Bedding** PVC or LSZH thermoplastic material.

**Lead Sheath** Lead alloy.

**Inner sheath** 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)

Cross section (AWG)	Diameter under armour (mm)	Outer diameter (mm)	Weight (kg/km)
20 AWG solid	U-XLPE/IS/OS/LSZH/LC/LSZH/SWA/LSZH		
1x2x20	7,1	13,3	716
2x2x20	10,8	17,2	1218
4x2x20	12,5	18,9	1488
6x2x20	14,8	21,4	2198
12x2x20	19,6	26,5	2973
16x2x20	21,8	29,8	4297
24x2x20	27,2	35,4	5435
18 AWG solid	U-XLPE/IS/OS/LSZH/LC/LSZH/SWA/LSZH		
1x2x18	8,1	15,3	832
2x2x18	12,5	19,9	1396
4x2x18	14,4	22,1	2152
6x2x18	17,4	25,1	2597
12x2x18	23,0	31,1	4379
16x2x18	25,6	33,9	5188
24x2x18	31,9	40,6	6844
16 AWG solid	U-XLPE/IS/OS/LSZH/LC/LSZH/SWA/LSZH		
1x2x16	9,5	16,8	934
2x2x16	15,0	22,7	1561
4x2x16	17,6	25,3	2449
6x2x16	21,1	29,1	3006
12x2x16	28,4	36,7	4937
16x2x16	31,6	40,2	6320
24x2x16	39,8	49,7	8788

approximate values

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