

THERMOCOUPLE

EXTENSION CABLES

ShawFlex Thermocouple Extension Cables



ShawFlex Thermocouple Extension Cables offer advantages in cost and mechanical properties when used for connections between thermocouples and instruments.

Applications

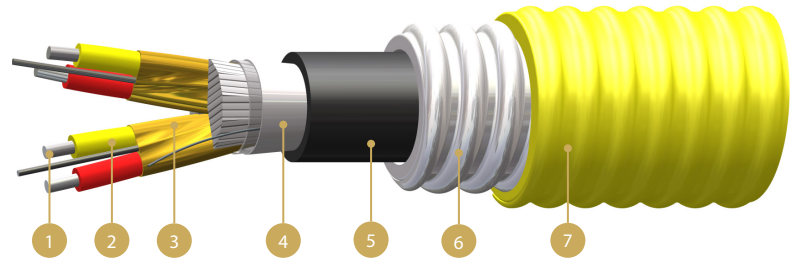
Extension cables for type E, J, K, N, R, S and T thermocouple devices

Constructions

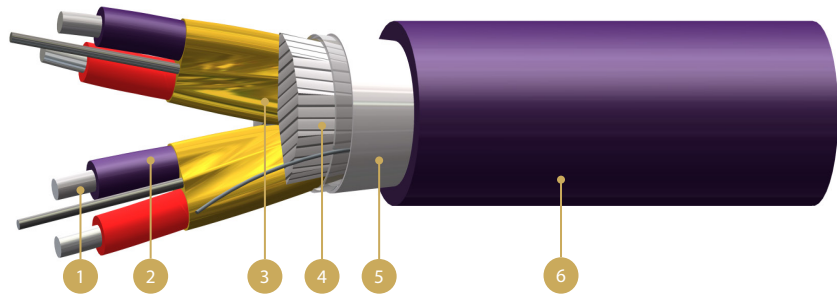
- 20 AWG to 16 AWG conductors
- PVC and XLPE insulation, PVC/Nylon (TFN) is an option
- 150V, 300V & 600V
- Armored and unarmored
- Shielded and unshielded
- Tray cable available with unarmored construction

Approvals

- CSA C22.2 NO. 239, Control and Instrumentation Cables (Type CIC, ACIC)
- CSA C22.2 NO. 174, Cables and Cable Glands for Use in Hazardous Locations
- CSA C22.2 NO. 230, Tray Cables (TC)
- CSA FT4, UL 1685, Vertical Tray Flame Test rated
- IEEE 383 & 1202 (70,000 BTU/hr), Vertical Flame Test rated
- ICEA T-30-520 (70,000 BTU/hr), Vertical Flame Test rated
- UL 1277, Electrical Power and Control Tray Cables (TC)
- UL 2250, Instrumentation Tray Cables (ITC)
- UL 13, Power Limited Tray Cables (PLTC)
- XLPE (RW90 rated), 90°C wet/105°C dry
- XLPE (RFH-2 rated), 90°C wet/dry
- - 40°C cold bend/cold impact rated
- - 25°C cold install rated (XLPE insulation)
- Direct burial rated
- "ER" rated for exposed runs (UL)
- UV sunlight resistant "SUN RES" (all colours)
- Rated for use in hazardous locations:
 - Class I Zone 0 (Intrinsically Safe cables only)
 - Class I Zone 1 (Div 1) / Class I Zone 2 (Div 2)
 - Class II Zone 20, 21 (Div 1) / Class II Zone 22 (Div 2)
 - HL-BCD gas groups rated (Armoured cables only)
 - TC-BCD gas groups rated (Tray cables only)



1. Thermocouple Alloys
2. Insulated Thermocouple Alloy Wires
3. Individual Aluminum/Mylar Shielded Pairs with Tinned Copper Drain Wire
4. Overall Aluminum/Mylar Shield with Tinned Copper Drain Wire
5. Inner Protective Jacket
6. Aluminum Interlocked Aluminum (AIA) or Steel Interlocked Armour (SIA)
7. Outer Protective Jacket



1. Thermocouple Alloys
2. Insulated Thermocouple Alloy Wires
3. Individual Aluminum/Mylar Shielded Pairs with Tinned Copper Drain Wire
4. Polypropylene Fillers
5. Overall Aluminum/Mylar Shield with Tinned Copper Drain Wire
6. Protective Jacket

Head Office

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EXTENSION CABLES

	Shielding	Type	EX	JX	KX	NX	RX	SX	TX	KCB
CSA Cables										
PVC Insulated/Tray	OS	CIC/TC	●	●	●	●	●	●	●	●
	ISOS	CIC/TC	●	●	●	●	●	●	●	●
XLPE Insulated/Tray	OS	CIC/TC	●	●	●	●	●	●	●	●
	ISOS	CIC/TC	●	●	●	●	●	●	●	●
PVC Insulated Armoured	OS	ACIC	●	●	●	●	●	●	●	●
	ISOS	ACIC	●	●	●	●	●	●	●	●
XLPE Insulated Armoured	OS	ACIC	●	●	●	●	●	●	●	●
	ISOS	ACIC	●	●	●	●	●	●	●	●
UL Cables										
PVC Insulated	OS	PLTC/ITC	●	●	●	●	●	●	●	●
	ISOS	PLTC/ITC	●	●	●	●	●	●	●	●
XLPE Insulated	OS	PLTC/ITC	●	●	●	●	●	●	●	●
	ISOS	PLTC/ITC	●	●	●	●	●	●	●	●
XLPE Insulated Tray	OS	TC	●	●	●	●	●	●	●	●
	ISOS	TC	●	●	●	●	●	●	●	●

ANSI Code	Color Coding			Alloy Combinations		Temperature Range		Standard Limits of Error	
	Positive Wire	Negative Wire	Outer Jacket	Positive	Negative				
EX	Purple	Red	Purple	Ni Cr	Cu Ni	0 to 200°C	32 to 392°F	+1.7°C	+3.1°F
JX	White	Red	Black	Fe	Cu Ni	0 to 200°C	32 to 392°F	+2.2°C	+4.0°F
KX	Yellow	Red	Yellow	Ni Cr	Ni Al	0 to 200°C	32 to 392°F	+2.2°C	+4.0°F
NX	Orange	Red	Orange	Ni Cr Si	Ni Si	0 to 200°C	32 to 392°F	+2.2°C	+4.0°F
RX	Black	Red	Green	Cu	Copper alloy	0 to 200°C	32 to 392°F	+5.0°C	+9.0°F
SX	Black	Red	Green	Cu	Copper alloy	0 to 200°C	32 to 392°F	+5.0°C	+9.0°F
TX	Blue	Red	Blue	Cu	Cu Ni	0 to 200°C	32 to 392°F	+1.0°C	+1.8°F
KCB	Black	Red	Yellow	Cu	Cu Ni	0 to 180°C	32 to 356°F	+2.2°C	+4.0°F

Temperature Rating

CSA

- Insulation:
 - XLPE - 90°C wet/ 105°C dry
 - PVC - 90°C wet/105°C dry
- Jacket:
 - PVC - 90°C rated
 - PVC LAG - 90°C rated
 - Thermoplastic LSZH - 90°C rated

UL

- Insulation:
 - XLPE (Tray) - 90°C wet/dry
 - XLPE (PLTC/ITC) - 60°C wet/105°C dry
 - PVC (PLTC/ITC) - 60°C wet/105°C dry
 - PVC/Nylon (Tray) - 75°C wet/90°C dry
- Jacket:
 - PVC - 90°C rated
 - PVC LAG - 90°C rated
 - Thermoplastic LSZH - 75°C rated
 - Thermoplastic/Thermoset CPE - 90°C rated

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