Raychem®

CI

D100
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011A

2-hour fire-rated, polymer insulated, fire alarm cable

Polymer insulated fire-rated twisted pair cable for protection of critical fire alarm circuits.

Raychem® CI is a 2-hour fire-rated fire alarm cable. When installed in accordance with the requirements of the relevant U.S. and Canadian codes, Raychem CI meets the survivability requirements for fire alarm circuits as outlined in the National Fire Alarm Code (NFPA 72), Article 760 of the National Electrical Code (NFPA 70) and the Canadian National Building Code.

Raychem CI fire alarm cables are 2-hour fire-rated to UL 2196 (and ULC S139 when installed in conduit). If installing CI in conduit, install in accordance with the details described in Electrical Circuit Protective System (FHIT), System No. 22 of the UL Fire Resistance Directory.

Raychem CI is:
- UL Classified as 2-hour fire resistive cable per UL 2196 (utilization voltage 72 V to ground max.)
- UL Listed Type FPL-CI and NPLF-CI fire alarm cable intended for use in fire alarm circuits
- ULC Listed as 2-hour fire-rated to ULC S139 (utilization voltage 72 V to ground max.)
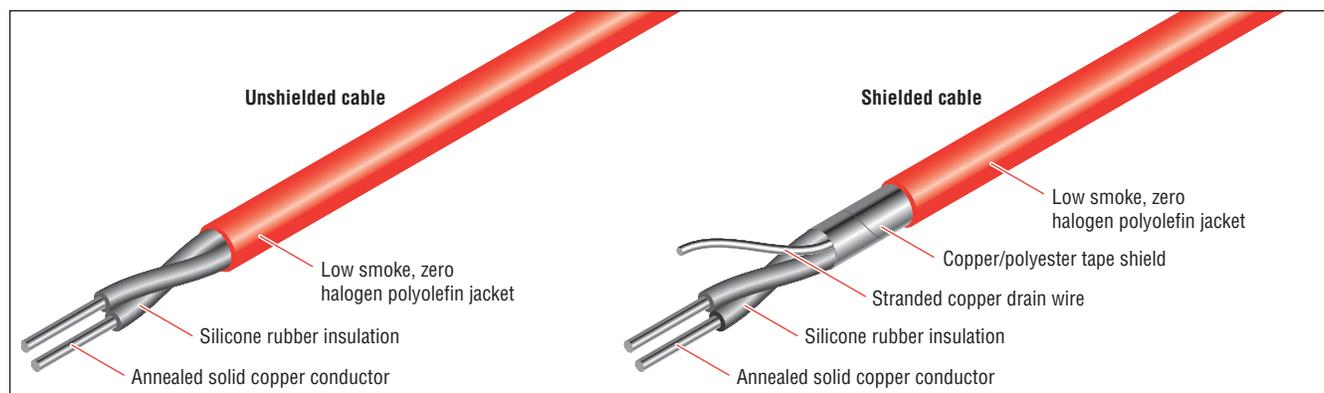- CSA Certified as Type FAS 90

Applications include the main trunk or "backbone" of multiplex alarm systems in high-rise buildings and institutions, and from each data-gathering panel to the point they enter the notification zone being served.

Raychem CI is ideal for:
- High-rise buildings, for fire alarm and voice communication systems.
- Hospitals and other institutions where mobility is limited, for emergency communication systems.
- Tunnels and subways, for the emergency voice communication system.
- Airports, stadiums, hotels, banks, etc.

For additional information, contact your Tyco Thermal Controls representative or call Tyco Thermal Controls at (800) 545-6258.

Unshielded cable
- Low smoke, zero halogen polyolefin jacket
- Silicone rubber insulation
- Annealed solid copper conductor

Shielded cable
- Low smoke, zero halogen polyolefin jacket
- Copper/polyester tape shield
- Stranded copper drain wire
- Silicone rubber insulation
- Annealed solid copper conductor

Cable Construction

Conductors	Annealed solid copper, designed to ensure tensile strength under fire conditions. Class "B" stranded conductor is also available. Contact Tyco Thermal Controls for more information.
Insulation	Conductors are insulated with a 35 mil layer of thermoset low smoke zero halogen silicone rubber.
Circuit identification	Conductor insulation is printed with "1-Black" and "2-Red" respectively.
Shielded construction	Conductors are twisted together along with a flexible stranded bare copper drain wire. This assembly is helically wrapped with a laminated copper/polyester foil tape in continuous contact with the drain wire.
Unshielded construction	Conductors are twisted together with a helically applied polyester binder tape.
Jacket	The shielded cable core is covered with an extruded layer of red flame-retardant, low smoke, zero halogen polyolefin.
Cable identification	Cable outer jacket is printed with cable identification and sequential footage markers.

Cable Type Designation

Cable Type	Standard
FPL-CI	UL 1424
NPLF-CI	UL 1425
FPLR-CI	UL 1666 (Applies to shielded cable only)
NPLFR-CI	UL 1666 (Applies to shielded cable only)
CL3R-CI	UL 13 (Class 3 Remote Control, Signalling and Power Limited cable)
FAS 90	CSA C22.2 No. 208 (FT4 Flame Rating)

Cable Specifications (nominal)

Product Code	Number of conductors	Conductor size (AWG)	Insulation thickness (mils)	Jacket thickness (mils)	Cable diameter (in)	Cable diameter (mm)	Weight (lbs/kft)	Weight (kg/km)	Capacitance (pF/ft)	Capacitance (pF/m)
Shielded										
CI-2C18SH	2	18	35	40	0.31	7.8	49	73	26	85
CI-2C16SH	2	16	35	40	0.33	8.4	58	86	30	98
CI-2C14SH	2	14	35	40	0.36	9.1	74	110	36	118
CI-2C12SH	2	12	35	50	0.41	10.5	106	158	43	141
Unshielded										
CI-2C18UNSH	2	18	35	40	0.31	7.8	43	64	15	48
CI-2C16UNSH	2	16	35	40	0.33	8.4	52	78	17	56
CI-2C14UNSH	2	14	35	40	0.36	9.1	65	97	19	62
CI-2C12UNSH	2	12	35	50	0.41	10.5	94	140	21	69

Approvals

UL Classified, 2-hour fire-resistive cable, tested to UL 2196

ULC Listed, 2-hour fire-resistant cable, tested to ULC S139-00 *

* When installed in 1/2" minimum conduit