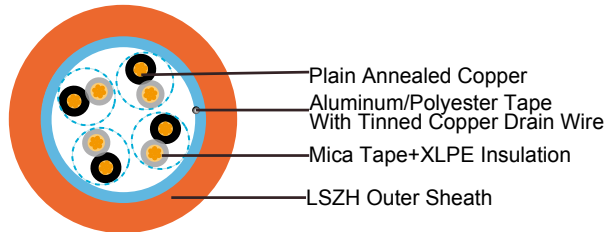




300/500V Mica+XLPE Insulated, Overall Screened Multipair Instrumentation Cables

RE-2X(St)H...CI. (CU/MGT+XLPE/OSCR/LSZH 300/500V Class 2)



APPLICATION

The cables are designed, manufactured and tested as data transmission cables for emergency services. These are used for data and voice transmission when high frequency signal has to be assured also in the event of a fire.

STANDARDS

Basic design to BS 5308/BS 7629-1

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180); BS 8434-1 (30mins); BS 5839-1 Clause 26 2d; CEI 20-36/2-1; SS299-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)
Circuit Integrity with mechanical shock	EN 50200(PH30); CEI 20-36/4-0
Circuit Integrity with mechanical shock & water spray	EN 50200 annex E
System Circuit Integrity	DIN 4102-12, E30 depending on lay system
Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard.

CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC 60228 class 2.

Insulation: Mica glass tape covered by extruded cross-linked XLPE compound.

Cabling Elements: Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk. Two-pair cable had four cores laid in quad formation.

Cabling: Pairs are cabled together. In cables with 8 pairs or more, 4 pairs are assembled to form a bunch, the bunches are then cabled together.

Overall Screen: Aluminum/polyester tape with 0.5mm² screen (7/0.3mm) tinned copper drain wire.

Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.). UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

VOLTAGE RATING

300/500 V

COLOUR CODE

Insulation Colour: White with black numberings.

Sheath Colour: Orange (other colours on request).

TYPE CODE

RE-	Instrumentation cable	H	Halogen free & zero halogen
2X	XLPE		
(St)	Static shield of aluminium tape		
CI	Circuit integrity		

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +70°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 x Overall Diameter (unarmoured cables with XLPE insulation)





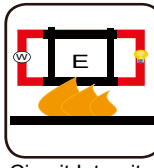





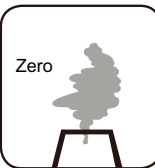
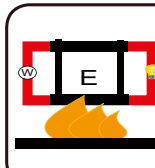
ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation Resistance	XLPE: $\geq 1000 \text{ M}\Omega \times \text{km}$ (at 20°C);
Short circuit Temperature	XLPE: 250°C

CONSTRUCTION PARAMETERS

Conductor		RE-2X(St)H...CI. RE-2G(St)H...CI.		
No. of Pairs X Cross Section	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Overall Diameter	Approx. Weight
mm ²	no./mm	mm	mm	kg/km
5 Pairs				
5X2x1.5	7/0.53	0.7	20.5	368

Note : Other conductor sizes & pair configurations are available upon request.

 300/500V Rated Voltage	 BS 5308 Standard	 Circuit Integrity IEC 60331/BS 6387 EN 50200 NF C32-070-2.3(CR1)	 Reduced Fire Propagation NF C32-070-2.2(C1) IEC60332-3-24/EN50266-2-4	 Flame Retardancy NF C32-070-2.1(C2) IEC60332-1-2/EN50265-2-1
 Low Toxicity NES 02-713/NF C 20-454	 Low Corrosivity IEC60754-2 EN50267-2-2/3 NF C 32-074	 Low Smoke Emission IEC 61034-1&2 EN 50268-1&2/NF C32-073	 Zero Halogen Free IEC60754-1 EN50267-2-1	 Functional Integrity DIN 4102-12