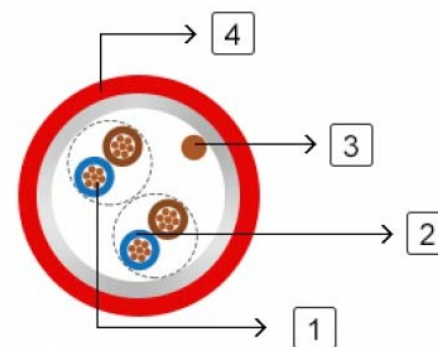


**300/500V Mica+XLPE Insulated & LSZH
Sheathed Fire Alarm Cables**



FR200P 05M2XSH-R (CU/MICA+XLPE/OS/LSZH 300/500V Class 2)

Application:

The cables are designed, manufactured and tested as data transmission cables for emergency services. These are primarily intended for indoor instrumentation and control cabling, electrically noisy environments and fire alarm systems in office buildings when high frequency signal transmission has to be assured in the event of a fire.

STANDARDS:

Basic design to BS 7629-1

FIRE PERFORMANCE

Circuit Integrity

IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180);
CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)

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Note: Asterisk * denotes superseded standard.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

1. Conductors: Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.
2. Insulation: Mica glass tape covered by extruded cross-linked XLPE compound or cross-linked compound type EI5 as per BS 7655: section 5.1.

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.

3. Overall screen: Aluminum/polyester tape with tinned copper drain wire.
4. 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.)

COLOUR CODE

Insulation Colour: According to IEC 60189-2 (other colour code on request).

Sheath Colour: Colour red (other colours on request).

Physical AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C - +90°C

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

Minimum bending radius: 8 x Overall Diameter

CONSTRUCTION PARAMETERS

Cable Code	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
mm2	mm	mm	mm	kg/km
1 Pairs				
1x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	0.8	7.8	64
1x2x1FR200P 05M2XSH-R (PH30)	0.6	0.9	8.4	73
1x2x1.5FR200P 05M2XSH-R (PH30)	0.7	0.9	9.3	87
2 Pairs				

2x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	0.9	10.7	118
2x2x1 FR200P 05M2XSH-R (PH30)	0.6	1.0	11.5	136
2x2x1.5 FR200P 05M2XSH-R (PH30)	0.7	1.0	13.0	165
5 Pairs				
5x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	1.1	14.8	218
5x2x1 FR200P 05M2XSH-R (PH30)	0.6	1.2	15.7	266
5x2x1.5 FR200P 05M2XSH-R (PH30)	0.7	1.3	18.1	342
10 Pairs				
10x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	1.3	20.1	380
10x2x1 FR200P 05M2XSH-R (PH30)	0.6	1.4	21.3	455
10x2x1.5 FR200P 05M2XSH-R (PH30)	0.7	1.5	24.8	606
15 Pairs				
15x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	1.4	24.9	535
15x2x1 FR200P 05M2XSH-R (PH30)	0.6	1.5	26.5	646
15x2x1.5 FR200P 05M2XSH-R (PH30)	0.7	1.6	30.8	862
20 Pairs				
20x2x0.75 FR200P 05M2XSH-R (PH30)	0.6	1.5	28.2	680
20x2x1 FR200P 05M2XSH-R (PH30)	0.6	1.6	30.2	839
20x2x1.5 FR200P 05M2XSH-R (PH30)	0.7	1.8	34.9	112