



**Caledonian**

**AIRPORT  
ULV Cables**



## AIRPORT ULV CABLES

### **FAS (Fire Alarm System)**

Detector Cable FFX200 05SZ1-R/F 1P1.5.....	3
Fire Communication Cable FFX200 05SZ1-R/F 1P1.5.....	5
Sounder Cable FFX200 05SZ1-R/F 2G1.5.....	7
Control Cable FFX200 05SZ1-R/F 2G2.5.....	9
RS485 Data Cable RE-02Y(St)H 1P18A.....	11

### **SACS (Security Access Control System)**

RS485 Data Cable RE-02Y(St)H 1P18A.....	13
Push Button Cable FFX200 05mRZ1-R/F 2G0.5.....	15
Lock Cable FFX200 05mRZ1-R/F 2G1.0.....	17
Card Reader Cable FFX200 05mRZ1-R/F 6G0.5.....	19

### **CCTV (Closed Circuit TV)**

Video Cable KX6 LH-FR.....	21
RS485 Data Cable RE-02Y(St)H 1P18A.....	23

### **PAS (Public Address System)**

Loudspeaker Cable FFX200 05mRZ1-R/F 2G1.0.....	25
RS485 Data Cable RE-02Y(St)H 1P18A.....	27

### **BMS (Building Management System)**

Digital Signal Cable FFX200 05mRZ1-R/F 2G1.0.....	29
Analog Signal Cable FFX200 05mROZ1-R/F 2G1.0.....	31
RS485 Data Cable RE-02Y(St)H 1P18A.....	33
Temperature Control Cable FFX200 05mRZ1-R/F 6G0.5.....	35
Analog Signal Cable FFX200 05mROZ1-R/F 2G1.5.....	37

### **CPMS (Car Park Management System)**

Communication Cable FFX200 05mROZ1-R/F 3P0.75.....	39
Talk-back Cable FFX200 05mROZ1-R/F 2G1.0.....	41

### **Current Carrying Capacities and Voltage Drop**

Current Carrying Capacities and Voltage Drop.....	43
---	----

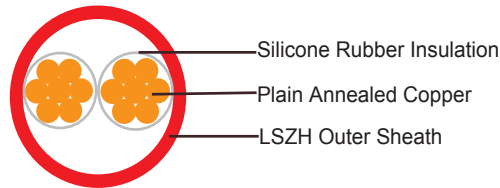


## FAS (Fire Alarm System)

### Detector Cable , FFX200 05SZ1-R/F 1P1.5

FFX200 05SZ1-R 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 5)



## APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034/1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32-070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Twisting:** Cores are twisted into pairs with varying lay length to minimize crosstalk  
**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	300 MΩ x km (at 20°C)
Short circuit temperature	350°C

### 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 × Overall Diameter

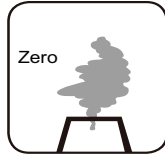
### CONSTRUCTION PARAMETERS

FFX200 05SZ1-R 1P1.5  
 FFX200 05SZ1-F 1P1.5

No. of pair x	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
1	1.5	7/0.53	0.5	0.5	7.0	60
1	1.5	30/0.25	0.5	0.5	7.0	60



Standard



Halogen Free  
IEC60754-1



No Corrosive  
Gas Emission  
IEC60754-2



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## FAS (Fire Alarm System)

### Fire Communication Cable, FFX200 05SZ1-R/F 1P1.5

FFX200 05SZ1-R 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 5)



## APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034/1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32-070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Twisting:** Cores are twisted into pairs with varying lay length to minimize crosstalk  
**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	300 MΩ x km (at 20°C)
Short circuit temperature	350°C

### 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 × Overall Diameter

### CONSTRUCTION PARAMETERS

FFX200 05SZ1-R 1P1.5  
 FFX200 05SZ1-F 1P1.5

No. of pair x	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
1	1.5	7/0.53	0.5	0.5	7.0	60
1	1.5	30/0.25	0.5	0.5	7.0	60



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



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



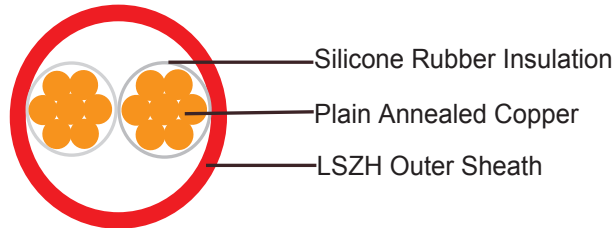
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## FAS (Fire Alarm System) Sounder Cable FFX200 05SZ1-R/F 2G1.5

FFX200 05SZ1-R 2G1.5 (CU/SR/LSZH 2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 2G1.5 (CU/SR/LSZH 2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034/1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	300 MΩ x km (at 20°C)
Short circuit temperature	350°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

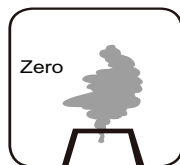
FFX200 05SZ1-R 2G1.5

FFX200 05SZ1-F 2G1.5

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.5	7/0.53	0.5	0.5	7.0	70
2	1.5	30/0.25	0.5	0.5	7.0	70



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07



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



Fire Resistance  
IEC 60331  
NF C 32070-2.3(CR1)

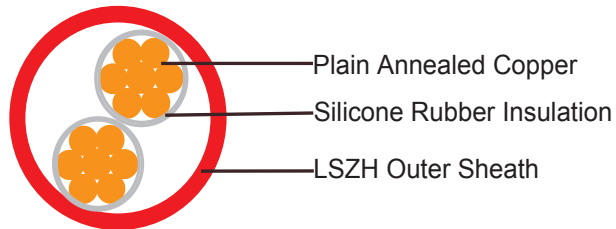


## FAS (Fire Alarm System)

### Control Cable FFX200 05SZ1-R/F 2G2.5

FFX200 05SZ1-R 2G2.5 (CU/SR/LSZH 2×2.5mmsq 300/500V class 2)

FFX200 05SZ1-F 2G2.5 (CU/SR/LSZH 2×2.5mmsq 300/500V class 5)



## APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables are designed specially for fire alarm systems where the integrity of the electrical circuit is critical in maintaining power supply. Applications can be found in emergency lightings, control and power circuits, power stations, fire alarm systems, underground.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	300 MΩ x km (at 20°C)
Short circuit temperature	350°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

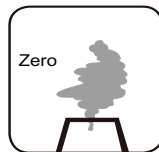
FFX200 05SZ1-R 2G2.5

FFX200 05SZ1-F 2G2.5

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	2.5	7/0.67	0.8	1.0	9.0	105
2	2.5	50/0.25	0.8	1.0	9.0	105



Standard



Halogen Free  
IEC60754-1



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



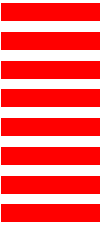
Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



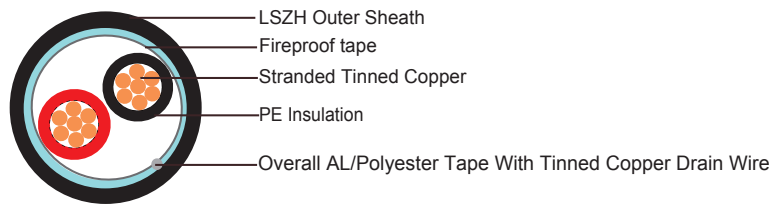
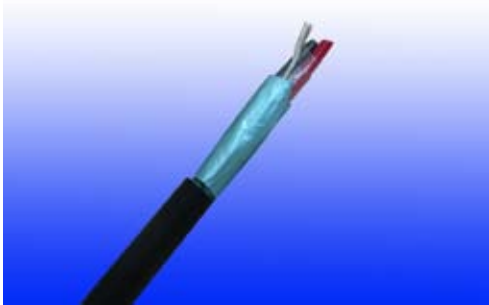
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## FAS (Fire Alarm System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



## APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

Basic design	EIA/TIA 485
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331-23 / NF C 32-070-2.3(CR1)

## CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

<b>Dielectric test</b>	1000 V r.m.s. for 5' (core-core)
	1000 V r.m.s. for 5' (core-screen)
<b>Impedance</b>	120Ω
<b>Capacitance</b>	45 nF/km conductor to conductor
	90 nF/km conductor to shield

### 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 × Overall Diameter

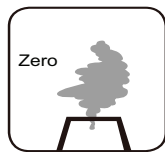
### CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

No. of pair ×	Wire Gauge	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	AWG	No/mm	mm	mm	mm	kg/km
1	18	7/0.404	1.15	1.2	10.5	100
1	18	16/0.254	1.15	1.2	10.5	100



Standard



Halogen Free  
IEC60754-1



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



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



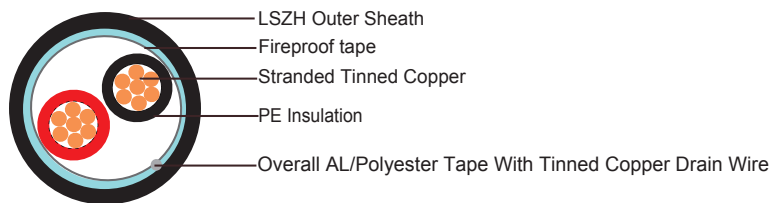
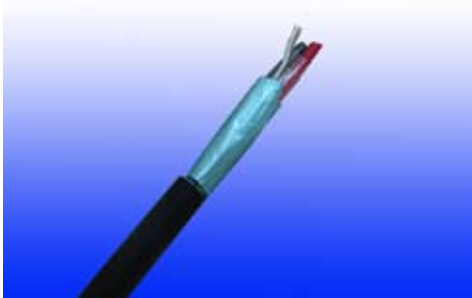
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### SACS (Security Access Control System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



### APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

### STANDARDS

Basic design	EIA/TIA 485
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331-23 / NF C 32-070-2.3(CR1)

### CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

<b>Dielectric test</b>	1000 V r.m.s. for 5' (core-core)
	1000 V r.m.s. for 5' (core-screen)
<b>Impedance</b>	120Ω
<b>Capacitance</b>	45 nF/km conductor to conductor
	90 nF/km conductor to shield

## 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 × Overall Diameter

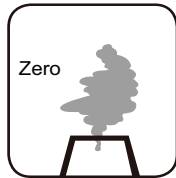
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

No.of pair ×	Wire Gauge	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	AWG	No/mm	mm	mm	mm	kg/km
1	18	7/0.404	1.15	1.2	10.5	100
1	18	16/0.254	1.15	1.2	10.5	100



Standard



Halogen Free  
IEC60754-1



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



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



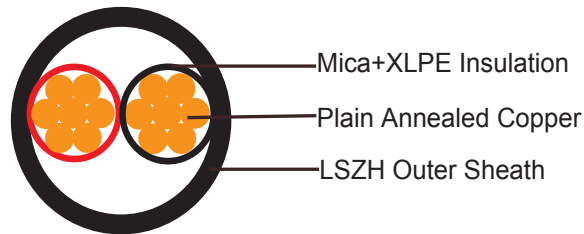
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## SACS (Security Access Control System) Push Button Cable FFX200 05mRZ1-R/F 2G0.5

FFX200 05mRZ1-R 2G0.5 (CU/MGT+XLPE/LSZH 2×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G0.5 (CU/MGT+XLPE/LSZH 2×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

### 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 × Overall Diameter

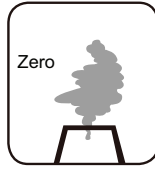
### CONSTRUCTION PARAMETERS

FFX200 05mRZ1-R 2G0.5  
 FFX200 05mRZ1-F 2G0.5

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	0.5	7/0.31	0.5	0.5	6.5	45
2	0.5	16/0.2	0.5	0.5	6.5	45



Standard



Halogen Free  
IEC60754-1



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



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

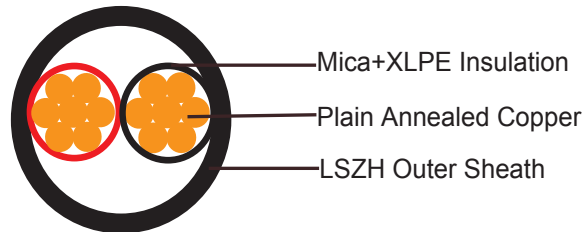


## SACS (Security Access Control System)

### Lock Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



## APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter**

## CONSTRUCTION PARAMETERS

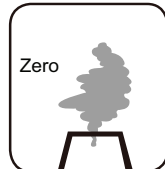
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

No. of core	Nominal Cross Sectional Area mm <sup>2</sup>	Number & Nominal Diameter of Strands No/mm	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Approx. Weight kg/km
2	1.0	7/0.44	0.5	0.5	7.1	58
2	1.0	32/0.2	0.5	0.5	7.1	58



Standard



Halogen Free  
IEC60754-1



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



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

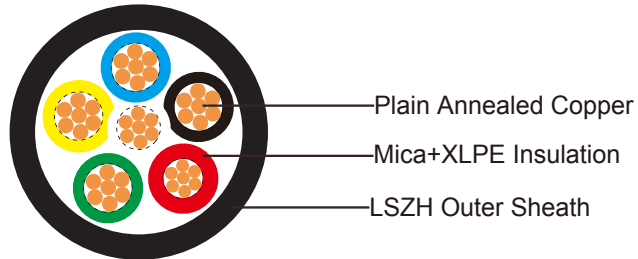


### SACS (Security Access Control System)

#### Card Reader Cable FFX200 05mRZ1-R/F 6G0.5

FFX200 05mRZ1-R 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

### 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 × Overall Diameter

### CONSTRUCTION PARAMETERS

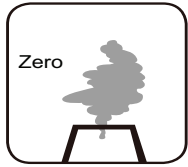
FFX200 05mRZ1-R 6G0.5

FFX200 05mRZ1-F 6G0.5

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
6	0.5	7/0.31	0.5	0.5	2.9	61
6	0.5	16/0.2	0.5	0.5	2.9	61



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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



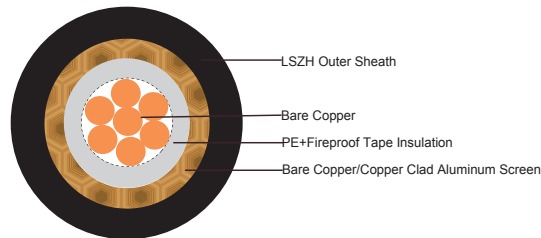
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## CCTV (Closed Circuit TV)

### Video Cable KX6 LH-FR

KX6 LH-FR



### APPLICATIONS

The cables are designed for CCTV, security, smoke detection and evacuation monitoring applications, where continued functionality is required during a fire situation. Due to the zero halogen low smoke construction, this cable is ideal for use in public, commercial and industrial environments.

### STANDARDS

Basic design	MIL-C-17
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### CABLE CONSTRUCTION

**Conductors:** Bare Copper

**Insulation:** Solid PE+fire resistant tape

**Screen:** Bare copper/copper clad aluminum(CCA)(80% coverage)

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	87.5 Ohm/Km
Outer conductor resistance	21/32.5Ohm/Km
Operating temperature range	70 °C

## PHYSICAL AND THERMAL PROPERTIES

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

Temperature range during installation (mobile state): -5°C - +60°C

Min. Bending Radius: 8 × Overall Diameter

## ATTENUATION

For bare copper braid			For CCA braid		
Frequency	Attenuation	Attenuation	Frequency	Attenuation	Attenuation
Mhz	dB/100 m	dB/ft	Mhz	dB/100 m	dB/ft
10	5.0	1.52	-	-	-
50	8.1	2.47	50	8.1	2.47
100	13	3.96	100	13	3.96
200	18.5	5.64	200	18.5	5.64
400	22.5	6.86	400	22.5	6.86
850	34.5	10.52	850	34.5	10.52
950	37.5	11.43	950	37.5	11.43
1000	45	13.72	-	-	-

## RETURN LOSS

Frequency	Return Loss
MHz	(dB)
5-1000	>=20

## CONSTRUCTION PARAMETERS

Cable Code	Number & Nominal Diameter of Strands	Nominal Insulation Diameter	Nominal Sheath Thickness	Nominal Overall Diameter
	No/mm	mm	mm	mm
KX6 LH-FR	7/0.2	3.7	1.0	6.1



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



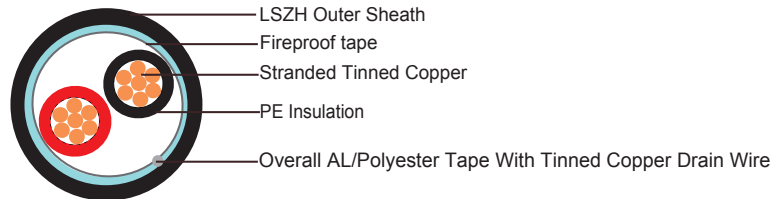
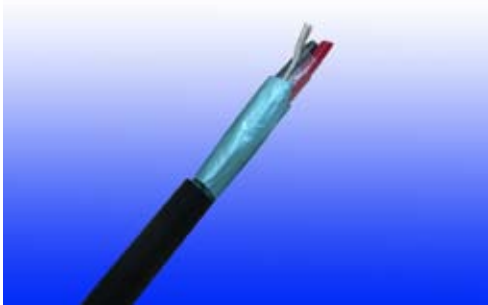
Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



**CCTV (Closed Circuit TV)**  
**RS485 Data Cable RE-02Y(St)H 1P18A**  
 RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



## APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

Basic design	EIA/TIA 485
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331-23 / NF C 32-070-2.3(CR1)

## CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

<b>Dielectric test</b>	1000 V r.m.s. for 5' (core-core)
	1000 V r.m.s. for 5' (core-screen)
<b>Impedance</b>	120Ω
<b>Capacitance</b>	45 nF/km conductor to conductor
	90 nF/km conductor to shield

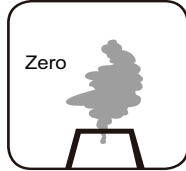
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

No. of pair ×	Wire Gauge	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	AWG	No/mm	mm	mm	mm	kg/km
1	18	7/0.404	1.15	1.2	10.5	100
1	18	16/0.254	1.15	1.2	10.5	100



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

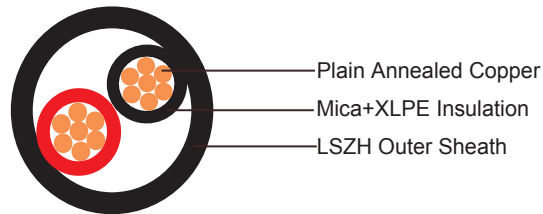


## PAS (Public Address System)

### Loudspeaker Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



## APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

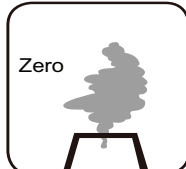
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

No.of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.0	7/0.44	0.5	0.5	5.3	47
2	1.0	32/0.2	0.5	0.5	5.3	47



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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



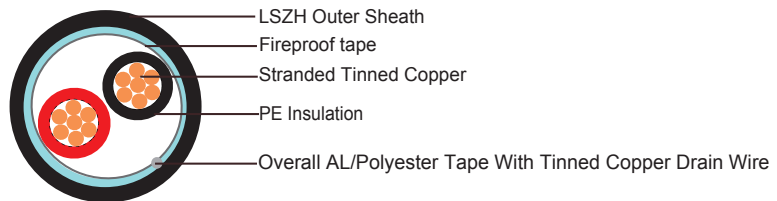
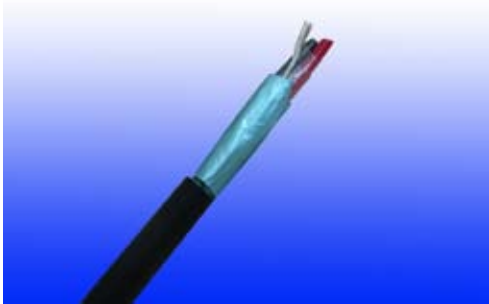
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## PAS (Public Address System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



## APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

Basic design	EIA/TIA 485
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331-23 / NF C 32-070-2.3(CR1)

## CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

<b>Dielectric test</b>	1000 V r.m.s. for 5' (core-core)
	1000 V r.m.s. for 5' (core-screen)
<b>Impedance</b>	120Ω
<b>Capacitance</b>	45 nF/km conductor to conductor
	90 nF/km conductor to shield

## 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 × Overall Diameter

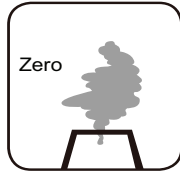
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

No. of pair	Wire Gauge	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	AWG	No/mm	mm	mm	mm	kg/km
1	18	7/0.404	1.15	1.2	10.5	100
1	18	16/0.254	1.15	1.2	10.5	100



Standard



Halogen Free  
IEC60754-1



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



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



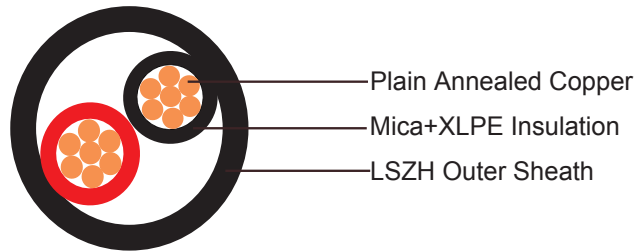
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### BMS (Building Management System) Digital Signal Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

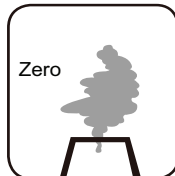
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.0	7/0.44	0.5	0.5	7.1	58
2	1.0	32/0.2	0.5	0.5	7.1	58



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

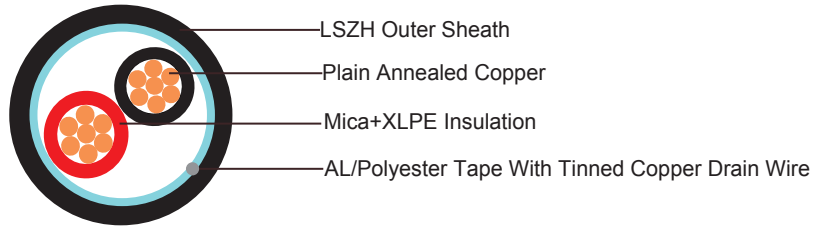
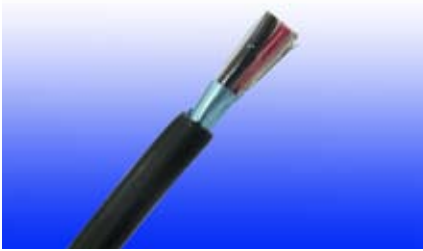


## BMS (Building Management System)

### Analog Signal Cable FFX200 05mROZ1-R/F 2G1.0

FFX200 05mROZ1-R 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 5)



## APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

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

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

### COLOUR CODE

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

### ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

### 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 × Overall Diameter

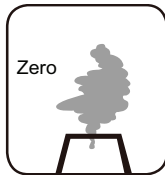
### CONSTRUCTION PARAMETERS

FFX200 05mROZ1-R 2G1.0  
 FFX200 05mROZ1-F 2G1.0

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.0	7/0.44	0.6	0.8	7.2	64
2	1.0	32/0.2	0.6	0.8	7.2	64



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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

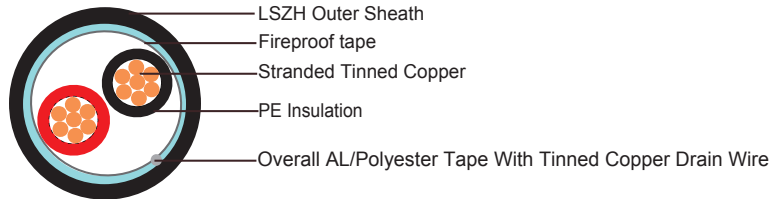
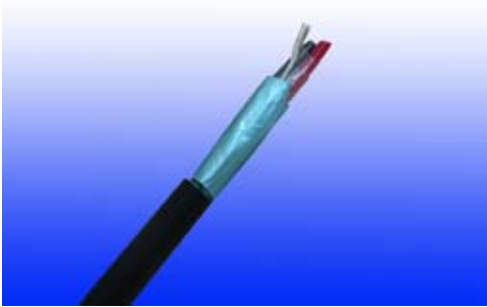


Fire Resistance  
IEC 60331  
NF C 32070-2.3(CR1)



## BMS (Building Management System) RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



### APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

### STANDARDS

Basic design	EIA/TIA 485
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331-23 / NF C 32-070-2.3(CR1)

### CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

<b>Dielectric test</b>	1000 V r.m.s. for 5' (core-core)
	1000 V r.m.s. for 5' (core-screen)
<b>Impedance</b>	120Ω
<b>Capacitance</b>	45 nF/km conductor to conductor
	90 nF/km conductor to shield

## 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 × Overall Diameter

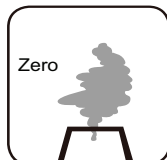
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

No. of pair	Wire Gauge	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	AWG	No/mm	mm	mm	mm	kg/km
1	18	7/0.404	1.15	1.2	10.5	100
1	18	16/0.254	1.15	1.2	10.5	100



Standard



Halogen Free  
IEC60754-1



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



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



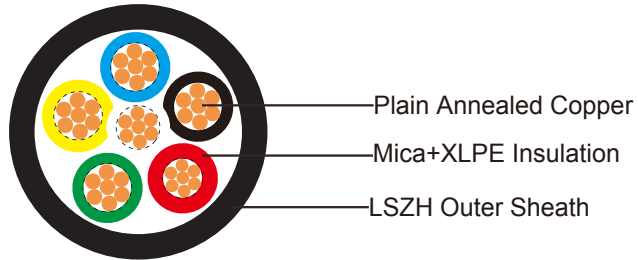
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## BMS (Building Management System) Temperature Control Cable FFX200 05mRZ1-R/F 6G0.5

FFX200 05mRZ1-R 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

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

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

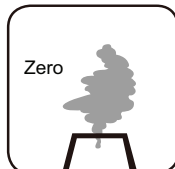
FFX200 05mRZ1-R 6G0.5

FFX200 05mRZ1-F 6G0.5

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
6	0.5	7/0.31	0.5	0.5	2.9	61
6	0.5	16/0.2	0.5	0.5	2.9	61



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

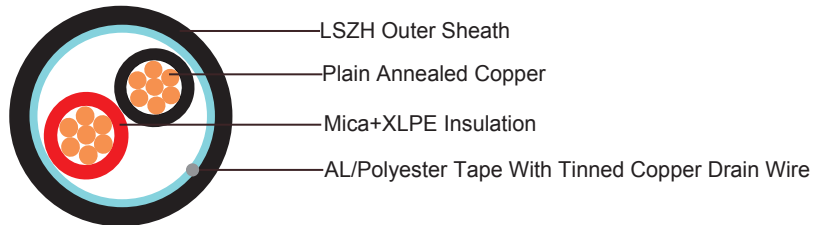


### BMS (Building Management System)

#### Analog Signal Cable FFX200 05mROZ1-R/F 2G1.5

FFX200 05mROZ1-R 2G1.5 (CU/MGT+XLPE/OSCR/LSZH 2×1.5mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.5 (CU/MGT+XLPE/OSCR/LSZH 2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629-1
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

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

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

## COLOUR CODE

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

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

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

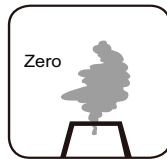
FFX200 05mROZ1-R 2G1.5

FFX200 05mROZ1-F 2G1.5

No.of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.5	7/0.53	0.6	0.8	6.5	96
2	1.5	30/0.25	0.6	0.8	6.5	96



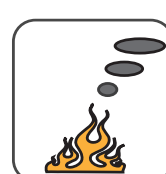
Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

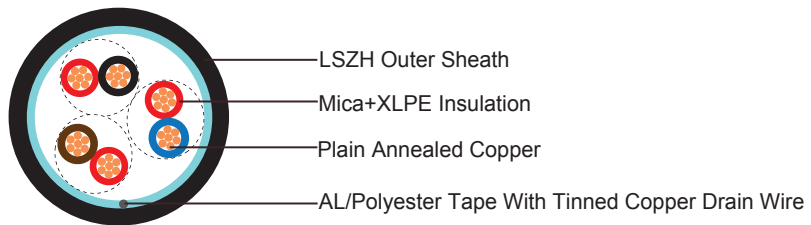


## CPMS (Car Park Management System)

### Communication Cable FFX200 05mROZ1-R/F 3P0.75

FFX200 05mROZ1-R 3P0.75 (CU/MGT+XLPE/OSCR/LSZH 3×2×0.75mmsq 300/500V class 2)

FFX200 05mROZ1-F 3P0.75 (CU/MGT+XLPE/OSCR/LSZH 3×2×0.75mmsq 300/500V class 5)



## APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

Basic design	BS 7629
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

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

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

**COLOUR CODE**

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

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

**ELECTRICAL PROPERTIES**

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

**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 × Overall Diameter

**CONSTRUCTION PARAMETERS**

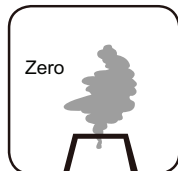
FFX200 05mROZ1-R 3P0.75

FFX200 05mROZ1-F 3P0.75

No.of pair	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
3	0.75	7/0.37	0.6	1.0	11.5	126
3	0.75	24/0.2	0.6	1.0	11.5	126



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



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



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



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

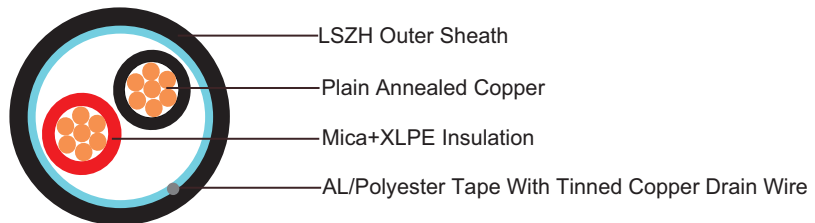


## CPMS (Car Park Management System)

### Talk-back Cable FFX200 05mROZ1-R/F 2G1.0

FFX200 05mROZ1-R 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

Basic design	BS 7629
Halogen Free	IEC 60754-1
No corrosive gas emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1/2
Reduced Fire Propagation	IEC 60332-3C / NF C 32070-2.2 (C1)
Flame Retardance	IEC 60332-1 / NF C 32-070-2.1 (C2)
Fire Resistance	IEC 60331 / NF C 32070-2.3(CR1)

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

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

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

## COLOUR CODE

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

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

## ELECTRICAL PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

## 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 × Overall Diameter

## CONSTRUCTION PARAMETERS

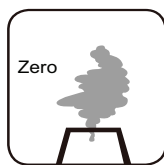
FFX200 05mROZ1-R 2G1.0

FFX200 05mROZ1-F 2G1.0

No. of core	Nominal Cross Sectional Area	Number & Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm <sup>2</sup>	No/mm	mm	mm	mm	kg/km
2	1.0	7/0.44	0.6	0.9	7.2	64
2	1.0	32/0.2	0.6	0.9	7.2	64



Standard



Halogen Free  
IEC60754-1



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



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardance  
IEC60332-1-2  
/NF C32-070-2.1(C2)



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### Current Carrying Capacities And Voltage Drop

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

#### Current-Carrying Capacities (Amp)

Conductor cross-sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (free air)		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	Horizontal flat spaced	Vertical flat spaced	Trefoil
1	2	3	4	5	6	7	8	9	10	11	12
mm <sup>2</sup>	A	A	A	A	A	A	A	A	A	A	A
1.0	13	-	-	-	15	-	-	-	-	-	-
1.5	18	17	22	19	25	23	-	-	-	-	-
2.5	24	23	30	26	34	31	-	-	-	-	-

#### Voltage Drop (Per Amp Per Meter)

Nominal Cross Section Area	2 cables d.c.	2 cables, single-phase a.c.		3 or 4 cables, 3-phase a.c.		
		Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1 and 11 (clipped direct or on trays touching)	Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1, 11 and 12 (in trefoil)	Ref. Methods 1 and 11 (Flat and touching)
1	2	3	4	5	6	7
mm <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
1.0	46	46	-	-	-	-
1.5	31	31	27	27	27	27
2.5	19	19	16	16	16	16



**Address:**

**Marchants Industrial Centre, Mill Lane, Laughton, Lewes,  
East Sussex, BN8 6AJ, UK**

**Tel: 44(0) 207 4195087**

**Fax: 44(0) 207 8319489**

**E-mail: [sales@caledoniancable.com](mailto:sales@caledoniancable.com)**

**[www.caledoniancable.com](http://www.caledoniancable.com)**

