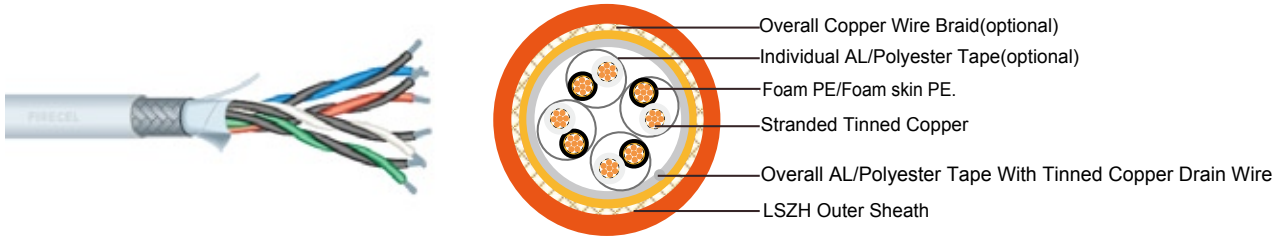


Flame Retardant RS485 Databus Cables



APPLICATION

The cables are designed for RS485 data connections where continued functionality is required during a fire situation. 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 to EIA/TIA 485

FIRE PERFORMANCE

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Note: Asterisk * denotes superseded standard..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

Multipair RS 485 Overall Screened Databus Cable

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

Insulation: Foam PE or foam skin PE.

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 concentric layers.

Overall Screen: Aluminum/polyester tape with 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.)

Multipair RS 485 Overall Double Screened Databus Cable

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

Insulation: Foam PE or foam skin PE.

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 concentric layers.

Overall Screen: Aluminium/polyester tape+copper wire braid.

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.)

Multipair RS 485 Individual & Overall Screened Databus Cable

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

Insulation: Foam PE or foam skin PE.

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 concentric layers.

Individual Screen: Individual aluminium/polyester tape.

Overall Screen: Copper wire braid.

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.)

Multipair RS 485 Overall Screened Databus Cable

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

Insulation: Foam PE or foam skin PE.

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 concentric layers.

Overall Screen: Copper wire braid.

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.)

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -20°C - +90°C

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

Minimum bending radius: 8 x Overall Diameter

ELECTRICAL PROPERTIES

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

CONSTRUCTION PARAMETERS

Multipair RS 485 Overall Screened Databus Cable

RE-02Y(St)H / RE-02YS(St)H

No. of pair x	Nominal Cross Sectional Area	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm ²	No/mm	mm	mm	mm	kg/km
1	0.22	7/0.2	0.55	0.40	4.0	21
2	0.22	7/0.2	0.55	0.40	7.1	42
4	0.22	7/0.2	0.55	0.40	8.3	68
1	0.50	16/0.2	0.55	0.40	4.6	32
2	0.50	16/0.2	0.55	0.40	8.2	68
4	0.50	16/0.2	0.55	0.40	9.8	115
1	0.75	24/0.2	0.55	0.40	5.1	40
2	0.75	24/0.2	0.55	0.40	9.1	84
4	0.75	24/0.2	0.55	0.40	10.9	144
1	1.00	30/0.2	0.55	0.40	5.2	49
2	1.00	30/0.2	0.55	0.40	9.5	105
4	1.00	30/0.2	0.55	0.40	11.2	182

Multipair RS 485 Overall Double Screened Databus Cable

RE-02Y(St)CH / RE-02YS(St)CH

No. of pair x	Nominal Cross Sectional Area	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm ²	No/mm	mm	mm	mm	kg/km
1	0.22	7/0.2	0.55	0.40	4.5	34
2	0.22	7/0.2	0.55	0.40	7.5	67
4	0.22	7/0.2	0.55	0.40	8.8	97
1	0.50	16/0.2	0.55	0.40	5.1	48
2	0.50	16/0.2	0.55	0.40	8.7	97
4	0.50	16/0.2	0.55	0.40	10.3	150
1	0.75	24/0.2	0.55	0.40	5.6	57
2	0.75	24/0.2	0.55	0.40	9.7	116
4	0.75	24/0.2	0.55	0.40	11.4	182
1	1.00	30/0.2	0.55	0.40	5.7	67
2	1.00	30/0.2	0.55	0.40	10.0	138
4	1.00	30/0.2	0.55	0.40	11.8	222



Multipair RS 485 Individual & Overall Screened Databus Cable

RE-02Y(St)H PiMF / RE-02YS(St)H PiMF

No. of pair x	Nominal Cross Sectional Area	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm ²	No/mm	mm	mm	mm	kg/km
1	0.22	7/0.2	0.55	0.40	4.4	35
2	0.22	7/0.2	0.55	0.40	7.5	69
4	0.22	7/0.2	0.55	0.40	8.8	106
1	0.50	16/0.2	0.55	0.40	5.0	49
2	0.50	16/0.2	0.55	0.40	8.7	100
4	0.50	16/0.2	0.55	0.40	10.3	159
1	0.75	24/0.2	0.55	0.40	5.5	58
2	0.75	24/0.2	0.55	0.40	9.7	119
4	0.75	24/0.2	0.55	0.40	11.2	174
1	1.00	30/0.2	0.55	0.40	5.6	68
2	1.00	30/0.2	0.55	0.40	10.0	142
4	1.00	30/0.2	0.55	0.40	11.8	234

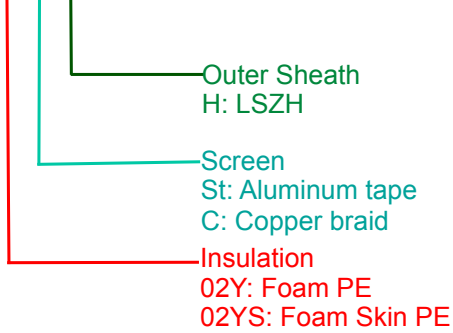
Multipair RS 485 Overall Screened Databus Cable

RE-02YCH / RE-02YSCH

No. of pair x	Nominal Cross Sectional Area	No./Nominal Diameter of Strands	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Approx. Weight
	mm ²	No/mm	mm	mm	mm	kg/km
1	0.22	7/0.2	0.55	0.40	4.3	31
2	0.22	7/0.2	0.55	0.40	7.3	61
4	0.22	7/0.2	0.55	0.40	8.5	91
1	0.50	16/0.2	0.55	0.40	4.9	44
2	0.50	16/0.2	0.55	0.40	8.5	91
4	0.50	16/0.2	0.55	0.40	10.0	142
1	0.75	24/0.2	0.55	0.40	5.4	53
2	0.75	24/0.2	0.55	0.40	9.5	109
4	0.75	24/0.2	0.55	0.40	11.2	174
1	1.00	30/0.2	0.55	0.40	5.5	63
2	1.00	30/0.2	0.55	0.40	9.8	131
4	1.00	30/0.2	0.55	0.40	11.5	213

TYPE CODES

RE-A-B-D



Rated Voltage



Standard



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



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



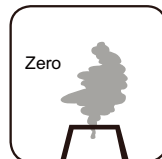
Low Toxicity
NES 02-713/NF C 20-454



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



Halogen Free
IEC60754-1
EN50267-2-1