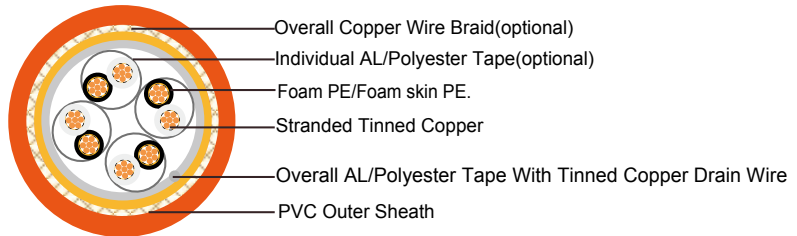
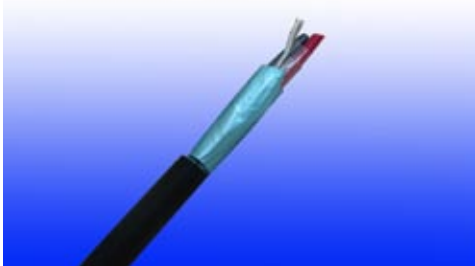




Flame Retardant RS485 Databus Cables



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 adapted 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 60332-3-22 (cat. A); IEC 60332-3-22; BS EN 60332-3-22; 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

Note: Asterisk ** denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

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 PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

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 PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

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 PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

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 PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

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)Y / RE-02YS(St)Y

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)CY / RE-02YS(St)CY

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)Y PiMF / RE-02YS(St)Y 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-02YCY / RE-02YSCY

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



Caledonian

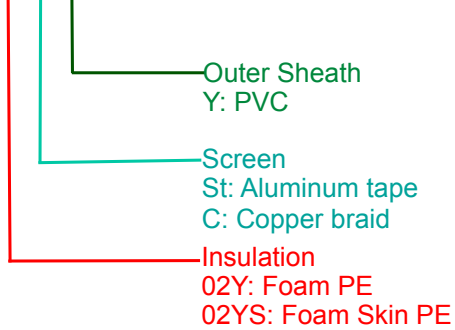
Flame Retardant Databus Cables

www.caledonian-cables.co.uk www.addison-cables.com



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)
IEC60332-3-22/EN50266-2-4