



## Construction:

Conductor	: plain copper, solid.
Insulation	: HFFR compound, HI2, VDE 0207-23.
Core identification	: VDE 0815. *cables with 2 pairs laid up as a star quad.
Pair	: laid up in layers of optimum pitch.
Lay-up	: star quads, each 5 star quads stranded in units, each unit laid up in layers.
Separator	: polyester tape.
Screen	: tinned Cu drain wire under the AL-PES tape. Phi: 0,40 mm ≤10 pairs. Phi: 0,60 mm > 10 pairs. Upon request drain wire dimension.
Outer sheath	: HFFR compound, HM2, VDE 0207-24 HFFR: Halogen-free flame retardant.
Sheath colour	: RAL 3000, Red.

## Technical data and tests:

Conductor resistance (loop)	: 0,60 mm = 65 Ω/km. 0,80 mm = 36 Ω/km. 1,00 mm = 43,8 Ω/km. 1,38 mm = 23,0 Ω/km.
Peak operating voltage	: 300 V.
Insulation resistance	: min. 100 MΩ/km.
Mutual capacitance	: max. 100 nF/km.
This value may be exceeded by 20% by cables with up to 4 pairs.	
Capacity unbalanced	: max. 300 pF / 100 mt.
20% of the values, at least one value up to 500 pF permitted.	
Test voltage	: core / core : 800 V / 1000 V.
Temperature range	: fixed: -5° C till +50° C. mobile:-30° C till +70° C.
Bending radius	: 7,5 x diameter.
Laying temperature	: -5° C...+50° C.

## Properties:

Fire retardant.  
Halogen free.  
No corrosive gases emitted.  
Low development of smoke.

## Standards:

Flame test	: IEC 60332-3 & TS/DIN EN 50266-2-4.
Smoke density test	: IEC 61034-2 & TS/DIN EN 61034-2
Halogen-free properties test	: IEC60754-1/2 & TS/DIN EN 50267-2

## Applications:

These halogen-free cables are used for fire alarm systems, signal and data communications in fixed indoor installations. The screen provides protection against external pulses. These cables are used in schools, airports, hospitals, etc. and in environments which have no corrosive gases emitted in the event of fire. In case of fire, these cables inhibit the propagation of flames whereby the development of smoke is extremely low.





## DIMENSIONS

No. of Cores x Cross Section mm <sup>2</sup>	Aprox. outer diameter mm	Copper weight kg / m	Aprox. cable weight kg / km
1x2x0,60	4,9	8	35
2x2x0,60	5,2	15	45
3x2x0,60	6,1	19	55
4x2x0,60	6,6	25	60
6x2x0,60	7,3	36	80
8x2x0,60	7,8	47	100
10x2x0,60	9,0	59	125
1x2x0,80	5,6	14	40
2x2x0,80	6,5	25	55
3x2x0,80	8,1	34	80
4x2x0,80	8,6	44	100
6x2x0,80	10,5	66	135
8x2x0,80	11,5	85	165
10x2x0,80	12,8	108	225
1x2x1	6,5	22	50
2x2x1	8,0	37	70
3x2x1	9,7	52	110
4x2x1	11,0	67	140
6x2x1	13,1	97	195
8x2x1	14,3	127	250
10x2x1	15,9	157	300
1x2x1,38	7,8	43	75
2x2x1,38	6,6	70	120
3x2x1,38	12,2	100	180
4x2x1,38	13,4	129	220
6x2x1,38	16,2	187	325
8x2x1,38	18,4	244	415
10x2x1,38	19,8	302	485

Any other sizes available on request.

