

# RD-H(ST)H Bd instrumentation cable, halogen-free



## Technical data

- Halogen-free data transmission cable adapted to DIN VDE 0815
- **Conductor resistance**  
max. 73,6 Ohm/km (0,5 mm<sup>2</sup>)  
max. 36,8 Ohm/km (1,0 mm<sup>2</sup>)
- **Temperature range**  
flexing -5°C to +50°C  
fixed installation to +70°C
- **Nominal voltage** max. 225 V
- **Test voltage**  
core/core 500 V  
core/screen 2000 V
- **Insulation resistance**  
min. 100 MOhm x km
- **Mutual capacitance**  
at 800 Hz max. 100 nF/km  
(this value may be exceeded by 20% with a make-up up to 4 pairs)
- **Impedance** at 1 kHz (nominal values)  
450 Ohm (0,5 mm<sup>2</sup>)  
320 Ohm (1,0 mm<sup>2</sup>)
- **Capacity unbalance**  
at 800 Hz max. 200 pF/100 m  
(20% of the values, but one value up to 200 pF is allowed)
- **Cross-talk attenuation**  
at min. 10 kHz, 60 dB/500 m
- **Line attenuation** at 1 kHz (nominal values)  
1,2 dB/km (0,5 mm<sup>2</sup>)  
0,9 dB/km (1,0 mm<sup>2</sup>)
- **Bending radius**  
approx. 7,5x cable Ø

## Cable construction

- Bare copper stranded wires 0,5 mm<sup>2</sup> (7x0,3) or 1,0 mm<sup>2</sup> (7x0,43)
- Core insulation, halogen-free polymer compound
- Cores twisted in pairs, with short lay-length (approx. 20 pitch/m ± 50 mm)
- 4 pairs stranded to a unit
- Holding tape units with number coding
- Units stranded in concentric layers
- Core wrapping
- Electrostatic screen of plastic coated aluminium foil and drain wire tinned, 0,5 mm<sup>2</sup>
- Outer jacket, halogen-free, polymer compound, flame resistant
- Colour grey
- Core colours  
pair no./a-core/b-core  
1/blue/red  
2/grey/yellow  
3/green/brown  
4/white/black  
(4 pairs 1 unit)

## Properties

- The static screen protects the transmission circuits against outer electrical interferences
- The halogen-free cables prevent the fire propagation and compared to PVC cables exist only a low smoke density under flame influence
- This results no decomposition products which destroy equipments, machines and buildings by corrosion

## Tests

- Flame test to DIN VDE 0482 part 266-2/ HD 405.3, BS 4066 part 3/ EN 50266-2/ IEC 60332-3 (equivalent DIN VDE 0472 part 804 test method C)
- Corrosiveness of combustion gases according to DIN VDE 0482 part 267/ EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- Smoke density according to DIN VDE 0482 part 268, HD 606, EN 50268-1+2/ IEC 61034-1+2, BS 7622 part 1+2 (equivalent DIN VDE 0472 part 816)

## Note

- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

The halogen-free data transmission cable RD-H(St)H are used for measurement and control technology for transmission of analog and digital signals up to frequencies of approx. 10 kHz. The twisted pairs with short pitches (80/50 mm for 0,5 mm<sup>2</sup>) and different lay-lengths which lead good cross-talk attenuation values in a unit.

These cables are used in inside buildings (in special cases in open air, but with sufficient protection against sunlight is necessary).

CE= The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No.pairs x diameter mm	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
20200	2 x 2 x 0,5	7,0	26,0	70,0	20
20201	4 x 2 x 0,5	9,0	46,0	110,0	20
20202	8 x 2 x 0,5	12,5	86,0	190,0	20
20203	12 x 2 x 0,5	13,5	127,0	240,0	20
20204	16 x 2 x 0,5	14,0	167,0	300,0	20
20205	20 x 2 x 0,5	16,0	209,0	360,0	20
20206	24 x 2 x 0,5	17,5	250,0	420,0	20
20207	28 x 2 x 0,5	19,0	290,0	480,0	20
20208	32 x 2 x 0,5	21,0	331,0	570,0	20
20209	36 x 2 x 0,5	21,5	372,0	614,0	20
20210	40 x 2 x 0,5	22,5	412,0	680,0	20
20211	44 x 2 x 0,5	23,5	453,0	700,0	20
20212	48 x 2 x 0,5	24,0	494,0	790,0	20
20213	64 x 2 x 0,5	30,0	658,0	1040,0	20
20214	80 x 2 x 0,5	33,0	821,0	1300,0	20
20215	96 x 2 x 0,5	36,0	986,0	1510,0	20

Part No.	No.pairs x diameter mm	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
20216	2 x 2 x 1	9,0	47,0	110,0	17
20217	4 x 2 x 1	12,0	89,0	190,0	17
20218	8 x 2 x 1	16,5	172,0	320,0	17
20219	12 x 2 x 1	17,5	255,0	435,0	17
20220	16 x 2 x 1	19,5	338,0	560,0	17
20221	20 x 2 x 1	21,0	423,0	680,0	17
20222	24 x 2 x 1	23,0	507,0	800,0	17
20223	28 x 2 x 1	27,0	590,0	905,0	17
20225	32 x 2 x 1	29,0	674,0	1080,0	17
20226	36 x 2 x 1	30,0	757,0	1260,0	17
20227	40 x 2 x 1	31,0	841,0	1330,0	17
20228	44 x 2 x 1	34,0	924,0	1410,0	17
20229	48 x 2 x 1	32,5	1008,0	1550,0	17
20230	64 x 2 x 1	39,0	1342,0	2000,0	17
20231	80 x 2 x 1	43,0	1676,0	2470,0	17
20232	96 x 2 x 1	47,0	2016,0	2970,0	17

Dimensions and specifications may be changed without prior notice.