



## Technical data

- Control cables, special PVC
- Conforms to DIN VDE 0281, 0293, 0295
- **Temperature range**  
flexing -15 °C<sup>1)</sup> to +80 °C  
fixed installation -40 °C to +80 °C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V
- **Test voltage** 4000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**  
min. 20 MOhm x km
- **Minimum bending radius**  
flexing 7,5x cable ø  
fixed installation 4x cable ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)
- <sup>1)</sup> cold bending test, impact resistance test at low temperatures, elongation test at low temperatures. Tested according VDE 0473 part 811-1-4, EN 60811-1-4

## Cable structure

- Bare copper, fine wire conductors, according to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of special PVC Z 7225
- Black cores with continuous white numbering according to DIN VDE 0293 (also available with other core colours)
- Green-yellow earth core in the outer layer (3 cores and above)
- Cores stranded in layers with optimal lay-length
- Outer sheath of special PVC, TM2 to DIN VDE 0281 part 1 and HD 21.1
- colour grey (RAL 7001)
- with meter marking, change-over in 2011

## Properties

- Extensively oil resistant, oil-/ chemical Resistance - see table Technical Informations
- PVC self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Note

- G = with green-yellow earth core;  
x = without green-yellow earth core (0Z).
- Important for assemblers: We supply any "desired length" of stranded cores without outer sheath, core insulation colour acc. RAL 9005 with number combination acc. customers requirement.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- Please note the cleanroom qualification when ordering.
- **screened analogue type:**  
**F-CY-JZ**, see page A 27  
**F-CY-0Z (LiY-CY)**, see page A 25  
**Y-CY-JB**, see page A 38  
**Y-CY-JZ**, see page A 32

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, as measuring and control cables in tool machines, conveyor belts, production lines in machinery production, in air-conditioning and in steel production.

The earth core is laid in the outer layer. Selected PVC-compounds guarantee a good flexibility as well as an economic and fast installation.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

| Part no. | No. cores x cross-sec. mm <sup>2</sup> | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|----------------------------------------|--------------------|---------------------|------------------------|---------|
| 10001    | 2 x 0,5                                | 4,9                | 9,6                 | 40,0                   | 20      |
| 10002    | 3 x 0,5                                | 5,2                | 14,4                | 46,0                   | 20      |
| 10003    | 3 x 0,5                                | 5,2                | 14,4                | 46,0                   | 20      |
| 10004    | 4 x 0,5                                | 5,6                | 19,0                | 56,0                   | 20      |
| 10005    | 4 x 0,5                                | 5,6                | 19,0                | 56,0                   | 20      |
| 10006    | 5 x 0,5                                | 6,3                | 24,0                | 65,0                   | 20      |
| 10007    | 5 x 0,5                                | 6,3                | 24,0                | 65,0                   | 20      |
| 10008    | 6 x 0,5                                | 6,9                | 29,0                | 75,0                   | 20      |
| 10009    | 7 x 0,5                                | 6,9                | 33,6                | 80,0                   | 20      |
| 10010    | 7 x 0,5                                | 6,9                | 33,6                | 80,0                   | 20      |
| 10011    | 8 x 0,5                                | 7,4                | 38,0                | 97,0                   | 20      |
| 10172    | 8 x 0,5                                | 7,4                | 38,0                | 97,0                   | 20      |
| 10012    | 10 x 0,5                               | 8,3                | 48,0                | 116,0                  | 20      |
| 10013    | 12 x 0,5                               | 8,8                | 58,0                | 135,0                  | 20      |
| 10014    | 12 x 0,5                               | 8,8                | 58,0                | 135,0                  | 20      |
| 10015    | 14 x 0,5                               | 9,7                | 67,0                | 150,0                  | 20      |
| 10183    | 16 x 0,5                               | 10,2               | 76,0                | 175,0                  | 20      |
| 10016    | 18 x 0,5                               | 11,0               | 86,0                | 196,0                  | 20      |
| 10017    | 20 x 0,5                               | 11,5               | 96,0                | 215,0                  | 20      |
| 10018    | 21 x 0,5                               | 11,5               | 101,0               | 240,0                  | 20      |
| 10019    | 25 x 0,5                               | 12,9               | 120,0               | 270,0                  | 20      |
| 10020    | 30 x 0,5                               | 13,8               | 144,0               | 310,0                  | 20      |
| 10021    | 32 x 0,5                               | 14,3               | 154,0               | 323,0                  | 20      |
| 10022    | 34 x 0,5                               | 14,9               | 163,0               | 362,0                  | 20      |
| 10023    | 40 x 0,5                               | 15,6               | 192,0               | 434,0                  | 20      |
| 10024    | 42 x 0,5                               | 16,1               | 202,0               | 449,0                  | 20      |

| Part no. | No. cores x cross-sec. mm <sup>2</sup> | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|----------------------------------------|--------------------|---------------------|------------------------|---------|
| 10025    | 50 G 0,5                               | 17,9               | 240,0               | 513,0                  | 20      |
| 10169    | 52 G 0,5                               | 17,9               | 252,0               | 534,0                  | 20      |
| 10026    | 61 G 0,5                               | 19,0               | 293,0               | 625,0                  | 20      |
| 10027    | 65 G 0,5                               | 19,7               | 312,0               | 682,0                  | 20      |
| 10028    | 80 G 0,5                               | 21,8               | 384,0               | 780,0                  | 20      |
| 10029    | 100 G 0,5                              | 24,3               | 480,0               | 980,0                  | 20      |
| 10030    | 2 x 0,75                               | 5,3                | 14,4                | 46,0                   | 18      |
| 10031    | 3 G 0,75                               | 5,6                | 21,6                | 54,0                   | 18      |
| 10032    | 3 x 0,75                               | 5,6                | 21,6                | 54,0                   | 18      |
| 10033    | 4 G 0,75                               | 6,3                | 28,8                | 66,0                   | 18      |
| 10034    | 4 x 0,75                               | 6,3                | 29,0                | 66,0                   | 18      |
| 10035    | 5 G 0,75                               | 6,9                | 36,0                | 80,0                   | 18      |
| 10036    | 5 x 0,75                               | 6,9                | 36,0                | 80,0                   | 18      |
| 10037    | 6 G 0,75                               | 7,5                | 43,0                | 99,0                   | 18      |
| 10177    | 6 x 0,75                               | 7,5                | 43,0                | 99,0                   | 18      |
| 10038    | 7 G 0,75                               | 7,5                | 50,0                | 110,0                  | 18      |
| 10039    | 7 x 0,75                               | 7,5                | 50,0                | 110,0                  | 18      |
| 10040    | 8 G 0,75                               | 8,2                | 58,0                | 130,0                  | 18      |
| 10173    | 8 x 0,75                               | 8,2                | 58,0                | 130,0                  | 18      |
| 10041    | 9 G 0,75                               | 8,8                | 65,0                | 153,0                  | 18      |
| 10042    | 10 G 0,75                              | 9,2                | 72,0                | 162,0                  | 18      |
| 10043    | 12 G 0,75                              | 9,8                | 86,0                | 179,0                  | 18      |
| 10044    | 12 x 0,75                              | 9,8                | 86,0                | 179,0                  | 18      |
| 10045    | 14 G 0,75                              | 10,6               | 101,0               | 214,0                  | 18      |
| 10046    | 15 G 0,75                              | 11,4               | 108,0               | 218,0                  | 18      |
| 10047    | 18 G 0,75                              | 12,2               | 130,0               | 257,0                  | 18      |

Continuation ►

# JZ-500 flexible, number coded, meter marking



| Part no. | No. cores x cross-sec. mm² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No. |
|----------|----------------------------|--------------------|---------------------|------------------------|---------|
| 10533    | 19 G 0,75                  | 12,7               | 137,0               | 264,0                  | 18      |
| 10048    | 20 G 0,75                  | 12,7               | 144,0               | 286,0                  | 18      |
| 10049    | 21 G 0,75                  | 12,7               | 151,0               | 320,0                  | 18      |
| 10050    | 25 G 0,75                  | 14,3               | 180,0               | 365,0                  | 18      |
| 10534    | 27 G 0,75                  | 15,2               | 195,0               | 382,0                  | 18      |
| 10051    | 32 G 0,75                  | 15,9               | 230,0               | 455,0                  | 18      |
| 10052    | 34 G 0,75                  | 16,7               | 245,0               | 510,0                  | 18      |
| 10182    | 37 G 0,75                  | 17,2               | 266,0               | 537,0                  | 18      |
| 10053    | 40 G 0,75                  | 17,2               | 288,0               | 595,0                  | 18      |
| 10054    | 41 G 0,75                  | 18,0               | 296,0               | 607,0                  | 18      |
| 10055    | 42 G 0,75                  | 18,0               | 302,0               | 612,0                  | 18      |
| 10056    | 50 G 0,75                  | 19,8               | 360,0               | 735,0                  | 18      |
| 10057    | 61 G 0,75                  | 21,2               | 439,0               | 845,0                  | 18      |
| 10178    | 65 G 0,75                  | 21,7               | 468,0               | 895,0                  | 18      |
| 10058    | 80 G 0,75                  | 24,3               | 576,0               | 1070,0                 | 18      |
| 10059    | 100 G 0,75                 | 27,0               | 720,0               | 1322,0                 | 18      |
| 10060    | 2 x 1                      | 5,6                | 19,2                | 60,0                   | 17      |
| 10061    | 3 G 1                      | 5,9                | 29,0                | 72,0                   | 17      |
| 10062    | 3 x 1                      | 5,9                | 29,0                | 72,0                   | 17      |
| 10063    | 4 G 1                      | 6,6                | 38,4                | 86,0                   | 17      |
| 10064    | 4 x 1                      | 6,6                | 38,4                | 86,0                   | 17      |
| 10065    | 5 G 1                      | 7,3                | 48,0                | 104,0                  | 17      |
| 10066    | 5 x 1                      | 7,3                | 48,0                | 104,0                  | 17      |
| 10067    | 6 G 1                      | 8,1                | 58,0                | 125,0                  | 17      |
| 10068    | 7 G 1                      | 8,1                | 67,0                | 141,0                  | 17      |
| 10069    | 7 x 1                      | 8,1                | 67,0                | 141,0                  | 17      |
| 10070    | 8 G 1                      | 8,7                | 77,0                | 175,0                  | 17      |
| 10071    | 9 G 1                      | 9,8                | 86,0                | 200,0                  | 17      |
| 10180    | 10 G 1                     | 9,8                | 96,0                | 217,0                  | 17      |
| 10170    | 10 x 1                     | 9,8                | 96,0                | 217,0                  | 17      |
| 10072    | 12 G 1                     | 10,4               | 115,0               | 230,0                  | 17      |
| 10073    | 12 x 1                     | 10,4               | 115,0               | 230,0                  | 17      |
| 10074    | 14 G 1                     | 11,4               | 134,0               | 271,0                  | 17      |
| 10075    | 16 G 1                     | 12,3               | 154,0               | 300,0                  | 17      |
| 10076    | 18 G 1                     | 12,9               | 173,0               | 343,0                  | 17      |
| 10174    | 18 x 1                     | 12,9               | 173,0               | 343,0                  | 17      |
| 10197    | 19 G 1                     | 13,0               | 182,0               | 355,0                  | 17      |
| 10077    | 20 G 1                     | 13,7               | 192,0               | 375,0                  | 17      |
| 10184    | 20 x 1                     | 13,7               | 192,0               | 375,0                  | 17      |
| 10179    | 21 G 1                     | 13,7               | 205,0               | 420,0                  | 17      |
| 10175    | 24 G 1                     | 14,7               | 230,0               | 440,0                  | 17      |
| 10078    | 25 G 1                     | 15,4               | 240,0               | 485,0                  | 17      |
| 10176    | 25 x 1                     | 15,4               | 240,0               | 485,0                  | 17      |
| 10196    | 26 G 1                     | 15,6               | 252,0               | 500,0                  | 17      |
| 10198    | 27 G 1                     | 15,8               | 259,0               | 534,0                  | 17      |
| 10168    | 30 x 1                     | 16,4               | 308,0               | 550,0                  | 17      |
| 10079    | 34 G 1                     | 17,9               | 326,0               | 650,0                  | 17      |
| 10080    | 36 G 1                     | 17,9               | 346,0               | 668,0                  | 17      |
| 10199    | 37 G 1                     | 18,4               | 355,0               | 701,0                  | 17      |
| 10081    | 40 G 1                     | 18,5               | 384,0               | 755,0                  | 17      |
| 10167    | 40 x 1                     | 18,5               | 384,0               | 755,0                  | 17      |
| 10082    | 41 G 1                     | 19,4               | 394,0               | 770,0                  | 17      |
| 10083    | 42 G 1                     | 19,4               | 403,0               | 810,0                  | 17      |
| 10084    | 50 G 1                     | 21,2               | 480,0               | 936,0                  | 17      |
| 10085    | 56 G 1                     | 21,9               | 538,0               | 920,0                  | 17      |
| 10086    | 61 G 1                     | 22,5               | 586,0               | 1100,0                 | 17      |
| 10087    | 65 G 1                     | 23,5               | 628,0               | 1180,0                 | 17      |
| 10088    | 80 G 1                     | 26,0               | 768,0               | 1294,0                 | 17      |
| 10089    | 100 G 1                    | 29,2               | 960,0               | 1644,0                 | 17      |
| 10090    | 2 x 1,5                    | 6,4                | 29,0                | 70,0                   | 16      |
| 10091    | 3 G 1,5                    | 6,8                | 43,0                | 90,0                   | 16      |
| 10092    | 3 x 1,5                    | 6,8                | 43,0                | 90,0                   | 16      |
| 10093    | 4 G 1,5                    | 7,4                | 58,0                | 109,0                  | 16      |
| 10094    | 4 x 1,5                    | 7,4                | 58,0                | 109,0                  | 16      |
| 10095    | 5 G 1,5                    | 8,3                | 72,0                | 131,0                  | 16      |
| 10096    | 5 x 1,5                    | 8,3                | 72,0                | 131,0                  | 16      |
| 10097    | 6 G 1,5                    | 9,2                | 86,0                | 157,0                  | 16      |
| 10098    | 7 G 1,5                    | 9,2                | 101,0               | 184,0                  | 16      |
| 10099    | 7 x 1,5                    | 9,2                | 101,0               | 184,0                  | 16      |
| 10100    | 8 G 1,5                    | 9,9                | 115,0               | 216,0                  | 16      |
| 10101    | 9 G 1,5                    | 10,9               | 129,0               | 259,0                  | 16      |
| 10181    | 10 G 1,5                   | 10,9               | 144,0               | 275,0                  | 16      |
| 10102    | 11 G 1,5                   | 12,0               | 158,0               | 300,0                  | 16      |
| 10103    | 12 G 1,5                   | 12,0               | 173,0               | 309,0                  | 16      |
| 10104    | 12 x 1,5                   | 12,0               | 173,0               | 309,0                  | 16      |
| 10105    | 14 G 1,5                   | 13,0               | 202,0               | 345,0                  | 16      |

| Part no. | No. cores x cross-sec. mm² | Outer Ø approx. mm | Cop. weight kg / km | Weight approx. kg / km | AWG-No.   |
|----------|----------------------------|--------------------|---------------------|------------------------|-----------|
| 10106    | 16 G 1,5                   | 13,9               | 230,0               | 386,0                  | 16        |
| 10107    | 18 G 1,5                   | 14,6               | 259,0               | 440,0                  | 16        |
| 10185    | 19 G 1,5                   | 15,2               | 279,0               | 445,0                  | 16        |
| 10108    | 20 G 1,5                   | 15,5               | 288,0               | 490,0                  | 16        |
| 10109    | 21 G 1,5                   | 15,5               | 302,0               | 555,0                  | 16        |
| 10110    | 25 G 1,5                   | 17,4               | 360,0               | 620,0                  | 16        |
| 10535    | 27 G 1,5                   | 19,0               | 389,0               | 670,0                  | 16        |
| 10111    | 32 G 1,5                   | 19,5               | 461,0               | 790,0                  | 16        |
| 10112    | 34 G 1,5                   | 20,2               | 490,0               | 830,0                  | 16        |
| 10536    | 37 G 1,5                   | 20,2               | 533,0               | 892,0                  | 16        |
| 10113    | 41 G 1,5                   | 21,8               | 591,0               | 996,0                  | 16        |
| 10114    | 42 G 1,5                   | 21,8               | 605,0               | 1007,0                 | 16        |
| 10115    | 50 G 1,5                   | 24,2               | 720,0               | 1250,0                 | 16        |
| 10116    | 56 G 1,5                   | 24,9               | 806,0               | 1332,0                 | 16        |
| 10117    | 61 G 1,5                   | 25,8               | 878,0               | 1440,0                 | 16        |
| 10187    | 65 G 1,5                   | 26,7               | 936,0               | 1602,0                 | 16        |
| 10118    | 80 G 1,5                   | 29,8               | 1152,0              | 1871,0                 | 16        |
| 10119    | 100 G 1,5                  | 33,2               | 1440,0              | 2353,0                 | 16        |
| 10120    | 2 x 2,5                    | 7,8                | 48,0                | 112,0                  | 14        |
| 10121    | 3 G 2,5                    | 8,3                | 72,0                | 148,0                  | 14        |
| 10122    | 3 x 2,5                    | 8,3                | 72,0                | 148,0                  | 14        |
| 10123    | 4 G 2,5                    | 9,2                | 96,0                | 178,0                  | 14        |
| 10124    | 4 x 2,5                    | 9,2                | 96,0                | 178,0                  | 14        |
| 10125    | 5 G 2,5                    | 10,1               | 120,0               | 221,0                  | 14        |
| 10126    | 5 x 2,5                    | 10,1               | 120,0               | 221,0                  | 14        |
| 10127    | 7 G 2,5                    | 11,2               | 168,0               | 306,0                  | 14        |
| 10128    | 7 x 2,5                    | 11,2               | 168,0               | 306,0                  | 14        |
| 10129    | 8 G 2,5                    | 12,3               | 192,0               | 363,0                  | 14        |
| 10130    | 12 G 2,5                   | 14,8               | 288,0               | 498,0                  | 14        |
| 10131    | 14 G 2,5                   | 16,0               | 336,0               | 569,0                  | 14        |
| 10132    | 18 G 2,5                   | 18,2               | 432,0               | 764,0                  | 14        |
| 10133    | 21 G 2,5                   | 19,1               | 504,0               | 914,0                  | 14        |
| 10134    | 25 G 2,5                   | 21,6               | 600,0               | 1044,0                 | 14        |
| 10135    | 34 G 2,5                   | 25,0               | 816,0               | 1470,0                 | 14        |
| 10136    | 42 G 2,5                   | 27,2               | 1008,0              | 1790,0                 | 14        |
| 10137    | 50 G 2,5                   | 30,0               | 1200,0              | 2095,0                 | 14        |
| 10138    | 61 G 2,5                   | 32,0               | 1464,0              | 2750,0                 | 14        |
| 10139    | 100 G 2,5                  | 41,4               | 2400,0              | 4450,0                 | 14        |
| 10140    | 2 x 4                      | 9,3                | 77,0                | 195,0                  | 12        |
| 10141    | 3 G 4                      | 9,8                | 115,0               | 230,0                  | 12        |
| 10142    | 4 G 4                      | 11,0               | 154,0               | 295,0                  | 12        |
| 10143    | 5 G 4                      | 12,3               | 192,0               | 361,0                  | 12        |
| 10144    | 7 G 4                      | 13,6               | 269,0               | 458,0                  | 12        |
| 10145    | 8 G 4                      | 14,6               | 307,0               | 590,0                  | 12        |
| 10146    | 12 G 4                     | 17,8               | 461,0               | 790,0                  | 12        |
| 10147    | 3 G 6                      | 11,9               | 173,0               | 355,0                  | 10        |
| 10148    | 4 G 6                      | 13,0               | 230,0               | 424,0                  | 10        |
| 10149    | 5 G 6                      | 14,5               | 288,0               | 525,0                  | 10        |
| 10150    | 7 G 6                      | 16,2               | 403,0               | 625,0                  | 10        |
| 10151    | 3 G 10                     | 14,8               | 288,0               | 540,0                  | 8         |
| 10152    | 4 G 10                     | 16,4               | 384,0               | 701,0                  | 8         |
| 10153    | 5 G 10                     | 18,3               | 480,0               | 858,0                  | 8         |
| 10154    | 7 G 10                     | 20,2               | 672,0               | 1106,0                 | 8         |
| 10190    | 3 G 16                     | 18,2               | 461,0               | 827,0                  | 6         |
| 10155    | 4 G 16                     | 20,0               | 614,0               | 1035,0                 | 6         |
| 10156    | 5 G 16                     | 22,6               | 768,0               | 1259,0                 | 6         |
| 10157    | 7 G 16                     | 24,8               | 1075,0              | 1780,0                 | 6         |
| 10191    | 3 G 25                     | 22,2               | 720,0               | 1186,0                 | 4         |
| 10158    | 4 G 25                     | 24,9               | 960,0               | 1582,0                 | 4         |
| 10159    | 5 G 25                     | 27,7               | 1200,0              | 1999,0                 | 4         |
| 10160    | 7 G 25                     | 30,6               | 1680,0              | 2825,0                 | 4         |
| 10192    | 3 G 35                     | 25,6               | 1008,0              | 1585,0                 | 2         |
| 10161    | 4 G 35                     | 28,4               | 1344,0              | 2105,0                 | 2         |
| 10162    | 5 G 35                     | 31,7               | 1680,0              | 2633,0                 | 2         |
| 10193    | 3 G 50                     | 30,9               | 1440,0              | 2550,0                 | 1         |
| 10163    | 4 G 50                     | 34,2               | 1920,0              | 2940,0                 | 1         |
| 10188    | 5 G 50                     | 38,3               | 2400,0              | 2936,0                 | 1         |
| 10194    | 3 G 70                     | 36,5               | 2016,0              | 3180,0                 | 2/0       |
| 10164    | 4 G 70                     | 40,3               | 2688,0              | 4090,0                 | 2/0       |
| 10189    | 5 G 70                     | 45,3               | 3360,0              | 5443,0                 | 2/0       |
| 10195    | 3 G 95                     | 41,1               | 2736,0              | 4680,0                 | 3/0       |
| 10165    | 4 G 95                     | 45,8               | 3648,0              | 5540,0                 | 3/0       |
| 10333    | 5 G 95                     | 52,7               | 4560,0              | 6931,0                 | 3/0       |
| 10166    | 4 G 120                    | 51,4               | 4608,0              | 7000,0                 | 4/0       |
| 13139    | 4 G 150                    | 58,5               | 5760,0              | 8340,0                 | 300 kcmil |
| 13140    | 4 G 185                    | 61,1               | 7104,0              | 9904,0                 | 350 kcmil |

Dimensions and specifications may be changed without prior notice. (RA01)