



## Anwendung

als Energie-, Steuer-, Anschluss- und Verbindungsleitung in elektrischen Anlagen, für feste Verlegung und flexible Anwendungen bei freier Bewegung ohne Zugbeanspruchung und ohne zwangsweise Führung. Geeignet für Verlegung in trockenen, feuchten und nassen Räumen, jedoch nicht im Freien ohne UV-Schutz und nicht für Erdverlegung geeignet.

## Application

power, control and connecting cable in electrical facilities for fixed laying and flexible applications without tensile stress and without defined cable routing. Suitable for use in dry, humid and wet rooms. Outdoor use only with UV-protection, no laying underground.

## Besonderheiten

- 4kV Prüfspannung
- weitgehend beständig gegen Säuren, Laugen und bestimmte Öle.

## Special Features

- 4kV testing voltage
- largely resistant to acids, bases and specified types of oil

## Hinweise

- RoHS-konform
- konform zur 2014/35/EU-Richtlinie ("Niederspannungsrichtlinie") CE
- LABS-frei/silikonfrei (bei Produktion)
- Sonderausführungen, andere Abmessungen, Querschnitte, Ader- und Mantelfarben fertigen wir auf Anfrage.

## Remarks

- conform to RoHS
- conform to 2014/35/EU-Guideline ("Low-Voltage Directive") CE
- LABS-/silicone-free (during production)
- special versions, other dimensions, core and jacket colours according to your specifications on request.

## Aufbau & Technische Daten

|                              |                                                                   |
|------------------------------|-------------------------------------------------------------------|
| Leiter Werkstoff             | Cu-Litze blank                                                    |
| Leiterklasse                 | nach IEC 60228 cl. 5                                              |
| Aderisolationswerkstoff      | PVC                                                               |
| Aderkennung                  | nach DIN VDE 0293 schwarze Adern mit weissen Ziffern, G: mit GNGE |
| Verseilung                   | Adern in Lagen verseilt                                           |
| Außenmantelwerkstoff         | PVC                                                               |
| Mantelfarbe                  | grau, RAL 7001                                                    |
| Nennspannung                 | Uo/U: 300/500 V                                                   |
| Prüfspannung                 | 4 kV                                                              |
| Leiterwiderstand             | nach IEC 60228 cl. 5                                              |
| Isolationswiderstand         | min. 20 MΩ x km                                                   |
| Strombelastbarkeit           | gem. DIN VDE, siehe technischer Anhang                            |
| kleinster Biegeradius fest   | 4 x d                                                             |
| kleinster Biegeradius bewegt | 15 x d                                                            |
| Betriebstemp. fest min/max   | -40 °C / +80 °C                                                   |
| Betriebstemp. bew. min/max   | -15 °C / +70 °C                                                   |
| Temperatur am Leiter max.    | +70 °C im Betrieb; +150 °C im Kurzschlußfall                      |
| Brandverhalten               | selbstverlöschend und flammwidrig nach IEC 60332-1                |
| Standard                     | in Anlehnung an EN 50525-2-51                                     |

## Structure & Specifications

|                             |                                                                    |
|-----------------------------|--------------------------------------------------------------------|
| conductor material          | bare copper strand                                                 |
| conductor class             | acc. to IEC 60228 cl. 5                                            |
| core insulation             | PVC                                                                |
| core identification         | acc. to DIN VDE 0293 black cores with white numerals; G: with GNGE |
| stranding                   | stranded in layers                                                 |
| outer sheath                | PVC                                                                |
| sheath colour               | grey, RAL 7001                                                     |
| rated voltage               | Uo/U: 300/500 V                                                    |
| testing voltage             | 4 kV                                                               |
| conductor resistance        | acc. to IEC 60228 cl. 5                                            |
| insulation resistance       | min. 20 MΩ x km                                                    |
| current carrying capacity   | acc. to DIN VDE, see technical Guidelines                          |
| min. bending radius fixed   | 4 x d                                                              |
| min. bending radius moved   | 15 x d                                                             |
| operat. temp. fixed min/max | -40 °C / +80 °C                                                    |
| operat. temp. moved min/max | -15 °C / +70 °C                                                    |
| temp. at conductor          | +70 °C in operation; +150 °C in case of short-circuit              |
| burning behavior            | self-extinguishing & flame-retardant acc.to IEC 60332-1            |
| standard                    | similar to EN 50525-2-51                                           |



| Art.-Nr.<br>Item no. | Abmessung<br>n x mm²<br>dimension<br>n x mm² | Außen-Ø<br>mm<br>outer-Ø<br>mm | Cu-Zahl<br>kg/km<br>Cu index<br>kg/km | Gewicht<br>kg/km<br>weight<br>kg/km |
|----------------------|----------------------------------------------|--------------------------------|---------------------------------------|-------------------------------------|
| 1001034              | 2 X 0,5                                      | 4,7                            | 10,0                                  | 33,0                                |
| 1000528              | 3 G 0,5                                      | 5,1                            | 15,0                                  | 41,0                                |
| 1001053              | 3 X 0,5                                      | 5,1                            | 15,0                                  | 41,0                                |
| 1000554              | 4 G 0,5                                      | 5,5                            | 19,0                                  | 50,0                                |
| 1001065              | 4 X 0,5                                      | 5,5                            | 19,0                                  | 50,0                                |
| 1000580              | 5 G 0,5                                      | 6,2                            | 24,0                                  | 63,0                                |
| 1001072              | 5 X 0,5                                      | 6,2                            | 24,0                                  | 63,0                                |
| 1000609              | 6 G 0,5                                      | 6,7                            | 28,8                                  | 70,0                                |
| 1000613              | 7 G 0,5                                      | 6,8                            | 34,0                                  | 78,0                                |
| 1001078              | 7 X 0,5                                      | 6,8                            | 34,0                                  | 78,0                                |
| 1000632              | 8 G 0,5                                      | 7,9                            | 38,0                                  | 98,0                                |
| 1000449              | 10 G 0,5                                     | 8,6                            | 48,0                                  | 120,0                               |
| 1004377              | 10 X 1,5                                     | 8,6                            | 48,0                                  | 120,0                               |
| 1000455              | 12 G 0,5                                     | 9,0                            | 58,0                                  | 130,0                               |
| 1001024              | 12 X 0,5                                     | 9,0                            | 58,0                                  | 130,0                               |
| 1000465              | 14 G 0,5                                     | 9,7                            | 67,0                                  | 148,0                               |
| 1000479              | 18 G 0,5                                     | 11,0                           | 86,0                                  | 194,0                               |
| 1000496              | 21 G 0,5                                     | 12,2                           | 101,0                                 | 230,0                               |
| 1000505              | 25 G 0,5                                     | 13,0                           | 120,0                                 | 254,0                               |
| 1000519              | 34 G 0,5                                     | 15,0                           | 163,0                                 | 342,0                               |
| 1000546              | 40 G 0,5                                     | 16,4                           | 192,0                                 | 425,0                               |
| 1000575              | 50 G 0,5                                     | 17,9                           | 240,0                                 | 520,0                               |
| 1000599              | 61 G 0,5                                     | 19,7                           | 293,0                                 | 608,0                               |
| 1000604              | 65 G 0,5                                     | 20,9                           | 312,0                                 | 673,0                               |
| 1001033              | 2 X 0,75                                     | 5,2                            | 15,0                                  | 43,0                                |
| 1000529              | 3 G 0,75                                     | 5,6                            | 22,0                                  | 52,0                                |
| 1001054              | 3 X 0,75                                     | 5,6                            | 22,0                                  | 52,0                                |
| 1000555              | 4 G 0,75                                     | 6,3                            | 29,0                                  | 64,0                                |
| 1001064              | 4 X 0,75                                     | 6,3                            | 29,0                                  | 64,0                                |
| 1000581              | 5 G 0,75                                     | 6,7                            | 36,0                                  | 77,0                                |
| 1001073              | 5 X 0,75                                     | 6,7                            | 36,0                                  | 77,0                                |
| 1000610              | 6 G 0,75                                     | 7,4                            | 43,0                                  | 95,0                                |
| 1000614              | 7 G 0,75                                     | 7,4                            | 50,0                                  | 97,0                                |
| 1001077              | 7 X 0,75                                     | 7,4                            | 50,0                                  | 97,0                                |
| 1000633              | 8 G 0,75                                     | 8,9                            | 58,0                                  | 130,0                               |
| 1001082              | 8 X 0,75                                     | 8,9                            | 58,0                                  | 130,0                               |
| 1000640              | 9 G 0,75                                     | 9,4                            | 65,0                                  | 153,0                               |
| 1000450              | 10 G 0,75                                    | 9,6                            | 72,0                                  | 153,0                               |
| 1000456              | 12 G 0,75                                    | 10,0                           | 86,0                                  | 167,0                               |
| 1001025              | 12 X 0,75                                    | 10,0                           | 86,0                                  | 167,0                               |
| 1000471              | 15 G 0,75                                    | 11,1                           | 108,0                                 | 206,0                               |
| 1000475              | 16 G 0,75                                    | 11,5                           | 115,0                                 | 228,0                               |
| 1000480              | 18 G 0,75                                    | 11,9                           | 130,0                                 | 242,0                               |
| 1000497              | 21 G 0,75                                    | 12,9                           | 151,0                                 | 291,0                               |
| 1000506              | 25 G 0,75                                    | 14,1                           | 180,0                                 | 330,0                               |
| 1000520              | 34 G 0,75                                    | 16,1                           | 245,0                                 | 441,0                               |
| 1000548              | 41 G 0,75                                    | 17,9                           | 296,0                                 | 533,0                               |
| 1000576              | 50 G 0,75                                    | 19,4                           | 360,0                                 | 633,0                               |
| 1000605              | 65 G 0,75                                    | 21,0                           | 468,0                                 | 803,0                               |

| Art.-Nr.<br>Item no. | Abmessung<br>n x mm²<br>dimension<br>n x mm² | Außen-Ø<br>mm<br>outer-Ø<br>mm | Cu-Zahl<br>kg/km<br>Cu index<br>kg/km | Gewicht<br>kg/km<br>weight<br>kg/km |
|----------------------|----------------------------------------------|--------------------------------|---------------------------------------|-------------------------------------|
| 1001035              | 2 X 1                                        | 5,5                            | 19,0                                  | 50,0                                |
| 1000532              | 3 G 1                                        | 6,1                            | 29,0                                  | 63,0                                |
| 1001057              | 3 X 1                                        | 6,1                            | 29,0                                  | 63,0                                |
| 1000557              | 4 G 1                                        | 6,6                            | 38,0                                  | 77,0                                |
| 1001067              | 4 X 1                                        | 6,6                            | 38,0                                  | 77,0                                |
| 1000582              | 5 G 1                                        | 7,2                            | 48,0                                  | 92,0                                |
| 1001074              | 5 X 1                                        | 7,2                            | 48,0                                  | 92,0                                |
| 1000611              | 6 G 1                                        | 8,1                            | 58,0                                  | 114,0                               |
| 1002707              | 6 X 1                                        | 8,1                            | 58,0                                  | 114,0                               |
| 1000617              | 7 G 1                                        | 8,1                            | 67,0                                  | 121,0                               |
| 1001079              | 7 X 1                                        | 8,1                            | 67,0                                  | 121,0                               |
| 1000635              | 8 G 1                                        | 9,4                            | 77,0                                  | 157,0                               |
| 1000642              | 9 G 1                                        | 10,0                           | 86,0                                  | 182,0                               |
| 1000452              | 10 G 1                                       | 10,2                           | 96,0                                  | 185,0                               |
| 1000458              | 12 G 1                                       | 10,4                           | 115,0                                 | 200,0                               |
| 1001026              | 12 X 1                                       | 10,4                           | 115,0                                 | 200,0                               |
| 1000467              | 14 G 1                                       | 11,4                           | 134,0                                 | 232,0                               |
| 1000476              | 16 G 1                                       | 12,0                           | 154,0                                 | 262,0                               |
| 1000483              | 18 G 1                                       | 12,9                           | 173,0                                 | 298,0                               |
| 1000493              | 20 G 1                                       | 13,7                           | 192,0                                 | 334,0                               |
| 1000498              | 21 G 1                                       | 14,1                           | 202,0                                 | 355,0                               |
| 1000508              | 25 G 1                                       | 15,0                           | 240,0                                 | 403,0                               |
| 1000521              | 34 G 1                                       | 17,4                           | 326,0                                 | 542,0                               |
| 1000524              | 36 G 1                                       | 17,6                           | 346,0                                 | 565,0                               |
| 1000549              | 41 G 1                                       | 19,0                           | 394,0                                 | 651,0                               |
| 1000551              | 42 G 1                                       | 19,1                           | 403,0                                 | 660,0                               |
| 1000577              | 50 G 1                                       | 21,0                           | 480,0                                 | 778,0                               |
| 1000601              | 61 G 1                                       | 22,5                           | 586,0                                 | 934,0                               |
| 1000606              | 65 G 1                                       | 23,2                           | 624,0                                 | 987,0                               |
| 1001037              | 2 X 1,5                                      | 6,3                            | 29,0                                  | 67,0                                |
| 1000534              | 3 G 1,5                                      | 6,8                            | 43,0                                  | 81,0                                |
| 1001056              | 3 X 1,5                                      | 6,8                            | 43,0                                  | 81,0                                |
| 1000558              | 4 G 1,5                                      | 7,3                            | 58,0                                  | 101,0                               |
| 1001069              | 4 X 1,5                                      | 7,3                            | 58,0                                  | 101,0                               |
| 1000584              | 5 G 1,5                                      | 8,2                            | 72,0                                  | 122,0                               |
| 1001075              | 5 X 1,5                                      | 8,2                            | 72,0                                  | 122,0                               |
| 1000612              | 6 G 1,5                                      | 9,0                            | 86,0                                  | 149,0                               |
| 1000618              | 7 G 1,5                                      | 9,1                            | 101,0                                 | 159,0                               |
| 1001080              | 7 X 1,5                                      | 9,1                            | 101,0                                 | 159,0                               |
| 1000636              | 8 G 1,5                                      | 10,5                           | 115,0                                 | 206,0                               |
| 1000643              | 9 G 1,5                                      | 11,4                           | 130,0                                 | 242,0                               |
| 1000453              | 10 G 1,5                                     | 11,6                           | 144,0                                 | 245,0                               |
| 1000460              | 12 G 1,5                                     | 12,1                           | 173,0                                 | 273,0                               |
| 1001027              | 12 X 1,5                                     | 12,1                           | 173,0                                 | 273,0                               |
| 1000468              | 14 G 1,5                                     | 12,8                           | 202,0                                 | 309,0                               |
| 1000477              | 16 G 1,5                                     | 13,7                           | 230,0                                 | 355,0                               |
| 1000485              | 18 G 1,5                                     | 14,5                           | 259,0                                 | 397,0                               |
| 1000499              | 21 G 1,5                                     | 16,1                           | 302,0                                 | 484,0                               |
| 1000509              | 25 G 1,5                                     | 17,0                           | 360,0                                 | 541,0                               |
| 1000518              | 32 G 1,5                                     | 19,3                           | 461,0                                 | 698,0                               |
| 1000522              | 34 G 1,5                                     | 19,6                           | 490,0                                 | 722,0                               |
| 1000552              | 42 G 1,5                                     | 21,5                           | 605,0                                 | 885,0                               |
| 1000578              | 50 G 1,5                                     | 23,6                           | 720,0                                 | 1.051,0                             |
| 1000602              | 61 G 1,5                                     | 25,5                           | 878,0                                 | 1.259,0                             |
| 1001047              | 2 X 2,5                                      | 7,6                            | 48,0                                  | 101,0                               |
| 1000542              | 3 G 2,5                                      | 8,3                            | 72,0                                  | 128,0                               |

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|----------------------|----------------------------------------------------------------------|--------------------------------|---------------------------------------|-------------------------------------|
| 1000564              | 4 G 2,5                                                              | 9,1                            | 96,0                                  | 154,0                               |
| 1000593              | 5 G 2,5                                                              | 10,2                           | 120,0                                 | 200,0                               |
| 1000626              | 7 G 2,5                                                              | 11,3                           | 168,0                                 | 250,0                               |
| 1000639              | 8 G 2,5                                                              | 13,2                           | 192,0                                 | 331,0                               |
| 1001564              | 10 G 2,5                                                             | 14,6                           | 240,0                                 | 375,0                               |
| 1000463              | 12 G 2,5                                                             | 14,9                           | 288,0                                 | 438,0                               |
| 1000470              | 14 G 2,5                                                             | 16,0                           | 336,0                                 | 503,0                               |
| 1000487              | 18 G 2,5                                                             | 18,0                           | 432,0                                 | 629,0                               |
| 1000511              | 25 G 2,5                                                             | 21,2                           | 600,0                                 | 852,0                               |
| 1000523              | 34 G 2,5                                                             | 24,6                           | 816,0                                 | 1.150,0                             |
| 1002297              | 2 X 4                                                                | 9,2                            | 77,0                                  | 152,0                               |
| 1000544              | 3 G 4                                                                | 10,1                           | 115,0                                 | 193,0                               |
| 1000569              | 4 G 4                                                                | 11,0                           | 154,0                                 | 242,0                               |
| 1000597              | 5 G 4                                                                | 12,3                           | 192,0                                 | 302,0                               |
| 1000629              | 7 G 4                                                                | 13,7                           | 269,0                                 | 390,0                               |
| 1000545              | 3 G 6                                                                | 11,7                           | 173,0                                 | 276,0                               |
| 1000571              | 4 G 6                                                                | 12,8                           | 230,0                                 | 342,0                               |
| 1000598              | 5 G 6                                                                | 14,4                           | 288,0                                 | 427,0                               |
| 1000630              | 7 G 6                                                                | 16,0                           | 403,0                                 | 550,0                               |
| 1000539              | 3 G 10                                                               | 14,7                           | 288,0                                 | 451,0                               |
| 1000561              | 4 G 10                                                               | 16,3                           | 384,0                                 | 573,0                               |
| 1000590              | 5 G 10                                                               | 18,2                           | 480,0                                 | 712,0                               |
| 1000622              | 7 G 10                                                               | 20,1                           | 672,0                                 | 931,0                               |
| 1000540              | 3 G 16                                                               | 17,6                           | 461,0                                 | 707,0                               |
| 1000563              | 4 G 16                                                               | 20,6                           | 614,0                                 | 952,0                               |
| 1000591              | 5 G 16                                                               | 22,4                           | 768,0                                 | 1.153,0                             |
| 1000623              | 7 G 16                                                               | 25,6                           | 1.075,0                               | 1.497,0                             |
| 1000566              | 4 G 25                                                               | 25,7                           | 960,0                                 | 1.454,0                             |
| 1000595              | 5 G 25                                                               | 28,7                           | 1.200,0                               | 1.778,0                             |
| 1000568              | 4 G 35                                                               | 27,2                           | 1.344,0                               | 1.972,0                             |
| 1000596              | 5 G 35                                                               | 33,1                           | 1.680,0                               | 2.542,0                             |
| 1001305              | 4 G 50                                                               | 33,8                           | 1.920,0                               | 2.746,0                             |
| 1000574              | 4 G 70                                                               | 39,7                           | 2.688,0                               | 4.092,0                             |
| 1001306              | 4 G 95                                                               | 45,6                           | 3.648,0                               | 5.400,0                             |