

SABIX® R 605 FRNC SABIX® Rail Data



BRÖCKSKES · D-VIERSEN · SABIX® R 605 FRNC 32 x

Marking for SABIX® R 605 FRNC 66053250:
SAB BRÖCKSKES · D-VIERSEN · SABIX® R 605 FRNC 32 x 0,5 mm² CE

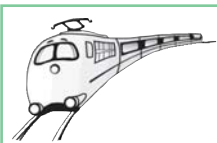
With our specially developed for rail vehicles data cable with colored conductors SABIX® R 605 FRNC we offer our customers maximum planning certainty and comfort for flexible installation in railway vehicles. In addition to high flexibility, these cables to the highest safety standards for the railway industry. For these cables the stringent requirements have been confirmed in accordance with DIN 5510-2.

Construction:

| | |
|-------------------------|---|
| Conductor: | bare copper strands with reference to IEC 60228, EN 6028, VDE 0295, class 5 |
| Insulation: | special SABIX® |
| Color code: | with reference to DIN 47100 |
| Stranding: | in layers |
| Wrapping: | PETP foil |
| Jacket material: | special SABIX® |
| Sheath color: | gray |

Outstanding features:

- halogen-free
- no flame propagation
- flame retardant and self-extinguishing
- fulfills fire protection level 1 - 4 acc. to DIN 5510-1*
- tested acc. to DIN 5510-2*
- fulfills HL1 - HL3 acc. to CEN/TS 45545-2*



**Especially
for use in
rail vehicles**

Technical data:

| | |
|--|---|
| Peak operating voltage: | < 24 AWG = max. 350 V ≥ 24 AWG = max. 500 V |
| Testing voltage: | < 24 AWG = 800 V ≥ 24 AWG = 1200 V |
| Min. bending radius <i>fixed laying:</i> | 5 x O. D. |
| <i>flexible application:</i> | 10 x O. D. |
| Temperature range <i>fixed laying:</i> | -40/+90 °C |
| <i>flexible application:</i> | -30/+90 °C |
| Zero halogen*: | acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0,5% acc. to EN 50267-2-1. pH-value is > 4,3 acc. to EN 50267-2-2. Conductivity is < 10,0 µS/mm acc. to EN 50267-2-2. Fluoric content < 0,1% acc. to EN 60684-2. |
| Burning characteristics*: | For cable diameter ≥ 12 mm: no flame propagation acc. to EN 50266-2-4. For cable diameter > 6 mm < 12 mm: no flame propagation acc. to EN 50266-2-5 For cable diameter ≤ 6 mm: no flame propagation acc. to EN 50266-2-5 with configuration acc. to EN 50306-1 resp. EN 50264-1. Flame retardant and self-extinguishing acc. to EN 60332-1-2. |
| Toxicity*: | acc. to DIN EN 50305 + NF X 70-100-1 + NF X 70-100-2 |
| Smoke density*: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union see page N/28 |

* Tested at the reference types SABIX® R 615 FRNC and SABIX® R 645 FRNC TP. Burning test on ladder internally performed.

| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|--------------------------------------|-------------------|----------------------|--------------------|------------------------|
| ▶ 26 AWG (≈ 18/38) • 0.14 mm² | | | | |
| 66050214 | 2 | 0.122 | 3.1 | 9 |
| 63050314 | 3 | 0.130 | 3.3 | 10 |
| 63050414 | 4 | 0.138 | 3.5 | 12 |
| 63050514 | 5 | 0.150 | 3.8 | 14 |
| 63050714 | 7 | 0.161 | 4.1 | 17 |
| 63050814 | 8 | 0.197 | 5.0 | 22 |
| 63051214 | 12 | 0.209 | 5.3 | 26 |
| 63051414 | 14 | 0.217 | 5.5 | 28 |
| 63051614 | 16 | 0.236 | 6.0 | 34 |
| 63051814 | 18 | 0.248 | 6.3 | 38 |
| 63052114 | 21 | 0.272 | 6.9 | 44 |
| 63052414 | 24 | 0.287 | 7.3 | 47 |
| 63052714 | 27 | 0.303 | 7.7 | 54 |
| 63053014 | 30 | 0.311 | 7.9 | 58 |
| 63053214 | 32 | 0.323 | 8.2 | 62 |
| 63053614 | 36 | 0.335 | 8.5 | 68 |
| 63054014 | 40 | 0.358 | 9.1 | 75 |
| 63054414 | 44 | 0.374 | 9.5 | 80 |
| 63055014 | 50 | 0.406 | 10.3 | 95 |
| 63056114 | 61 | 0.429 | 10.9 | 111 |

| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|--------------------------------------|-------------------|----------------------|--------------------|------------------------|
| ▶ 24 AWG (≈ 14/34) • 0.25 mm² | | | | |
| 66050225 | 2 | 0.134 | 3.4 | 11 |
| 63050325 | 3 | 0.142 | 3.6 | 13 |
| 63050425 | 4 | 0.154 | 3.9 | 16 |
| 63050525 | 5 | 0.165 | 4.2 | 19 |
| 63050725 | 7 | 0.181 | 4.6 | 24 |
| 63050825 | 8 | 0.205 | 5.2 | 29 |
| 63051225 | 12 | 0.240 | 6.1 | 38 |
| 63051425 | 14 | 0.252 | 6.4 | 43 |
| 63051625 | 16 | 0.264 | 6.7 | 48 |
| 63051825 | 18 | 0.280 | 7.1 | 54 |
| 63052125 | 21 | 0.311 | 7.9 | 65 |
| 63052425 | 24 | 0.331 | 8.4 | 70 |
| 63052725 | 27 | 0.339 | 8.6 | 77 |
| 63053025 | 30 | 0.350 | 8.9 | 84 |
| 63053225 | 32 | 0.362 | 9.2 | 89 |
| 63053625 | 36 | 0.394 | 10.0 | 105 |
| 63054025 | 40 | 0.417 | 10.6 | 116 |
| 63054425 | 44 | 0.437 | 11.1 | 124 |
| 63055025 | 50 | 0.457 | 11.6 | 137 |
| 63056125 | 61 | 0.484 | 12.3 | 162 |

| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|-------------------------------------|-------------------|----------------------|--------------------|------------------------|
| ▶ 22 AWG (≈ 7/30) • 0.34 mm² | | | | |
| 66050234 | 2 | 0.157 | 4.0 | 16 |
| 63050334 | 3 | 0.165 | 4.2 | 18 |
| 63050434 | 4 | 0.181 | 4.6 | 22 |
| 63050534 | 5 | 0.197 | 5.0 | 27 |
| 63050734 | 7 | 0.217 | 5.5 | 33 |
| 63050834 | 8 | 0.256 | 6.5 | 42 |
| 63051234 | 12 | 0.287 | 7.3 | 54 |
| 63051434 | 14 | 0.311 | 7.9 | 63 |
| 63051634 | 16 | 0.327 | 8.3 | 71 |
| 63051834 | 18 | 0.346 | 8.8 | 79 |
| 63052134 | 21 | 0.394 | 10.0 | 98 |
| 63052434 | 24 | 0.417 | 10.6 | 106 |
| 63052734 | 27 | 0.425 | 10.8 | 116 |
| 63053034 | 30 | 0.441 | 11.2 | 126 |
| 63053234 | 32 | 0.457 | 11.6 | 134 |
| 63053634 | 36 | 0.476 | 12.1 | 148 |
| 63054034 | 40 | 0.508 | 12.9 | 164 |
| 63054434 | 44 | 0.531 | 13.5 | 175 |
| 63055034 | 50 | 0.571 | 14.5 | 204 |
| 63056134 | 61 | 0.606 | 15.4 | 241 |

Continued on next page

tested
acc. to DIN 5510-2*
edition May 2009

HALOGEN-FREE CABLES

CEN/TS 45545-2*



SABIX® R 605 FRNC SABIX® Rail Data



ES · D-VIERSEN · SABIX® R 605 FRNC 32 x 0,5 mm² CE



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SAB BRÖCKSKES · D-VIERSEN · SABIX® R 605 FRNC 32 x 0,5 mm² CE

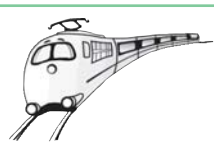
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| Conductor: | bare copper strands with reference to IEC 60228, EN 6028, VDE 0295, class 5 |
| Insulation: | special SABIX® |
| Color code: | with reference to DIN 47100 |
| Stranding: | in layers |
| Wrapping: | PETP foil |
| Jacket material: | special SABIX® |
| Sheath color: | gray |

Outstanding features:

- ▶ halogen-free
- ▶ no flame propagation
- ▶ flame retardant and self-extinguishing
- ▶ fulfills fire protection level 1 - 4 acc. to DIN 5510-1*
- ▶ tested acc. to DIN 5510-2*
- ▶ fulfills HL1 - HL3 acc. to CEN/TS 45545-2*



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| <i>flexible application:</i> | 10 x O. D. |
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| <i>flexible application:</i> | -30/+90 °C |
| Zero halogen*: | acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0,5% acc. to EN 50267-2-1. pH-value is > 4,3 acc. to EN 50267-2-2. Conductivity is < 10,0 µS/mm acc. to EN 50267-2-2. Fluoric content < 0,1% acc. to EN 60684-2. |
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| Toxicity*: | acc. to DIN EN 50305 + NF X 70-100-1 + NF X 70-100-2 |
| Smoke density*: | acc. to IEC 61034 + EN 61034 |
| Flexibility: | good |
| Absence of harmful substances: | acc. to RoHS directive of the European Union see page N/28 |

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| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|---|-------------------|----------------------|--------------------|------------------------|
| ▶ 20 AWG (≈ 16/32) • 0.50 mm² | | | | |
| 66050250 | 2 | 0.169 | 4.3 | 19 |
| 66050350 | 3 | 0.177 | 4.5 | 22 |
| 66050450 | 4 | 0.193 | 4.9 | 27 |
| 66050550 | 5 | 0.213 | 5.4 | 33 |
| 66050750 | 7 | 0.240 | 6.1 | 42 |
| 66050850 | 8 | 0.280 | 7.1 | 53 |
| 66051250 | 12 | 0.319 | 8.1 | 69 |
| 66051450 | 14 | 0.335 | 8.5 | 77 |
| 66051650 | 16 | 0.354 | 9.0 | 88 |
| 66051850 | 18 | 0.374 | 9.5 | 97 |
| 66052150 | 21 | 0.429 | 10.9 | 121 |
| 66052450 | 24 | 0.453 | 11.5 | 131 |
| 66052750 | 27 | 0.461 | 11.7 | 143 |
| 66053050 | 30 | 0.476 | 12.1 | 156 |
| 66053250 | 32 | 0.496 | 12.6 | 167 |
| 66053650 | 36 | 0.516 | 13.1 | 184 |
| 66054450 | 44 | 0.594 | 15.1 | 229 |
| 66055050 | 50 | 0.618 | 15.7 | 276 |
| 66056150 | 61 | 0.657 | 16.7 | 301 |

| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|---|-------------------|----------------------|--------------------|------------------------|
| ▶ 19 AWG (≈ 23/32) • 0.75 mm² | | | | |
| 66050275 | 2 | 0.193 | 4.9 | 26 |
| 66050375 | 3 | 0.205 | 5.2 | 30 |
| 66050475 | 4 | 0.232 | 5.9 | 39 |
| 66050575 | 5 | 0.252 | 6.4 | 47 |
| 66050775 | 7 | 0.276 | 7.0 | 58 |
| 66050875 | 8 | 0.327 | 8.3 | 75 |
| 66051275 | 12 | 0.370 | 9.4 | 95 |
| 66051475 | 14 | 0.406 | 10.3 | 114 |
| 66051675 | 16 | 0.425 | 10.8 | 129 |
| 66051875 | 18 | 0.449 | 11.4 | 143 |
| 66052175 | 21 | 0.492 | 12.5 | 167 |
| 66052475 | 24 | 0.524 | 13.3 | 181 |
| 66052775 | 27 | 0.535 | 13.6 | 200 |
| 66053075 | 30 | 0.571 | 14.5 | 228 |
| 66053275 | 32 | 0.591 | 15.0 | 242 |
| 66053675 | 36 | 0.614 | 15.6 | 268 |
| 66054075 | 40 | 0.657 | 16.7 | 298 |
| 66054475 | 44 | 0.689 | 17.5 | 319 |
| 66055075 | 50 | 0.720 | 18.3 | 356 |
| 66056175 | 61 | 0.780 | 19.8 | 435 |

| item no. | no. of conductors | nominal outer-ø inch | nominal outer-ø mm | cable weight ≈ lbs/mft |
|--|-------------------|----------------------|--------------------|------------------------|
| ▶ 18 AWG (≈ 30/32) • 1.00 mm² | | | | |
| 66050280 | 2 | 0.201 | 5.1 | 29 |
| 66050380 | 3 | 0.213 | 5.4 | 36 |
| 66050480 | 4 | 0.240 | 6.1 | 46 |
| 66050580 | 5 | 0.264 | 6.7 | 55 |
| 66050680 | 6 | 0.287 | 7.3 | 65 |
| 66050780 | 7 | 0.287 | 7.3 | 70 |
| ▶ 16 AWG (≈ 27-29/30) • 1.50 mm² | | | | |
| 66050285 | 2 | 0.220 | 5.6 | 37 |
| 66050385 | 3 | 0.240 | 6.1 | 48 |
| 66050485 | 4 | 0.264 | 6.7 | 58 |
| 66050585 | 5 | 0.303 | 7.7 | 76 |
| 66050685 | 6 | 0.331 | 8.4 | 90 |
| 66050785 | 7 | 0.331 | 8.4 | 97 |

Other dimensions and colors are possible on request.

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46

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Web site: www.sabcable.com