

Halogen-free Cables

SABIX® R 645 FRNC TP

SABIX® Rail - Data cable, paired with overall tinned copper shield

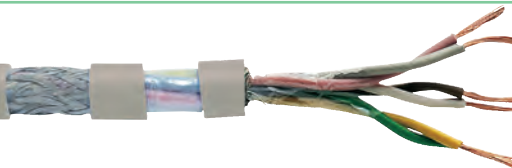
EN 45545-2

NFPA 130

UN/ECE R118

SAB Rail

R 645 FRNC TP 3 x 2 x 0.25 mm² CE



Marking for SABIX® R 645 FRNC TP 66450325:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 645 FRNC TP 3 x 2 x 0.25 mm² CE

Construction:

| | |
|-------------------------|--|
| Conductor: | bare copper strands with reference to IEC 60228, VDE 0295, class 5 |
| Insulation: | special SABIX® |
| Color code: | DIN 47100, see page O/26 |
| Stranding: | pairwise, pairs in layers |
| Wrapping: | foil |
| Shielding: | tinned copper braiding |
| Jacket material: | special SABIX® |
| Jacket color: | grayish tan (RAL 7032) |

Technical data:

| | |
|---------------------------------------|--|
| Nominal voltage: | < 24 AWG = max. 350 V ≥ 24 AWG = max. 500 V |
| Testing voltage: | conductor/conductor: 1500 V conductor/shielding: 1200 V |
| Min. bending radius: | 5 x O.D. |
| <i>fixed installation:</i> | 10 x O.D. |
| <i>free movement:</i> | |
| Temperature range: | |
| <i>static:</i> | -40/+90°C |
| <i>flexible:</i> | -30/+90°C |
| Halogen-free: | acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0.5% acc. to IEC 60754-1. pH-value is > 4.3 acc. to IEC 60754-2. Conductivity is < 10.0 µS/mm acc. to IEC 60754-2. Fluoric content < 0.1% acc. to IEC 60684-2 |
| Burning characteristics: | No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2. Flame retardant acc. to UL 1685 section 12, FT4/IEEE 1202. * Burning tests acc. to ASTM E 162-09. Flame retardant acc. to ISO 6722 (UN/ECE R118) |
| Toxicity: | acc. to EN 50305+ VDE 0260-305 |
| Smoke density: | acc. to IEC 61034 + VDE 0482-1034 + ASTM E 662-09 |
| Flexibility: | good |
| Approvals: | CE, EAC, RoHS |
| Absence of harmful substances: | acc. to RoHS directive of the European Union see page O/30 |

Outstanding features:

- low smoke halogen-free (LSHF)
- no flame propagation
- good EMC characteristics*
- flame retardant and self-extinguishing
- fulfills fire protection requirements R15 (EL1A)
acc. to EN 45545-2 for hazard levels HL1-3
- fulfills fire protection requirements
acc. to NFPA 130 section 8.6.7.1.1
and section 12.2.1 (1) *
- flame retardant acc. to UN/ECE R118
- tested acc. to American ASTM standard
- good transmission rates and crosstalk attenuation

*copper braiding should be connected circularly to optimize the EMC characteristics

| item no. | no. of pairs | nominal outer-ø inch ±10% | mm ±10% | cable weight ≈lbs/mft |
|---|--------------|---------------------------------|------------|--------------------------|
| ▶ 26 AWG (≈ 18/38) • 0.14 mm² | | | | |
| 66450214 | 2 | 0.205 | 5.2 | 26 |
| 66450314 | 3 | 0.224 | 5.7 | 30 |
| 66450414 | 4 | 0.256 | 6.5 | 36 |
| 66450514 | 5 | 0.276 | 7.0 | 43 |
| 66450614 | 6 | 0.283 | 7.2 | 48 |
| 66450814 | 8 | 0.307 | 7.8 | 56 |
| 66451014 | 10 | 0.350 | 8.9 | 71 |
| 66451214 | 12 | 0.382 | 9.7 | 81 |
| 66451614 | 16 | 0.413 | 10.5 | 99 |
| 66451814 | 18 | 0.437 | 11.1 | 117 |
| 66452414 | 24 | 0.504 | 12.8 | 150 |
| ▶ 24 AWG (≈ 14/34) • 0.25 mm² | | | | |
| 66450225 | 2 | 0.224 | 5.7 | 31 |
| 66450325 | 3 | 0.252 | 6.4 | 41 |
| 66450425 | 4 | 0.283 | 7.2 | 48 |
| 66450525 | 5 | 0.303 | 7.7 | 56 |
| 66450625 | 6 | 0.311 | 7.9 | 62 |
| 66450825 | 8 | 0.354 | 9.0 | 80 |
| 66451025 | 10 | 0.386 | 9.8 | 93 |
| 66451225 | 12 | 0.429 | 10.9 | 116 |
| 66451625 | 16 | 0.469 | 11.9 | 143 |
| 66451825 | 18 | 0.500 | 12.7 | 165 |
| 66452425 | 24 | 0.559 | 14.2 | 199 |

| item no. | no. of pairs | nominal outer-ø inch ±10% | mm ±10% | cable weight ≈lbs/mft |
|---|--------------|---------------------------------|------------|--------------------------|
| ▶ 22 AWG (≈ 7/30) • 0.34 mm² | | | | |
| 66450234 | 2 | 0.268 | 6.8 | 42 |
| 66450334 | 3 | 0.291 | 7.4 | 53 |
| 66450434 | 4 | 0.346 | 8.8 | 69 |
| 66450534 | 5 | 0.374 | 9.5 | 81 |
| 66450634 | 6 | 0.382 | 9.7 | 84 |
| 66450834 | 8 | 0.417 | 10.6 | 107 |
| 66451234 | 12 | 0.528 | 13.4 | 167 |
| 66451634 | 16 | 0.575 | 14.6 | 205 |
| 66451834 | 18 | 0.594 | 15.1 | 224 |
| 66452434 | 24 | 0.693 | 17.6 | 302 |
| ▶ 20 AWG (≈ 16/32) • 0.50 mm² | | | | |
| 66450250 | 2 | 0.283 | 7.2 | 48 |
| 66450350 | 3 | 0.311 | 7.9 | 62 |
| 66450450 | 4 | 0.370 | 9.4 | 80 |
| 66450550 | 5 | 0.402 | 10.2 | 95 |
| 66450650 | 6 | 0.409 | 10.4 | 104 |
| 66450850 | 8 | 0.449 | 11.4 | 120 |
| 66451050 | 10 | 0.520 | 13.2 | 169 |
| 66451250 | 12 | 0.567 | 14.4 | 198 |
| 66451650 | 16 | 0.642 | 16.3 | 255 |
| 66451850 | 18 | 0.665 | 16.9 | 293 |
| 66452450 | 24 | 0.748 | 19.0 | 341 |

| item no. | no. of pairs | nominal outer-ø inch ±10% | mm ±10% | cable weight ≈lbs/mft |
|---|--------------|---------------------------------|------------|--------------------------|
| ▶ 19 AWG (≈ 23/32) • 0.75 mm² | | | | |
| 66450275 | 2 | 0.335 | 8.5 | 69 |
| 66450375 | 3 | 0.370 | 9.4 | 86 |
| 66450475 | 4 | 0.429 | 10.9 | 112 |
| 66450575 | 5 | 0.461 | 11.7 | 135 |
| 66450675 | 6 | 0.492 | 12.5 | 161 |
| 66450875 | 8 | 0.539 | 13.7 | 187 |
| 66451275 | 12 | 0.673 | 17.1 | 282 |
| 66451675 | 16 | 0.732 | 18.6 | 351 |
| 66451875 | 18 | 0.760 | 19.3 | 390 |
| 66452475 | 24 | 0.858 | 21.8 | 480 |

Other dimensions and colors are available on request

* NFPA 130 / FT4 only up to outer-ø < 13 mm (0.512").