

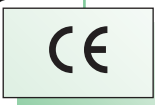
HALOGEN-FREE CABLES

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

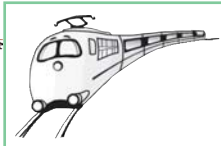
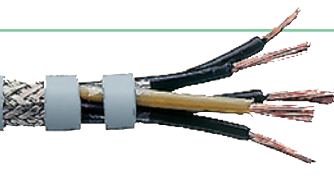
CEN/TS 45545-2*



SABIX® R 638 FRNC SABIX® Rail Control with numbered conductors and overall copper screen



D-VIERSEN · SABIX® R 638 FRNC 5 x 1.5 mm² CE



**Especially
for use in
rail vehicles**

Marking for SABIX® R 638 FRNC 66380515:
SAB BRÖCKSKES · D-VIERSEN · SABIX® R 638 FRNC 5 x 1.5 mm² CE

Our specially developed for rail vehicles control cable SABIX® R 638 FRNC with overall copper screen and suitable external materials tested according to DIN 5510-2 are particularly suited for flexible installation in rail vehicles. For these cables the stringent requirements have been confirmed in accordance with DIN 5510-2.

Construction:

Conductor:	bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
Insulation:	special SABIX®
Color code:	black conductors with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 conductors
Stranding:	in layers
Wrapping:	PETP foil
Screen:	tinned copper braiding
Jacket material:	special SABIX®
Sheath color:	gray

Outstanding features:

- ▶ halogen-free
 - ▶ good EMC characteristics**
 - ▶ 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*
- ** Copper braiding should be connected circularly to optimize the EMC characteristics

Technical data:

Nominal voltage:	U ₀ /U 300/500 V
Testing voltage U:	3000 V conductor/screen 2000 V
Min. bending radius <i>fixed laying:</i> <i>flexible application:</i>	5 x O. D. 10 x O. D.
Temperature range <i>fixed laying:</i> <i>flexible application:</i>	-40/+90 °C -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 incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft	item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft	item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 20 AWG (≈ 16/32) • 0.50 mm²					▶ 18 AWG (≈ 30/32) • 1.00 mm²					▶ 14 AWG (≈ 46/30) • 2.50 mm²				
66380205	2	0.209	5.3	26	66380210	2	0.248	6.3	56	66380225	2	0.327	8.3	100
66380305	3	0.220	5.6	30	66380310	3	0.260	6.6	68	66380325	3	0.354	9.0	128
66380405	4	0.244	6.0	41	66380410	4	0.280	7.1	94	66380425	4	0.382	9.7	163
66380505	5	0.264	6.7	47	66380510	5	0.315	8.0	110	66380525	5	0.433	11.0	215
66380705	7	0.283	7.2	54	66380710	7	0.339	8.6	138	66380725	7	0.476	12.1	276
66381205	12	0.378	9.6	101	66381210	12	0.465	11.8	226	66381225	12	0.646	16.4	466
66381805	18	0.449	11.4	138	66381810	18	0.543	13.8	315	66381825	18	0.760	19.3	666
66382505	25	0.543	13.8	183	66382510	25	0.661	16.8	454	66382525	25	0.921	23.4	931
▶ 19 AWG (≈ 23/32) • 0.75 mm²					▶ 16 AWG (≈ 27-29/30) • 1.50 mm²					▶ 12 AWG (≈ 52/28) • 4.00 mm²				
66380207	2	0.240	6.1	34	66380215	2	0.272	6.9	42	66380440	4	0.453	11.5	168
66380307	3	0.252	6.4	41	66380315	3	0.283	7.2	60	66380540	5	0.504	12.8	208
66380407	4	0.272	6.9	49	66380415	4	0.319	8.1	74	▶ 10 AWG (≈ 78/28) • 6.00 mm²				
66380507	5	0.303	7.7	65	66380515	5	0.354	9.0	91	66380460	4	0.535	13.6	237
66380707	7	0.327	8.3	81	66380715	7	0.382	9.7	120	66380560	5	0.594	15.1	282
66381207	12	0.441	11.2	130	66381215	12	0.547	13.9	202	▶ 8 AWG (≈ 77/26) • 10.00 mm²				
66381807	18	0.524	13.3	188	66381815	18	0.618	15.7	305	66380461	4	0.701	17.8	414
66382507	25	0.638	16.2	265	66382515	25	0.752	19.1	412	66380561	5	0.862	21.9	616

Other dimensions and colors are possible on request.

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Web site: www.sabcable.com