



RADOX® 4 GWK-AX 1800V M

Halogen free, compact, dual wall power cable for demanding applications

RADOX 4 GWK-AX 1800V are compact, flexible single core power cables, designed for minimum cable weight and diameter. These cables meet the requirements of the modern railway industry. They are halogen free, flame retardant, low smoke and have a low toxicity index. Demands for temperature, abrasion, ozone and oil resistance are also easily fulfilled.

RADOX 4 GWK-AX 1800V cores are suitable for protected, permanent routing inside and outside rolling stock with both DC and AC technology, and are especially well suited to inverter applications.

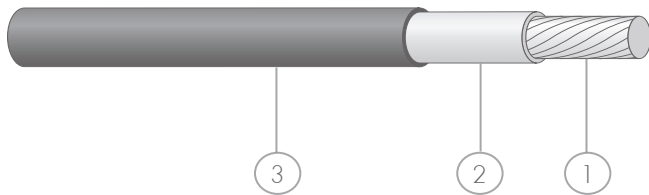
Features

- Electron beam crosslinked RADOX insulation does not melt or flow at high temperatures
- Resistant to mineral oils and detergents
- High flexibility and tight bending radii
- Easy to strip
- Meeting the common railway fire safety requirements

RADOX® 4 GKW-AX 1800V M

single core

Conductor	EN 60228, class 5	Voltage rating	1800/3000 V AC
Number of conductors	1		2700/4500 V DC
Cross section	0.5 - 400 mm ²	Temperature range	-50 to +120 °C



Composition of core

1. Conductor	stranded tin plated copper
2. Insulation	RADOX EI 110, colour: white
3. Sheath	RADOX EI 109, colour: black, further colours on request

Characteristics and specialties

- Complies with the most demanding of material requirements, as defined in EN 50264-3-1 1800V
 - extra low temperature
 - extra oil resistant
 - extra fuel resistance
- Resistance to ozone and weathering
- Broad product range

Application

- For protected connections of fixed and sporadic moving parts inside and outside of rolling stock.
- Guidelines for selections and the installation are described in the standards EN 50355 and EN50343.

Standards

Standard	Fire protection on railway vehicles	
BS 6853	category	int. Ia, Ib, II/ext. Ia, Ib, II
DIN 5510-2	hazard level	1, 2, 3, 4
EN 45545-2		
GOST 31565		
NFF 16-101	class, category	C/F0, int. A1, A2, B/ext. A1, A2, B
NFPA 130		
UNI CEI 11170-3		

For further technical details please refer to our data sheet.

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single core

Cross section	Conductor		Core	Conductor resistance	Capacity*	Fire load	Weight		Item no.
	Construction n × mm	D mm					D mm	R ₂₀ max. Ω/km	
0.5	19 × 0.18	0.90	2.45 ± 0.10	38.5	236	91	0.5	1.1	84118052
0.75	24 × 0.20	1.10	2.65 ± 0.10	26.7	276	102	0.7	1.4	84118059
1	37 × 0.18	1.20	3.00 ± 0.10	20.0	266	132	0.9	1.8	12555986
1.5	37 × 0.23	1.50	3.55 ± 0.10	13.7	307	157	1.4	2.5	12536686
2.5	61 × 0.23	1.95	3.75 ± 0.10	8.21	362	187	2.2	3.5	12536692
4	61 × 0.29	2.40	4.50 ± 0.10	5.1	396	257	3.5	5.2	12536694
6	84 × 0.30	2.95	5.20 ± 0.15	3.4	419	334	5.2	7.4	12536696
10	80 × 0.40	3.90	6.40 ± 0.15	1.95	488	467	9.1	12	12545527
16	119 × 0.40	5.30	8.40 ± 0.20	1.24	535	801	13	19	12545528
25	182 × 0.40	6.60	10.2 ± 0.30	0.8	565	1125	21	28	12545529
35	266 × 0.40	7.80	11.7 ± 0.30	0.57	607	1457	30	40	12545530
50	378 × 0.40	9.30	13.5 ± 0.30	0.39	660	1737	43	54	12545531
70	348 × 0.50	11.4	15.8 ± 0.30	0.28	755	2178	61	75	12545532
95	444 × 0.50	12.8	17.5 ± 0.30	0.21	808	2549	78	95	12545533
120	570 × 0.50	14.9	19.8 ± 0.30	0.16	862	3118	100	120	12544522
150	722 × 0.50	16.8	22.1 ± 0.30	0.13	894	3474	127	150	12545534
185	874 × 0.50	18.3	24.0 ± 0.30	0.11	903	4432	153	182	12544523
240	1147 × 0.50	21.1	27.0 ± 0.30	0.082	994	5225	201	235	12547684
300	1443 × 0.50	23.7	29.9 ± 0.40	0.065	1060	6106	251	291	12552906
400	1952 × 0.50	27.3	34.1 ± 0.50	0.005	1115	7639	342	392	12555997

* capacity in water, typical value

Other colours on request.

M: material designation according to EN 50264-1