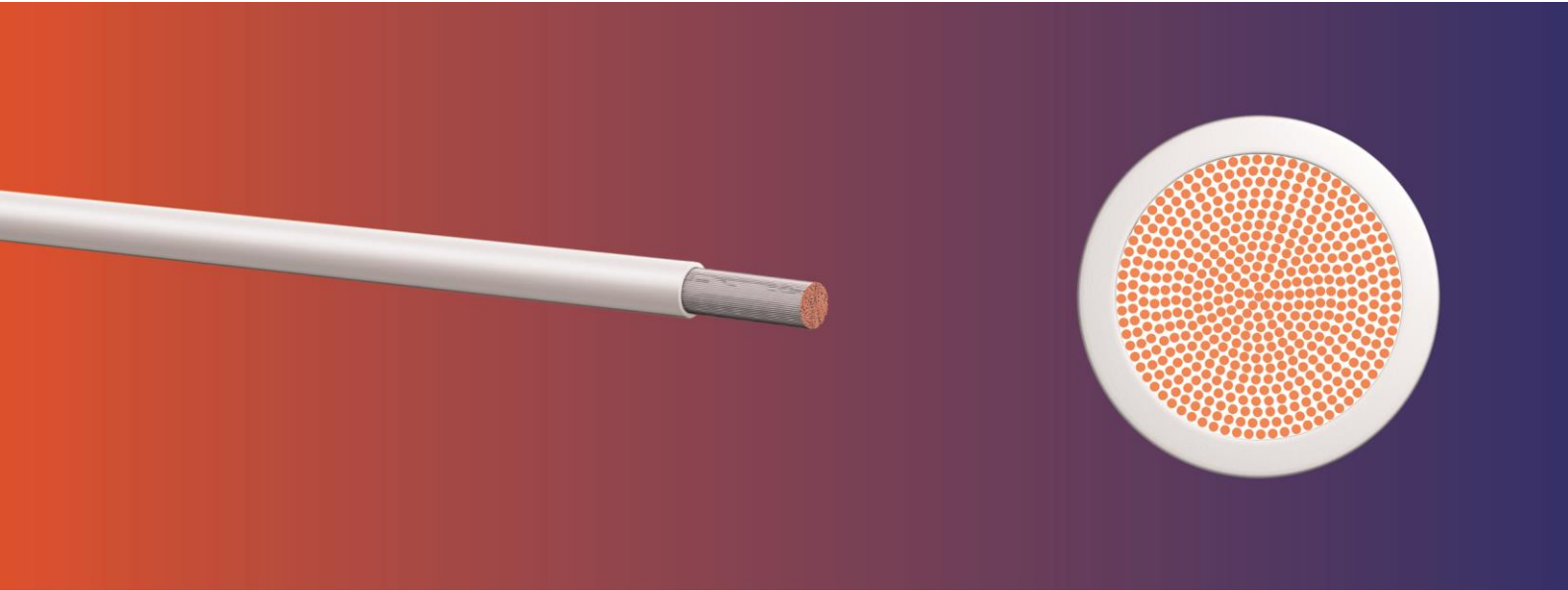


ROLLING STOCK - SIGNAL- AND CONTROL CABLE

BETrans® GKW-ENX R 600 V M

Thin-walled single core wire



Application

This single core wire is designed for fixed and protected installations inside of rail vehicles and buses. This cable with very small outer diameter is used where space is very limited. Typical applications are in switchboards and control panels of trains and multi units. For installation the guidelines of EN 50355 and EN 50343 must be considered.

Construction

Conductor	Tinned fine copper strand acc. to VDE 0295 / IEC 60228, class 5
Insulation	Polyolefin Copolymer, Comp 712, electron beam cross-linked
Core colour	Acc. to table of products (page 3), further colours upon request

Advantages

- Halogen free
- Electron beam cross-linked
- Weight and volume-optimised
- Very long lifetime
- Good media resistance
- High level cold resistance
- Infusible
- Low fire load

Electrical properties

Rated value	U0/U	0.6 / 1 kV AC
Maximum voltage	U0m	0.72 kV AC
Maximum voltage	Um	1.2 kV AC
Maximum voltage	V0	0.9 kV DC
Maximum voltage	Vm	1.8 kV DC
Test voltage		3.5 kV, 50 Hz / 5 min.

Thermal properties

Max. operating temperature	fixed installation	+120°C
Min. ambient temperature	fixed installation	-50°C
Max. short circuit temperature		+280°C (max. 5s)

Mechanical properties

Bending radius	fixed installation	> 3 x Ø (-50°C)
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Material properties / Standards

Material properties	EN 50306-1 hazard level M
Ozone resistant	EN 50305
High resistance to cold	EN 60811-504
High resistance to oil	EN 50306-2
High resistance to fuel	EN 50306-2
Resistance to acid	EN 50306-2

Material properties / Standards

Resistance to alkaline	EN 50306-2
Low fire load	DIN 51900
Limiting oxygen index (LOI)	ISO 4589-2 ASTM D 2863
Fire performance for rolling stock	EN 45545-2 HL1 - HL3
Fire performance for rolling stock	EN 50306-1
Vertical flame propagation for a single insulated wire or cable	EN 60332-1-2
Vertical flame spread of bunched wires or cables ≤ 6 mm	EN 50305
Smoke density	EN 61034-2
Toxicity of gases	EN 50305
Halogen free	EN 60754-1 EN 60684-2
Corrosivity of gases	EN 60754-2
Fire performance for rolling stock	NFPA130
Vertical flame propagation for bunched wires or cables	FT 4/IEEE 1202
Smoke release	UL 1685
Technical prescriptions concerning the burning behaviour	UN/ECE-R 118
Resistance to flame propagation	ISO 6722-1

Approvals

Swiss Federal Railways

Construction Cross-sec. [mm ²]	Conductor-Ø [mm]	Conductor construction [n x mm]	R ₂₀ [mΩ/m]	Outer-Ø [mm]	Weight [kg/km]	Fire load [kWh/m]	Part no. White	Part no. Black	Part no. Light blue	Part no. Green- yellow	Part no. yellow	Part no. orange
AWG 24 0.24	0.65	19 x 0.128	83.3	1.25 ± 0.05	4	0.007	313227		*	*		*
0.33	0.75	19 x 0.15	57.2	1.35 ± 0.05	4	0.007	316656		*	*		*
0.5	0.85	16 x 0.20	40.1	1.45 ± 0.05	6	0.008	313228		*		313229	*
0.75	1.10	24 x 0.20	26.7	1.70 ± 0.05	8	0.010	313230		*		*	*
1	1.20	32 x 0.20	20	1.90 ± 0.05	11	0.013	313231		313233	313232	316802	317056
1.5	1.45	30 x 0.25	13.7	2.25 ± 0.05	16	0.017	313234	313236	313237	313235		*
2.5	1.95	50 x 0.25	8.21	2.80 ± 0.10	25	0.023	313239		313241	313240		*

Note:

* Upon request

FELTEN Wire and Cable Solutions BV reserves the right to make changes to the product described in this specification without prior notice. FELTEN does not assume any liability which may occur due to the use of the specification described herein. Drawings are not to scale unless otherwise specified and are provided for general and informational purposes only. All values represented in this specification should be used as a guide only and exact product details can be confirmed at point of enquiry.