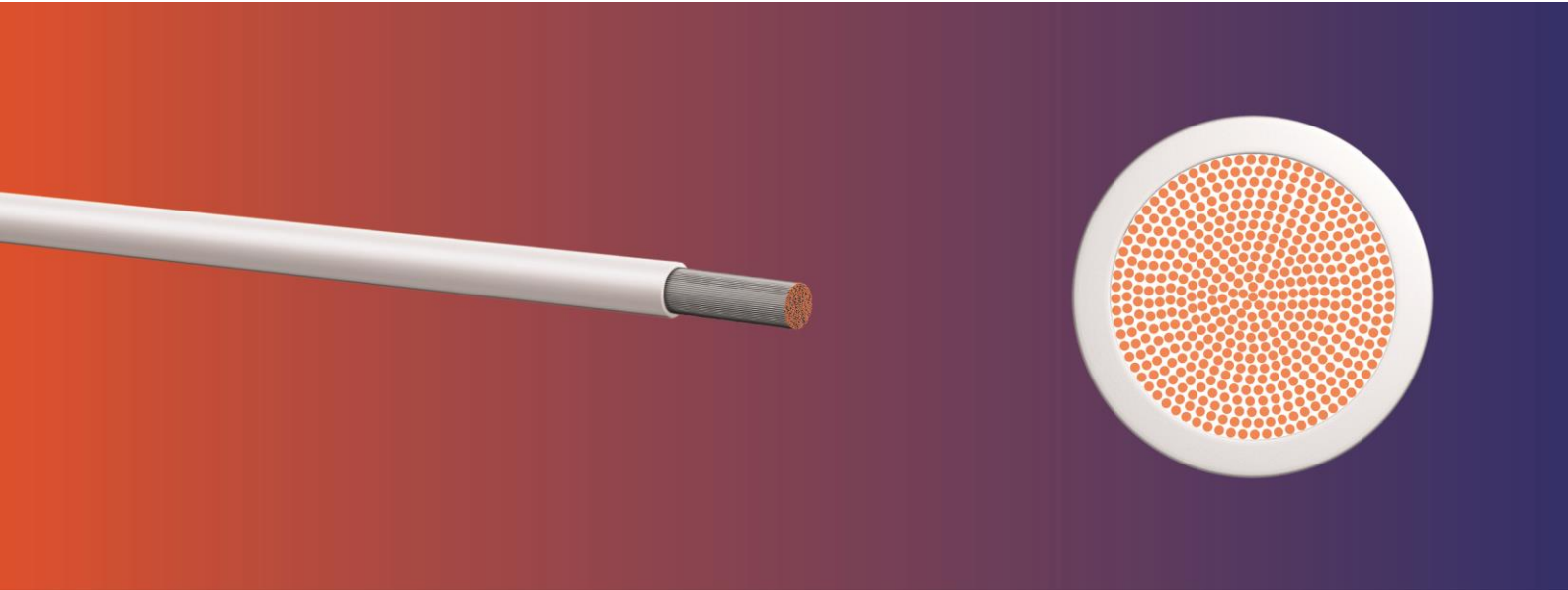


## ROLLING STOCK - SIGNAL- AND CONTROL CABLES

# BETrans® GWK-ENX EN 50306-2 300 V M Thin-walled core wire



## Application

This control wire is designed for fixed and protected installations in electrical devices and interior wiring in control cabinets inside of rail vehicles. Typical applications are switchboards and control panels in trains and locomotives. For installation the guidelines of EN 50355 and EN 50343 must be considered.

## Construction

Conductor	Tinned copper, 19 strands, according to EN 50306-2
Insulation	Polyolefin Copolymer, Comp 712, electron beam cross-linked
Colour	White, 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	U <sub>0</sub> /U	300 / 300 V AC
Maximum voltage	U <sub>0m</sub>	0.32 kV AC
Maximum voltage	U <sub>m</sub>	0.32 kV AC
Maximum voltage	V <sub>0</sub>	0.41 kV DC
Test voltage		2 kV, 50 Hz / 5 min.

## Thermal properties

Max. operating temperature	fixed installation	+125°C
Min. ambient temperature	fixed installation	-40°C
Max. short circuit temperature		+280°C (max. 5s)
Max. operating temperature		+105°C

## Mechanical properties

Bending radius	fixed installation	> 3 x Ø (-40°C)
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## Material properties / Standards

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

## Material properties / Standards

High resistance to fuel	EN 50306-2
Resistance to acid	EN 50306-2
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
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
Absence of halogens	EN 60754-1 EN 60684-2
Corrosivity of gases	EN 60754-2
Fire safety performance in rolling stock	NFPA 130
Vertical flame propagation for bunched wires or cables	FT 4/IEEE 1202
Smoke release	UL 1685

Construction Cross-sec. [mm <sup>2</sup> ]	Conductor construction [n x mm]	Conductor-Ø [mm]	R <sub>20</sub> [mΩ/m]	Outer-Ø [mm]	Weight [kg/km]	Fire load [kWh/m]	Part no.
0.5	19 x 0.182	0.85	40.10	1.42 ± 0.03	6	0.008	314671
0.75	19 x 0.225	1.05	26.70	1.62 ± 0.03	9	0.010	314678
1	19 x 0.260	1.21	20.00	1.77 ± 0.03	11	0.010	314682
1.5	19 x 0.320	1.55	13.70	2.25 ± 0.05	17	0.016	314690
2.5	19 x 0.410	1.95	8.21	2.65 ± 0.05	27	0.020	314692

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