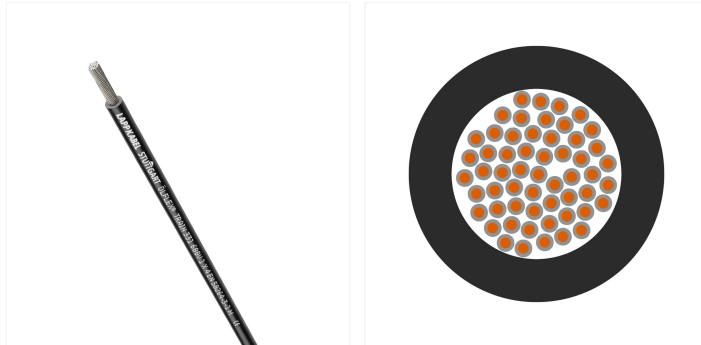


## ÖLFLEX® TRAIN 331 600V 1X4 GNYE

**Article No.:** 15331020

Railway cable; 1G4; EN 50264-3-1; Type M;  $U_0/U$ : 0,6/1 kV; -40 - 120 °C; Electron-beam cross-linked polymer compound; ; green/yellow



CE



### Details

#### Benefits

- For the protection of people and property.
- Compliant with standards for use in railway vehicles: fire safety and cable design requirements according to DIN EN 50264-3-1, type M; fire behavior test according to DIN EN 45545-2, hazard levels HL1, HL2 and HL3.
- Fire behavior also certified in accordance with NF testing standards from AFNOR (depending on the item, see Technical Data).
- Electron beam cross-linked insulating material enables use at low and high temperatures (-50°C to 120°C or 145°C (3,000 h).
- Halogen free and highly flame retardant materials reduce the risk of flame propagation, high smoke density and toxic flue gases in the event of a fire.

#### Application

- Wide range of uses in railway vehicles.
- Typical areas of application are the driver's desk, inverters, control cabinets and panels, lighting, etc.
- For fixed, protected installation and for applications where limited movement can be expected.
- Can be used in dry, damp and, especially, harsh and oily environments.

- The electron beam cross-linked polymer compound is highly resistant to oils, fuels, alkaline solutions and acids.
- Black variants are suitable for outdoor use.

### Notes

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

If applicable, the prices are solid metal prices without additional charges and VAT. Sales only to business customers.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive additional values, such as tolerances, upon request if they are available and have been released for publication.

The absence of PWIS raw materials does not protect against the potential risk of contamination with substances that interfere with the paint wetting during subsequent handling of the product(s) during transport, storage or further processing after delivery.

### Remarks

#### Technical Data

##### General information

Brand	ÖLFLEX®
Product type	Railway cable
Copper index	258.04 lb/10000 ft
Industry segment	Energy Rolling Stock Solar

##### Electrical parameters

Nominal voltage	$U_0/U$ : 0,6/1 kV AC rms according to IEC
Maximum operating voltage $U_m$	1,2 kV AC
test voltage	3.5 kV
Current rating according to	EN 50355
Short-circuit temperature [5s]	200 °C

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**Product design**

Type designation for rolling stock cables	Type M
Cable dimension	1G4
Nominal cross section conductor (mm <sup>2</sup> )	4 mm <sup>2</sup>
Conductor material	Tin-plated Copper
Conductor design	IEC 60228 class 5: fine-wire
Including protective ground	Yes
Number of cores	1
Shielded	No
Nominal conductor diameter	0.161 in
Cable form	Round
Core insulation base material	Electron-beam cross-linked polymer compound
Single core color	green/yellow
Single conductor identification	Stripes, two-colored

**Product features**

Application area	Fixed Installation
Minimum bending radius, stationary	4 x outer diameter
Temperature, fixed installation	-40 °C to 120 °C max. conductor temperature -50 °C according to GOST
Flame-retardant	Yes
Flame retardance according to	IEC 60332-1-2 EN 50305 NF-C 32-070 (C1) NF-C 32-070 (C2) NF-F 16-101 (A1) NF-F 16-101 (A2) NF-F 16-101 (B) NF-F 16-101 (C) UL FT4
low smoke density according to	IEC 61034-2 NF X 10-702 EN 50264-1

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low toxicity of combustion gases	EN 50264-1 EN 50305 NF X 70-100
Corrosiveness of combustion gases according to	EN 50264-1 IEC 60754-2
UV-resistant	Yes
UV-resistant according to	EN 50525-1 (cables with a black jacket are suitable for permanent outdoor use)
Ozone-resistant	Yes
ozone resistant according to	EN 50264-3-1, method B EN 50305
Chemical resistant	Yes
Acid-resistant	Yes
Acid-resistant according to	EN 50264-3-1
Alkali resistant	Yes
Alkali-resistant according to	EN 50264-3-1
Halogenfree	Yes
Halogen-free according to	IEC 60754-1 EN 60684-2
Oil resistant	Yes
Oil resistance according to	EN 50264-3-1
Fuel-resistant	Yes
Fuel-resistant according to	EN 50264-3-1
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L

#### Certifications and standards

CE marking	Yes
EAC certified	Not required
EAC certification number	Отказное письмо № 62, 04276
VDE certified	No
Resistance to flame propagation tested according to UN/ECE-R118	No
Tested for fire protection for railway vehicles	Yes

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Fire protection for railway vehicles hazard level	EN 45545-2 HL1
	EN 45545-2 HL2
	EN 45545-2 HL3
Standard for railway vehicles	EN 50264-3-1

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**ÖLFLEX® TRAIN 331 600V**

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Nominal conductor diameter	Copper index
15331000	ÖLFLEX® TRAIN 331 600V 1X1 BK	1 mm <sup>2</sup>	black	0.098 in	64.51 lb/10000 ft
15331001	ÖLFLEX® TRAIN 331 600V 1X1,5 BK	1.5 mm <sup>2</sup>	black	0.118 in	96.77 lb/10000 ft
15331002	ÖLFLEX® TRAIN 331 600V 1X2,5 BK	2.5 mm <sup>2</sup>	black	0.134 in	161.28 lb/10000 ft
15331003	ÖLFLEX® TRAIN 331 600V 1X4 BK	4 mm <sup>2</sup>	black	0.161 in	258 lb/10000 ft
15331004	ÖLFLEX® TRAIN 331 600V 1X6 BK	6 mm <sup>2</sup>	black	0.181 in	387 lb/10000 ft
15331005	ÖLFLEX® TRAIN 331 600V 1X10 BK	10 mm <sup>2</sup>	black	0.22 in	645.09 lb/10000 ft
15331006	ÖLFLEX® TRAIN 331 600V 1X16 BK	16 mm <sup>2</sup>	black	0.26 in	1032.15 lb/10000 ft
15331007	ÖLFLEX® TRAIN 331 600V 1X25 BK	25 mm <sup>2</sup>	black	0.327 in	1612.73 lb/10000 ft
15331008	ÖLFLEX® TRAIN 331 600V 1X35 BK	35 mm <sup>2</sup>	black	0.374 in	2257.83 lb/10000 ft
15331009	ÖLFLEX® TRAIN 331 600V 1X50 BK	50 mm <sup>2</sup>	black	0.461 in	3225.42 lb/10000 ft
15331010	ÖLFLEX® TRAIN 331 600V 1X70 BK	70 mm <sup>2</sup>	black	0.535 in	4515.59 lb/10000 ft
15331011	ÖLFLEX® TRAIN 331 600V 1X95 BK	95 mm <sup>2</sup>	black	0.614 in	6128.3 lb/10000 ft
15331012	ÖLFLEX® TRAIN 331 600V 1X120 BK	120 mm <sup>2</sup>	black	0.685 in	7741.07 lb/10000 ft
15331013	ÖLFLEX® TRAIN 331 600V 1X150 BK	150 mm <sup>2</sup>	black	0.78 in	9676.4 lb/10000 ft
15331015	ÖLFLEX® TRAIN 331 600V 1X240 BK	240 mm <sup>2</sup>	black	1 in	15482.25 lb/10000 ft
15331017	ÖLFLEX® TRAIN 331 600V 1X1 GNYE	1 mm <sup>2</sup>	green/yellow	0.098 in	64.51 lb/10000 ft
15331018	ÖLFLEX® TRAIN 331 600V 1X1,5 GNYE	1.5 mm <sup>2</sup>	green/yellow	0.118 in	96.76 lb/10000 ft
15331019	ÖLFLEX® TRAIN 331 600V 1X2,5 GNYE	2.5 mm <sup>2</sup>	green/yellow	0.134 in	161.27 lb/10000 ft
15331020	ÖLFLEX® TRAIN 331 600V 1X4 GNYE	4 mm <sup>2</sup>	green/yellow	0.161 in	258.04 lb/10000 ft
15331021	ÖLFLEX® TRAIN 331 600V 1X6 GNYE	6 mm <sup>2</sup>	green/yellow	0.181 in	387 lb/10000 ft
15331022	ÖLFLEX® TRAIN 331 600V 1X10 GNYE	10 mm <sup>2</sup>	green/yellow	0.22 in	645 lb/10000 ft
15331023	ÖLFLEX® TRAIN 331 600V 1X16 GNYE	16 mm <sup>2</sup>	green/yellow	0.26 in	1032.14 lb/10000 ft
15331024	ÖLFLEX® TRAIN 331 600V 1X25 GNYE	25 mm <sup>2</sup>	green/yellow	0.327 in	1612.73 lb/10000 ft
15331025	ÖLFLEX® TRAIN 331 600V 1X35 GNYE	35 mm <sup>2</sup>	green/yellow	0.374 in	551.4 lb/10000 ft
15331026	ÖLFLEX® TRAIN 331 600V 1X50 GNYE	50 mm <sup>2</sup>	green/yellow	0.461 in	480 lb/10000 ft
15331027	ÖLFLEX® TRAIN 331 600V 1X70 GNYE	70 mm <sup>2</sup>	green/yellow	0.535 in	4515.65 lb/10000 ft
15331028	ÖLFLEX® TRAIN 331 600V 1X95 GNYE	95 mm <sup>2</sup>	green/yellow	0.614 in	6128.39 lb/10000 ft
15331047	ÖLFLEX® TRAIN 331 600V 1X2,5 RD	2.5 mm <sup>2</sup>	red	0.134 in	161.27 lb/10000 ft
15331048	ÖLFLEX® TRAIN 331 600V 1X2,5 BU	2.5 mm <sup>2</sup>	blue	0.134 in	161.27 lb/10000 ft
15331049	ÖLFLEX® TRAIN 331 600V 1X1 RD	1 mm <sup>2</sup>	red	0.098 in	64.51 lb/10000 ft

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Nominal conductor diameter	Copper index
15331050	ÖLFLEX® TRAIN 331 600V 1X1 BU	1 mm <sup>2</sup>	blue	0.098 in	64.51 lb/10000 ft
15331051	ÖLFLEX® TRAIN 331 600V 1X1,5 RD	1.5 mm <sup>2</sup>	red	0.118 in	96.76 lb/10000 ft
15331052	ÖLFLEX® TRAIN 331 600V 1X1,5 BU	1.5 mm <sup>2</sup>	blue	0.118 in	96.76 lb/10000 ft
15331053	ÖLFLEX® TRAIN 331 600V 1X4 RD	4 mm <sup>2</sup>	red	0.161 in	38.4 lb/10000 ft
15331054	ÖLFLEX® TRAIN 331 600V 1X4 BU	4 mm <sup>2</sup>	blue	0.161 in	258.04 lb/10000 ft
15331056	ÖLFLEX® TRAIN 331 600V 1X1 GY	1 mm <sup>2</sup>	gray	0.098 in	64.51 lb/10000 ft
15331057	ÖLFLEX® TRAIN 331 600V 1X1,5 GY	1.5 mm <sup>2</sup>	gray	0.118 in	96.76 lb/10000 ft
15331058	ÖLFLEX® TRAIN 331 600V 1X2,5 GY	2.5 mm <sup>2</sup>	gray	0.134 in	161.27 lb/10000 ft
15331059	ÖLFLEX® TRAIN 331 600V 1X4 GY	4 mm <sup>2</sup>	gray	0.161 in	258.04 lb/10000 ft
15331060	ÖLFLEX® TRAIN 331 600V 1X10 GY	10 mm <sup>2</sup>	gray	0.22 in	645.09 lb/10000 ft
15331061	ÖLFLEX® TRAIN 331 600V 1X16 GY	16 mm <sup>2</sup>	gray	0.26 in	1032.15 lb/10000 ft
15331062	ÖLFLEX® TRAIN 331 600V 1X6 GY	6 mm <sup>2</sup>	gray	0.181 in	387.06 lb/10000 ft
15331065	ÖLFLEX® TRAIN 331 600V 1X0,5 BK	0.5 mm <sup>2</sup>	black	0.083 in	32.26 lb/10000 ft
15331066	ÖLFLEX® TRAIN 331 600V 1X0,75 BK	0.75 mm <sup>2</sup>	black	0.091 in	48.38 lb/10000 ft
15331069	ÖLFLEX® TRAIN 331 600V 1X0,5 RD	0.5 mm <sup>2</sup>	red	0.083 in	32.26 lb/10000 ft
15331070	ÖLFLEX® TRAIN 331 600V 1X0,75 RD	0.75 mm <sup>2</sup>	red	0.091 in	48.38 lb/10000 ft
15331074	ÖLFLEX® TRAIN 331 600V 1X0,5 BU	0.5 mm <sup>2</sup>	blue	0.083 in	32.26 lb/10000 ft
15331075	ÖLFLEX® TRAIN 331 600V 1X0,75 BU	0.75 mm <sup>2</sup>	blue	0.091 in	48.38 lb/10000 ft
15331079	ÖLFLEX® TRAIN 331 600V 1X0,5 BN	0.5 mm <sup>2</sup>	brown	0.083 in	32.26 lb/10000 ft
15331080	ÖLFLEX® TRAIN 331 600V 1X0,75 BN	0.75 mm <sup>2</sup>	brown	0.091 in	48.38 lb/10000 ft
15331081	ÖLFLEX® TRAIN 331 600V 1X1 BN	1 mm <sup>2</sup>	brown	0.098 in	64.51 lb/10000 ft
15331082	ÖLFLEX® TRAIN 331 600V 1X1,5 BN	1.5 mm <sup>2</sup>	brown	0.118 in	96.76 lb/10000 ft
15331088	ÖLFLEX® TRAIN 331 600V 1X0,5 GN	0.5 mm <sup>2</sup>	green	0.083 in	32.26 lb/10000 ft
15331089	ÖLFLEX® TRAIN 331 600V 1X0,75 GN	0.75 mm <sup>2</sup>	green	0.091 in	48.38 lb/10000 ft
15331090	ÖLFLEX® TRAIN 331 600V 1X1 GN	1 mm <sup>2</sup>	green	0.098 in	64.51 lb/10000 ft
15331091	ÖLFLEX® TRAIN 331 600V 1X1,5 GN	1.5 mm <sup>2</sup>	green	0.118 in	96.76 lb/10000 ft
15331094	ÖLFLEX® TRAIN 331 600V 1X0,5 YE	0.5 mm <sup>2</sup>	yellow	0.083 in	32.26 lb/10000 ft
15331095	ÖLFLEX® TRAIN 331 600V 1X0,75 YE	0.75 mm <sup>2</sup>	yellow	0.091 in	48.38 lb/10000 ft
15331096	ÖLFLEX® TRAIN 331 600V 1X1 YE	1 mm <sup>2</sup>	yellow	0.098 in	64.51 lb/10000 ft
15331097	ÖLFLEX® TRAIN 331 600V 1X1,5 YE	1.5 mm <sup>2</sup>	yellow	0.118 in	96.76 lb/10000 ft

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Nominal conductor diameter	Copper index
15331100	ÖLFLEX® TRAIN 331 600V 1X0,5 WH	0.5 mm <sup>2</sup>	white	0.083 in	32.26 lb/10000 ft
15331101	ÖLFLEX® TRAIN 331 600V 1X0,75 WH	0.75 mm <sup>2</sup>	white	0.091 in	48.38 lb/10000 ft
15331102	ÖLFLEX® TRAIN 331 600V 1X1 WH	1 mm <sup>2</sup>	white	0.098 in	64.51 lb/10000 ft
15331103	ÖLFLEX® TRAIN 331 600V 1X1,5 WH	1.5 mm <sup>2</sup>	white	0.118 in	96.76 lb/10000 ft
15331106	ÖLFLEX® TRAIN 331 600V 1X0,5 GY	0.5 mm <sup>2</sup>	gray	0.083 in	32.26 lb/10000 ft
15331107	ÖLFLEX® TRAIN 331 600V 1X0,75 GY	0.75 mm <sup>2</sup>	gray	0.091 in	48.38 lb/10000 ft
15331110	ÖLFLEX® TRAIN 331 600V 1X1 OG	1 mm <sup>2</sup>	orange	0.098 in	64.51 lb/10000 ft
15331116	ÖLFLEX® TRAIN 331 600V 1X1 VT	1 mm <sup>2</sup>	violet	0.098 in	64.51 lb/10000 ft
15331117	ÖLFLEX® TRAIN 331 600V 1X1,5 VT	1.5 mm <sup>2</sup>	violet	0.118 in	96.76 lb/10000 ft

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