

## ÖLFLEX® WIRE MS 2.1

USA: UL-listed (MTW), Canada: CSA (TEW), Europe: <HAR> H07V-K (depending on cross s.), tin-coated strands

Formerly: MULTI-STANDARD SC 2.1

ÖLFLEX® WIRE MS 2.1, power and control cable, PVC single core for field wiring, UL MTW VW-1, UL AWM style 1015 600 V, CSA TEW FT1, HAR H07V-K

### Info

Formerly: MULTI-STANDARD SC 2.1

CPR: Article number choice under [www.lappkabel.com/cpr](http://www.lappkabel.com/cpr)



Oil-resistant

### Benefits

For use in the most important global markets

Reduction in technical documentation

Easier storage; increases the cost-effectiveness of the production process

Works with "Conductor end sleeves XL, insulated"

### Application range

Factory wiring

Field wiring

Internal wiring of devices

Control cabinet wiring

Green insulated single cores  $\geq 4$  AWG are usable as EGC/ Equipment Grounding Conductor on cable tray according to NFPA 70 (NEC)

### Product features

Flame-retardant according IEC 60332-1-2

Flame-retardant according to UL VW1/CSA FT1

Oil-resistant

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PN 0456 / 02\_03.16

## ÖLFLEX® WIRE MS 2.1

### Norm references / Approvals

Multi-standard cables have conductor strands with nominal sizes in mm<sup>2</sup> or AWG/kcmil. The master size is mentioned in the table below, while the equivalent size of the other system can be found in the Appendix T16 of this catalogue. For this related secondary size the cross-section of the conductor mostly works out to be greater than the specified nominal value.

Cable type certifications: <HAR> H07V-K acc. EN 50525-2-31, UL AWM style 1015 (by UL acc. UL standard UL 758, U.I. Lapp GmbH's UL AWM file number: E63634), (UL) MTW (by UL acc. UL standard UL 1063, U.I. Lapp GmbH's (UL) MTW file number: E198296), CSA TEW (by CSA acc. CSA standard CSA C22.2 No. 127, CSA class 5835-01)

### Product Make-up

Fine-wire strand made of tinned-copper wires  
Special PVC-based core insulation

### Technical Data

Classification ETIM 5:	ETIM 5.0 Class-ID: EC000993 ETIM 5.0 Class-Description: Single core cable
Classification ETIM 6:	ETIM 6.0 Class-ID: EC000993 ETIM 6.0 Class-Description: Single core cable
Conductor stranding:	Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
Minimum bending radius:	OD ≤ 8 mm: 4 x OD*/2 x OD**; 8 < OD ≤ 12 mm: 5 x OD*/3 x OD**; OD > 12 mm: 6 x OD*/4 x OD**
Nominal voltage:	HAR / IEC: U0/U: 450/750 V; UL (AWM): U: 600 V; UL (MTW): U: 600 V; CSA (TEW): U: 600 V
Temperature range:	Fixed installation: HAR/IEC: -40 °C to +70 °C; UL (AWM): up to +105 °C; UL (MTW): up to +90 °C; CSA (TEW): up to +105 °C

### Note

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Packaging size: Coil ≤ 30 kg, otherwise drum

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

Prices are net prices without VAT and surcharges. Sale to business customers only.

Non-harmonised, nominal cross-sections: 0.5 mm<sup>2</sup>, 0.75 mm<sup>2</sup>, 1 mm<sup>2</sup>, 16 mm<sup>2</sup>

\*for conventional use, \*\*for careful bending; "OD" = outer diameter

The outer diameters stated in the part number table are maximum values.

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Article number	Core colour	Conductor cross-section (mm <sup>2</sup> )	Outer diameter [mm]	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)
4160100	green/yellow	0.5	2.7	100	-	4.8	11
4160111	green	0.5	2.7	100	-	4.8	11
4160103	brown	0.5	2.7	100	-	4.8	11
4160103K	brown	0.5	2.7	-	3000	4.8	11
4160101	black	0.5	2.7	100	-	4.8	11
4160101K	black	0.5	2.7	-	3000	4.8	11
4160106	grey	0.5	2.7	100	-	4.8	11
4160106K	grey	0.5	2.7	-	3000	4.8	11
4160102	blue	0.5	2.7	100	-	4.8	11
4160102K	blue	0.5	2.7	-	3000	4.8	11
4160114	dark blue	0.5	2.7	100	-	4.8	11
4160114K	dark blue	0.5	2.7	-	3000	4.8	11
4160109	orange	0.5	2.7	100	-	4.8	11
4160109K	orange	0.5	2.7	-	3000	4.8	11
4160107	violet	0.5	2.7	100	-	4.8	11
4160107K	violet	0.5	2.7	-	3000	4.8	11
4160110	yellow	0.5	2.7	100	-	4.8	11
4160105	white	0.5	2.7	100	-	4.8	11
4160105K	white	0.5	2.7	-	3000	4.8	11
4160104	red	0.5	2.7	100	-	4.8	11
4160104K	red	0.5	2.7	-	3000	4.8	11
4160108	pink	0.5	2.7	100	-	4.8	11
4160126	blue/white	0.5	2.7	100	-	4.8	11
4160144	white/blue	0.5	2.7	100	-	4.8	11
4160144K	white/blue	0.5	2.7	-	3000	4.8	11
4160200	green/yellow	0.75	2.9	100	-	7.2	14
4160200K	green/yellow	0.75	2.9	-	2500	7.2	14
4160211	green	0.75	2.9	100	-	7.2	14
4160203	brown	0.75	2.9	100	-	7.2	14
4160203K	brown	0.75	2.9	-	2500	7.2	14
4160201	black	0.75	2.9	100	-	7.2	14
4160201K	black	0.75	2.9	-	2500	7.2	14
4160206	grey	0.75	2.9	100	-	7.2	14
4160206K	grey	0.75	2.9	-	2500	7.2	14

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Article number	Core colour	Conductor cross-section (mm <sup>2</sup> )	Outer diameter [mm]	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)
4160202	blue	0.75	2.9	100	-	7.2	14
4160202K	blue	0.75	2.9	-	2500	7.2	14
4160214	dark blue	0.75	2.9	100	-	7.2	14
4160214K	dark blue	0.75	2.9	-	2500	7.2	14
4160209	orange	0.75	2.9	100	-	7.2	14
4160209K	orange	0.75	2.9	-	2500	7.2	14
4160207	violet	0.75	2.9	100	-	7.2	14
4160207K	violet	0.75	2.9	-	2500	7.2	14
4160210	yellow	0.75	2.9	100	-	7.2	14
4160205	white	0.75	2.9	100	-	7.2	14
4160205K	white	0.75	2.9	-	2500	7.2	14
4160204	red	0.75	2.9	100	-	7.2	14
4160208	pink	0.75	2.9	100	-	7.2	14
4160226	blue/white	0.75	2.9	100	-	7.2	14
4160226K	blue/white	0.75	2.9	-	2500	7.2	14
4160244	white/blue	0.75	2.9	100	-	7.2	14
4160244K	white/blue	0.75	2.9	-	2500	7.2	14
4160300	green/yellow	1	3.1	100	-	9.6	16
4160300K	green/yellow	1	3.1	-	2000	9.6	16
4160311	green	1	3.1	100	-	9.6	16
4160303	brown	1	3.1	100	-	9.6	16
4160303K	brown	1	3.1	-	2000	9.6	16
4160301	black	1	3.1	100	-	9.6	16
4160301K	black	1	3.1	-	2000	9.6	16
4160306	grey	1	3.1	100	-	9.6	16
4160306K	grey	1	3.1	-	2000	9.6	16
4160302	blue	1	3.1	100	-	9.6	16
4160302K	blue	1	3.1	-	2000	9.6	16
4160314	dark blue	1	3.1	100	-	9.6	16
4160314K	dark blue	1	3.1	-	2000	9.6	16
4160309	orange	1	3.1	100	-	9.6	16
4160309K	orange	1	3.1	-	2000	9.6	16
4160307	violet	1	3.1	100	-	9.6	16
4160310	yellow	1	3.1	100	-	9.6	16

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4160310K	yellow	1	3.1	-	2000	9.6	16
4160305	white	1	3.1	100	-	9.6	16
4160305K	white	1	3.1	-	2000	9.6	16
4160304	red	1	3.1	100	-	9.6	16
4160304K	red	1	3.1	-	2000	9.6	16
4160308	pink	1	3.1	100	-	9.6	16
4160326	blue/white	1	3.1	100	-	9.6	16
4160326K	blue/white	1	3.1	-	2000	9.6	16
4160344	white/blue	1	3.1	100	-	9.6	16
4160344K	white/blue	1	3.1	-	2000	9.6	16
4160400	green/yellow	1.5	3.4	100	-	14.4	22
4160400K	green/yellow	1.5	3.4	-	1500	14.4	22
4160411	green	1.5	3.4	100	-	14.4	22
4160403	brown	1.5	3.4	100	-	14.4	22
4160403K	brown	1.5	3.4	-	1500	14.4	22
4160401	black	1.5	3.4	100	-	14.4	22
4160401K	black	1.5	3.4	-	1500	14.4	22
4160406	grey	1.5	3.4	100	-	14.4	22
4160406K	grey	1.5	3.4	-	1500	14.4	22
4160402	blue	1.5	3.4	100	-	14.4	22
4160402K	blue	1.5	3.4	-	1500	14.4	22
4160414	dark blue	1.5	3.4	100	-	14.4	22
4160414K	dark blue	1.5	3.4	-	1500	14.4	22
4160409	orange	1.5	3.4	100	-	14.4	22
4160409K	orange	1.5	3.4	-	1500	14.4	22
4160407	violet	1.5	3.4	100	-	14.4	22
4160410	yellow	1.5	3.4	100	-	14.4	22
4160410K	yellow	1.5	3.4	-	1500	14.4	22
4160405	white	1.5	3.4	100	-	14.4	22
4160405K	white	1.5	3.4	-	1500	14.4	22
4160404	red	1.5	3.4	100	-	14.4	22
4160404K	red	1.5	3.4	-	1500	14.4	22
4160408	pink	1.5	3.4	100	-	14.4	22
4160426	blue/white	1.5	3.4	100	-	14.4	22

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4160426K	blue/white	1.5	3.4	-	1500	14.4	22
4160444	white/blue	1.5	3.4	100	-	14.4	22
4160444K	white/blue	1.5	3.4	-	1500	14.4	22
4160457	white-yellow	1.5	3.4	-	1500	14.4	22
4160500	green/yellow	2.5	4	100	-	24	37
4160500K	green/yellow	2.5	4	-	900	24	37
4160511	green	2.5	4	100	-	24	37
4160503	brown	2.5	4	100	-	24	37
4160503K	brown	2.5	4	-	900	24	37
4160501	black	2.5	4	100	-	24	37
4160501K	black	2.5	4	-	900	24	37
4160506	grey	2.5	4	100	-	24	37
4160506K	grey	2.5	4	-	900	24	37
4160502	blue	2.5	4	100	-	24	37
4160502K	blue	2.5	4	-	900	24	37
4160514	dark blue	2.5	4	100	-	24	37
4160514K	dark blue	2.5	4	-	900	24	37
4160509	orange	2.5	4	100	-	24	37
4160509K	orange	2.5	4	-	900	24	37
4160507	violet	2.5	4	100	-	24	37
4160510	yellow	2.5	4	100	-	24	37
4160510K	yellow	2.5	4	-	900	24	37
4160505	white	2.5	4	100	-	24	37
4160505K	white	2.5	4	-	900	24	37
4160504	red	2.5	4	100	-	24	37
4160504K	red	2.5	4	-	900	24	37
4160526	blue/white	2.5	4	100	-	24	37
4160544	white/blue	2.5	4	100	-	24	37
4160544K	white/blue	2.5	4	-	900	24	37
4160600	green/yellow	4	4.6	100	-	38.4	49
4160600K	green/yellow	4	4.6	-	600	38.4	49
4160611	green	4	4.6	100	-	38.4	49
4160603	brown	4	4.6	100	-	38.4	49
4160603K	brown	4	4.6	-	600	38.4	49

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Article number	Core colour	Conductor cross-section (mm <sup>2</sup> )	Outer diameter [mm]	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)
4160601	black	4	4.6	100	-	38.4	49
4160601K	black	4	4.6	-	600	38.4	49
4160606	grey	4	4.6	100	-	38.4	49
4160602	blue	4	4.6	100	-	38.4	49
4160602K	blue	4	4.6	-	600	38.4	49
4160614	dark blue	4	4.6	100	-	38.4	49
4160614K	dark blue	4	4.6	-	600	38.4	49
4160609	orange	4	4.6	100	-	38.4	49
4160609K	orange	4	4.6	-	600	38.4	49
4160607	violet	4	4.6	100	-	38.4	49
4160610	yellow	4	4.6	100	-	38.4	49
4160610K	yellow	4	4.6	-	600	38.4	49
4160605	white	4	4.6	100	-	38.4	49
4160604	red	4	4.6	100	-	38.4	49
4160604K	red	4	4.6	-	600	38.4	49
4160626	blue/white	4	4.6	100	-	38.4	49
4160644	white/blue	4	4.6	100	-	38.4	49
4160700	green/yellow	6	5.1	100	-	57.6	67
4160700K	green/yellow	6	5.1	-	400	57.6	67
4160711	green	6	5.1	100	-	57.6	67
4160703	brown	6	5.1	100	-	57.6	67
4160701	black	6	5.1	100	-	57.6	67
4160701K	black	6	5.1	-	400	57.6	67
4160706	grey	6	5.1	100	-	57.6	67
4160706K	grey	6	5.1	-	400	57.6	67
4160702	blue	6	5.1	100	-	57.6	67
4160702K	blue	6	5.1	-	400	57.6	67
4160714	dark blue	6	5.1	100	-	57.6	67
4160714K	dark blue	6	5.1	-	400	57.6	67
4160709	orange	6	5.1	100	-	57.6	67
4160709K	orange	6	5.1	-	400	57.6	67
4160707	violet	6	5.1	100	-	57.6	67
4160710	yellow	6	5.1	100	-	57.6	67
4160705	white	6	5.1	100	-	57.6	67

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4160704	red	6	5.1	100	-	57.6	67
4160704K	red	6	5.1	-	400	57.6	67
4160726	blue/white	6	5.1	100	-	57.6	67
4160744	white/blue	6	5.1	100	-	57.6	67
4160800	green/yellow	10	6.8	100	-	96	120
4160811	green	10	6.8	100	-	96	120
4160803	brown	10	6.8	100	-	96	120
4160801	black	10	6.8	100	-	96	120
4160806	grey	10	6.8	100	-	96	120
4160802	blue	10	6.8	100	-	96	120
4160814	dark blue	10	6.8	100	-	96	120
4160809	orange	10	6.8	100	-	96	120
4160810	yellow	10	6.8	100	-	96	120
4160805	white	10	6.8	100	-	96	120
4160804	red	10	6.8	100	-	96	120
4160826	blue/white	10	6.8	100	-	96	120
4160844	white/blue	10	6.8	100	-	96	120
4160900	green/yellow	16	9	100	-	153.6	185
4160911	green	16	9	100	-	153.6	185
4160903	brown	16	9	100	-	153.6	185
4160901	black	16	9	100	-	153.6	185
4160906	grey	16	9	100	-	153.6	185
4160902	blue	16	9	100	-	153.6	185
4160914	dark blue	16	9	100	-	153.6	185
4160909	orange	16	9	100	-	153.6	185
4160910	yellow	16	9	100	-	153.6	185
4160905	white	16	9	100	-	153.6	185
4160904	red	16	9	100	-	153.6	185
4161000	green/yellow	25	10.2	100	-	240	260
4161011	green	25	10.2	100	-	240	260
4161003	brown	25	10.2	100	-	240	260
4161001	black	25	10.2	100	-	240	260
4161006	grey	25	10.2	100	-	240	260
4161002	blue	25	10.2	100	-	240	260

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4161009	orange	25	10.2	100	-	240	260
4161010	yellow	25	10.2	100	-	240	260
4161005	white	25	10.2	100	-	240	260
4161004	red	25	10.2	100	-	240	260
4161100	green/yellow	35	11.7	-	-	336	360
4161111	green	35	11.7	-	-	336	360
4161101	black	35	11.7	-	-	336	360
4161106	grey	35	11.7	-	-	336	360
4161102	blue	35	11.7	-	-	336	360
4161105	white	35	11.7	-	-	336	360
4161104	red	35	11.7	-	-	336	360
4161200	green/yellow	50	13.9	-	-	480	535
4161211	green	50	13.9	-	-	480	535
4161201	black	50	13.9	-	-	480	535
4161202	blue	50	13.9	-	-	480	535
4161300	green/yellow	70	16	-	-	672	735
4161301	black	70	16	-	-	672	735
4161400	green/yellow	95	18.2	-	-	912	930
4161401	black	95	18.2	-	-	912	930
4161402	blue	95	18.2	-	-	912	930
4161500	green/yellow	120	19.8	-	-	1152	1160
4161501	black	120	19.8	-	-	1152	1160
4161502	blue	120	19.8	-	-	1152	1160

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