


U.I. Lapp GmbH	<b>PRODUCT INFORMATION</b>	
	<b>MULTI-STANDARD SC 2.1</b>	07.11.2014

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



Oil-resistant

### Application range

Factory wiring  
 Field wiring  
 Internal wiring of devices  
 Control cabinet wiring

### Product Make-up

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

### 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 features

Flame-retardant according IEC 60332-1-2  
 Flame-retardant according to UL VW1/CSA FT1  
 Oil-resistant

### Remark

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

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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### Technical Data

Classification:	ETIM 5.0 Class-ID: EC000993 ETIM 5.0 Class-Description: Single core cable
Conductor stranding:	Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5
Minimum bending radius:	$OD \leq 8 \text{ mm}: 4 \times OD^{*}/2 \times OD^{**}$ $8 < OD \leq 12 \text{ mm}: 5 \times OD^{*}/3 \times OD^{**}$ $OD > 12 \text{ mm}: 6 \times OD^{*}/4 \times OD^{**}$
Nominal voltage:	HAR / IEC: $U_0/U$ : 450/750 V
	UL (AWM): U: 600 V
	UL (MTW): U: 600 V
	CSA (TEW): U: 600 V
Temperature range:	Fixed installation: HAR/IEC: $-40^{\circ}\text{C}$ to $+70^{\circ}\text{C}$
	UL (AWM): $-40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$
	UL (MTW): $-40^{\circ}\text{C}$ to $+90^{\circ}\text{C}$
	CSA (TEW): $-40^{\circ}\text{C}$ to $+105^{\circ}\text{C}$

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Part number	Conductor cross-section (mm <sup>2</sup> )	Outer diameter (mm)	Core colour	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	Overall weight / box (kg)
4160100	0,5	2.7	green/yellow	100		4.8	10	
4160111	0,5	2.7	green	100		4.8	10	
4160103	0,5	2.7	brown	100		4.8	10	
4160101	0,5	2.7	black	100		4.8	10	
4160101K	0,5	2.7	black		3000	4.8	10	
4160106	0,5	2.7	grey	100		4.8	10	
4160106K	0,5	2.7	grey		3000	4.8	10	
4160102	0,5	2.7	blue	100		4.8	10	
4160102K	0,5	2.7	blue		3000	4.8	10	
4160114	0,5	2.7	Dark blue	100		4.8	10	
4160114K	0,5	2.7	Dark blue		3000	4.8	10	
4160109	0,5	2.7	orange	100		4.8	10	
4160109K	0,5	2.7	orange		3000	4.8	10	32.2
4160107	0,5	2.7	violet	100		4.8	10	
4160110	0,5	2.7	yellow	100		4.8	10	
4160105	0,5	2.7	white	100		4.8	10	
4160104	0,5	2.7	red	100		4.8	10	
4160104K	0,5	2.7	red		3000	4.8	10	
4160126	0,5	2.7	blue/white	100		4.8	10	
4160144K	0,5	2.7	white-blue		3000	4.8	10	
4160200	0,75	2.9	green/yellow	100		7.2	13	
4160203	0,75	2.9	brown	100		7.2	13	
4160203K	0,75	2.9	brown		2500	7.2	13	
4160201	0,75	2.9	black	100		7.2	13	
4160206	0,75	2.9	grey	100		7.2	13	
4160202	0,75	2.9	blue	100		7.2	13	
4160202K	0,75	2.9	blue		2500	7.2	13	
4160214	0,75	2.9	Dark blue	100		7.2	13	
4160214K	0,75	2.9	Dark blue		2500	7.2	13	
4160209	0,75	2.9	orange	100		7.2	13	
4160209K	0,75	2.9	orange		2500	7.2	13	
4160207	0,75	2.9	violet	100		7.2	13	
4160210	0,75	2.9	yellow	100		7.2	13	
4160205	0,75	2.9	white	100		7.2	13	

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4160204	0,75	2.9	red	100		7.2	13	
4160226	0,75	2.9	blue/white	100		7.2	13	
4160226K	0,75	2.9	blue/white		2500	7.2	13	
4160244	0,75	2.9	white-blue	100		7.2	13	
4160244K	0,75	2.9	white-blue		2500	7.2	13	
4160300	1	3.1	green/yellow	100		9.6	16	
4160300K	1	3.1	green/yellow		2000	9.6	16	
4160311	1	3.1	green	100		9.6	16	
4160303	1	3.1	brown	100		9.6	16	
4160303K	1	3.1	brown		2000	9.6	16	
4160301	1	3.1	black	100		9.6	16	
4160301K	1	3.1	black		2000	9.6	16	
4160306	1	3.1	grey	100		9.6	16	
4160302	1	3.1	blue	100		9.6	16	
4160302K	1	3.1	blue		2000	9.6	16	
4160314	1	3.1	Dark blue	100		9.6	16	
4160314K	1	3.1	Dark blue		2000	9.6	16	
4160309	1	3.1	orange	100		9.6	16	
4160309K	1	3.1	orange		2000	9.6	16	
4160307	1	3.1	violet	100		9.6	16	
4160310	1	3.1	yellow	100		9.6	16	
4160305	1	3.1	white	100		9.6	16	
4160305K	1	3.1	white		2000	9.6	16	
4160304	1	3.1	red	100		9.6	16	
4160304K	1	3.1	red		2000	9.6	16	
4160326	1	3.1	blue/white	100		9.6	16	
4160326K	1	3.1	blue/white		2000	9.6	16	
4160344	1	3.1	white-blue	100		9.6	16	
4160344K	1	3.1	white-blue		2000	9.6	16	
4160400	1,5	3.4	green/yellow	100		14.4	22	
4160400K	1,5	3.4	green/yellow		1500	14.4	22	
4160411	1,5	3.4	green	100		14.4	22	
4160403	1,5	3.4	brown	100		14.4	22	
4160403K	1,5	3.4	brown		1500	14.4	22	

Part number	Conductor cross-section (mm <sup>2</sup> )	Outer diameter (mm)	Core colour	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	Overall weight / box (kg)
4160401	1,5	3.4	black	100		14.4	22	
4160401K	1,5	3.4	black		1500	14.4	22	
4160406	1,5	3.4	grey	100		14.4	22	
4160406K	1,5	3.4	grey		1500	14.4	22	
4160402	1,5	3.4	blue	100		14.4	22	
4160402K	1,5	3.4	blue		1500	14.4	22	
4160414	1,5	3.4	Dark blue	100		14.4	22	
4160414K	1,5	3.4	Dark blue		1500	14.4	22	
4160409	1,5	3.4	orange	100		14.4	22	
4160409K	1,5	3.4	orange		1500	14.4	22	
4160407	1,5	3.4	violet	100		14.4	22	
4160410	1,5	3.4	yellow	100		14.4	22	
4160405	1,5	3.4	white	100		14.4	22	
4160405K	1,5	3.4	white		1500	14.4	22	
4160404	1,5	3.4	red	100		14.4	22	
4160404K	1,5	3.4	red		1500	14.4	22	
4160408	1,5	3.4	pink	100		14.4	22	
4160426	1,5	3.4	blue/white	100		14.4	22	
4160426K	1,5	3.4	blue/white		1500	14.4	22	
4160444	1,5	3.4	white-blue	100		14.4	22	
4160500	2,5	4.0	green/yellow	100		24.0	37	
4160500K	2,5	4.0	green/yellow		900	24.0	37	
4160511	2,5	4.0	green	100		24.0	37	
4160503	2,5	4.0	brown	100		24.0	37	
4160501	2,5	4.0	black	100		24.0	37	
4160501K	2,5	4.0	black		900	24.0	37	
4160506	2,5	4.0	grey	100		24.0	37	
4160506K	2,5	4.0	grey		900	24.0	37	
4160502	2,5	4.0	blue	100		24.0	37	
4160502K	2,5	4.0	blue		900	24.0	37	
4160514	2,5	4.0	Dark blue	100		24.0	37	
4160514K	2,5	4.0	Dark blue		900	24.0	37	
4160509	2,5	4.0	orange	100		24.0	37	
4160509K	2,5	4.0	orange		900	24.0	37	

Part number	Conductor cross-section (mm <sup>2</sup> )	Outer diameter (mm)	Core colour	m/ring	m/box	Copper index (kg/km)	Weight (kg/km)	Overall weight / box (kg)
4160507	2,5	4.0	violet	100		24.0	37	
4160510	2,5	4.0	yellow	100		24.0	37	
4160505	2,5	4.0	white	100		24.0	37	
4160505K	2,5	4.0	white		900	24.0	37	
4160504	2,5	4.0	red	100		24.0	37	
4160504K	2,5	4.0	red		900	24.0	37	
4160526	2,5	4.0	blue/white	100		24.0	37	
4160544	2,5	4.0	white-blue	100		24.0	37	
4160544K	2,5	4.0	white-blue		900	24.0	37	
4160600	4	4.6	green/yellow	100		38.4	45	
4160600K	4	4.6	green/yellow		600	38.4	45	
4160611	4	4.6	green	100		38.4	45	
4160603	4	4.6	brown	100		38.4	45	
4160601	4	4.6	black	100		38.4	45	
4160601K	4	4.6	black		600	38.4	45	
4160606	4	4.6	grey	100		38.4	45	
4160602	4	4.6	blue	100		38.4	45	
4160614	4	4.6	Dark blue	100		38.4	45	
4160609	4	4.6	orange	100		38.4	45	
4160609K	4	4.6	orange		600	38.4	45	
4160610	4	4.6	yellow	100		38.4	45	
4160610K	4	4.6	yellow		600	38.4	45	
4160605	4	4.6	white	100		38.4	45	
4160604	4	4.6	red	100		38.4	45	
4160626	4	4.6	blue/white	100		38.4	45	
4160644	4	4.6	white-blue	100		38.4	45	
4160700	6	5.1	green/yellow	100		57.6	71	
4160700K	6	5.1	green/yellow		400	57.6	71	
4160711	6	5.1	green	100		57.6	71	
4160703	6	5.1	brown	100		57.6	71	
4160701	6	5.1	black	100		57.6	71	
4160701K	6	5.1	black		400	57.6	71	
4160706	6	5.1	grey	100		57.6	71	
4160702	6	5.1	blue	100		57.6	71	


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4160702K	6	5.1	blue		400	57.6	71	
4160714	6	5.1	Dark blue	100		57.6	71	
4160714K	6	5.1	Dark blue		400	57.6	71	
4160709	6	5.1	orange	100		57.6	71	
4160709K	6	5.1	orange		400	57.6	71	
4160710	6	5.1	yellow	100		57.6	71	
4160705	6	5.1	white	100		57.6	71	
4160704	6	5.1	red	100		57.6	71	
4160704K	6	5.1	red		400	57.6	71	
4160726	6	5.1	blue/white	100		57.6	71	
4160744	6	5.1	white-blue	100		57.6	71	
4160800	10	6.8	green/yellow	100		96.0	120	
4160811	10	6.8	green	100		96.0	120	
4160803	10	6.8	brown	100		96.0	120	
4160801	10	6.8	black	100		96.0	120	
4160806	10	6.8	grey	100		96.0	120	
4160802	10	6.8	blue	100		96.0	120	
4160814	10	6.8	Dark blue	100		96.0	120	
4160809	10	6.8	orange	100		96.0	120	
4160810	10	6.8	yellow	100		96.0	120	
4160805	10	6.8	white	100		96.0	120	
4160804	10	6.8	red	100		96.0	120	
4160826	10	6.8	blue/white	100		96.0	120	
4160844	10	6.8	white-blue	100		96.0	120	
4160900	16	9.0	green/yellow	100		153.6	187	
4160911	16	9.0	green	100		153.6	187	
4160903	16	9.0	brown	100		153.6	187	
4160901	16	9.0	black	100		153.6	187	
4160906	16	9.0	grey	100		153.6	187	
4160902	16	9.0	blue	100		153.6	187	
4160914	16	9.0	Dark blue	100		153.6	187	
4160909	16	9.0	orange	100		153.6	187	
4160910	16	9.0	yellow	100		153.6	187	
4160905	16	9.0	white	100		153.6	187	

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4160904	16	9.0	red	100		153.6	187	
4161000	25	10.2	green/yellow	100		240.0	290	
4161011	25	10.2	green	100		240.0	290	
4161003	25	10.2	brown	100		240.0	290	
4161001	25	10.2	black	100		240.0	290	
4161006	25	10.2	grey	100		240.0	290	
4161002	25	10.2	blue	100		240.0	290	
4161009	25	10.2	orange	100		240.0	290	
4161010	25	10.2	yellow	100		240.0	290	
4161004	25	10.2	red	100		240.0	290	
4161100	35	11.7	green/yellow			336.0	399	
4161111	35	11.7	green			336.0	399	
4161101	35	11.7	black			336.0	399	
4161102	35	11.7	blue			336.0	399	
4161104	35	11.7	red			336.0	399	
4161200	50	13.9	green/yellow			480.0	559	
4161211	50	13.9	green			480.0	559	
4161201	50	13.9	black			480.0	559	
4161202	50	13.9	blue			480.0	559	
4161300	70	16.0	green/yellow			672.0	776	
4161301	70	16.0	black			672.0	776	
4161400	95	18.2	green/yellow			912.0	1031	
4161401	95	18.2	black			912.0	1031	
4161402	95	18.2	blue			912.0	1031	
4161500	120	19.8	green/yellow			1152.0	1285	
4161501	120	19.8	black			1152.0	1285	
4161502	120	19.8	blue			1152.0	1285	



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