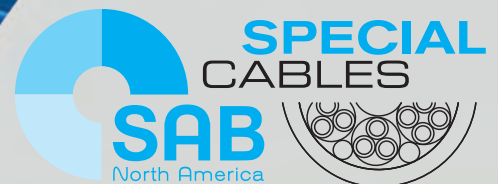


# EUROPEAN STANDARDIZED CABLES











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# European Standardized Cables

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# European Standardized Cables

## Applications

### ■ Applications of PVC control and connection cables

PVC control and connection cables are particularly suitable for control devices, e.g. on machine tools, conveyor or assembly lines, transporting equipment, production lines and construction of industrial plants. The cables can be moved after installation, especially for alignment and adjustment as well as inspection of machines, provided that the cables are not mechanically overloaded. These cables are not to be used for outdoor installation.

#### Exemplary applications:

<b>05V-K/MTW/TEW</b> <b>H05V-K/MTW/TEW</b> <b>H07V-K/MTW/TEW</b> <b>H05Z-K</b> <b>H07Z-K</b> <b>MEGA 147</b> <b>H05V2-K/H05V-K</b> <b>MEGA 157</b> <b>H07V2-K/H07V-K</b>	Construction of control cabinets, appliances and devices for communication technologies, household appliances, generator, transformer and machine construction
<b>H07RN-F</b>	Flexible, rubber insulated, neoprene jacketed, harmonized cord recommended for use in electronic and electrical equipment such as office machines and appliances designed for export to European countries and for MRO replacement of European made equipment cables.



# European Standardized Cables

**05V-K/H05V-K/MTW/TEW** Harmonized PVC hook-up wire tri-rated, 300/500 V

**H07V-K/MTW/TEW** Harmonized PVC hook-up wire tri-rated, 450/750 V



00V AWM Style 1015/10519 105°C 600V VW-1 CSA Type TEW 105°C 600V FT1 CE



Marking for H05V-K/MTW/TEW 31660180:

SAB BRÖCKSKES · D-VIERSEN · <VDE> <HAR> H05V-K 1.0mm<sup>2</sup> 18 AWG (U) Type MTW 600V AWM Style 1015/10519 105°C 600V VW-1 CSA Type TEW 105°C 600V FT1 CE

## Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	PVC, T12 acc. to EN 50363-3 + VDE 0207-363-3
<b>Color code:</b>	see color code chart below

## Outstanding features:

- flexing single conductor
- harmonized acc. to European standards
- MTW (Machine Tool Wire)
- TEW (Thermoplastic Equipment Wire)
- H05V-K & H07V-K: with reference to BS 6231 type BK

## Technical data:

<b>Nominal voltage:</b>	<b>05V-K &amp; H05V-K</b> U <sub>0</sub> /U 300/500 V	<b>H07V-K</b> U <sub>0</sub> /U 450/750 V
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	<b>05V-K &amp; H05V-K</b> 2000 V	<b>H07V-K</b> 2500 V
<b>Min. bending radius:</b>	4 x O.D.	
<b>Temperature range:</b>	<b>DIN VDE</b> static: flexible:	<b>UL-AWM/CSA</b> up to +105°C up to +105°C
		<b>(UL) MTW</b> up to +90°C up to +90°C
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1	
<b>Approvals:</b>		
<b>05V-K/MTW/TEW:</b>	<u>26 - 24 AWG:</u> UR AWM, CSA, CE, RoHS <u>22 AWG:</u> UL MTW, UR AWM, CSA, CE, RoHS	
<b>H05V-K/MTW/TEW:</b>	HAR, UL MTW, UR AWM, CSA, CE, RoHS	
<b>H07V-K/MTW/TEW:</b>	<u>16 - 2 AWG:</u> HAR, UL MTW, UR AWM, CSA, CE, RoHS <u>1 - 4/0 AWG:</u> UL MTW, UR AWM, CSA, CE, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

## 05V-K/MTW/TEW - UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3166 .. 14*	0.14	26 (≈ 18/38)	0.079	2.0	4
▶ 3166 .. 25*	0.25	24 (≈ 14/34)	0.087	2.2	5
▶ 3166 .. 34	0.34	22 (≈ 7/30)	0.091	2.3	6

\* without MTW

Other colors are available on request

## H05V-K/MTW/TEW - HAR/UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3166 .. 50	0.50	20 (≈ 16/32)	0.098	2.5	7
▶ 3166 .. 75	0.75	19 (≈ 23/32)	0.106	2.7	9
▶ 3166 .. 80	1.00	18 (≈ 30/32)	0.110	2.8	11

Other colors are available on request

## Color code for single conductors:

01 = black	06 = green <sup>1</sup>	16 = dark blue
02 = blue	07 = violet	17 = pink
03 = brown	08 = white	27 = green/yellow
04 = gray	09 = orange	32 = blue/white <sup>1</sup>
05 = yellow <sup>1</sup>	11 = red	63 = white/blue <sup>1</sup>

<sup>1</sup>Non <HAR> approved

## H07V-K/MTW/TEW - HAR/UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3167 .. 82	1.50	16 (≈ 27/30)	0.122	3.1	13
▶ 3167 .. 84	2.50	14 (≈ 46/30)	0.146	3.7	22
▶ 3167 .. 86	4.00	12 (≈ 52/28)	0.169	4.3	34
▶ 3167 .. 87	6.00	10 (≈ 78/28)	0.189	4.8	44
▶ 3167 .. 88	10.00	8 (≈ 77/26)	0.268	6.8	81
▶ 3167 .. 89	16.00	6 (≈ 122/26)	0.358	9.1	142
▶ 3167 .. 90	25.00	4 (≈ 190/26)	0.417	10.6	204
▶ 3167 .. 91	35.00	2 (≈ 272/26)	0.465	11.8	273

Other colors are available on request

## H07V-K/MTW/TEW - UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3167 .. 92	50.00	1 (≈ 400/26)	0.598	15.2	403
▶ 3167 .. 93	70.00	2/0 (≈ 543/26)	0.638	16.2	531
▶ 3167 .. 94	95.00	3/0 (≈ 484/24)	0.760	19.3	717
▶ 3167 .. 95	120.00	4/0 (≈ 589/24)	0.819	20.8	858

Other colors are available on request





# European Standardized Cables

**H05Z-K** Harmonized halogen-free hook-up wire, 300/500 V

**H07Z-K** Harmonized halogen-free hook-up wire, 450/750 V



H07Z-K 1X16 450/750V CE RoHS

## Construction:

<b>Conductor:</b>	class 5 annealed bare copper conductor acc. to EN 60228
<b>Insulation:</b>	special thermosetting low smoke zero halogen compound type EI5 acc. to EN 50363-5
<b>Color code:</b>	see color code chart below

## Outstanding features:

- flexing single conductor
- harmonized acc. to European standards
- halogen-free, low smoke and low corrosive gases

## Technical data:

<b>Nominal voltage:</b>	<b>H05Z-K</b>	<b>H07Z-K</b>
<i>DIN/VDE:</i>	U <sub>0</sub> /U 300/500 V	U <sub>0</sub> /U 450/750 V
<b>Testing voltage:</b>	<b>H05V-K</b>	<b>H07V-K</b>
	2500 V	2500 V
<b>Min. bending radius:</b>		
≤ 8 mm	4 x O.D.	
≤ 12 mm	5 x O.D.	
> 12mm	6 x O.D.	
<b>Temperature range:</b>		
<i>static:</i>	-40/+90°C	
<i>flexible:</i>	+5/+90°C	
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to EN 60332-1-2	
<b>Corrosivity:</b>	EN 50267-2.2/ VDE 0482-267-2-2 HD 22.1/ VDE 0282-1	
<b>Smoke Density:</b>	EN 61034-2	
<b>Approvals:</b>		
<i>H05Z-K:</i>	HAR/CE	
<i>H07Z-K:</i>	16 AWG - 6 AWG: HAR/CE 4 AWG - 4/0 AWG: CE	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

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### H05Z-K - HAR/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight
			inch	mm	≈lbs/mft
▶ 3186 .. 50	0.50	20 (≈ 16/32)	0.102	2.6	6
▶ 3186 .. 80	1.00	18 (≈ 30/32)	0.114	2.9	7

Other colors are available on request

### H07Z-K - HAR/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight
			inch	mm	≈lbs/mft
▶ 3187 .. 82	1.50	16 (≈ 27/30)	0.138	3.5	13
▶ 3187 .. 84	2.50	14 (≈ 46/30)	0.169	4.3	21
▶ 3187 .. 86	4.00	12 (≈ 52/28)	0.193	4.9	30
▶ 3187 .. 87	6.00	10 (≈ 78/28)	0.217	5.5	44
▶ 3187 .. 88	10.00	8 (≈ 77/26)	0.280	7.1	74
▶ 3187 .. 89	16.00	6 (≈ 122/26)	0.331	8.4	114

Other colors are available on request

### H07Z-K - CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight
			inch	mm	≈lbs/mft
▶ 3187 .. 90	25.00	4 (≈ 190/26)	0.417	10.6	195
▶ 3187 .. 91	35.00	2 (≈ 272/26)	0.476	12.1	255
▶ 3187 .. 92	50.00	1 (≈ 400/26)	0.567	14.4	355
▶ 3187 .. 93	70.00	2/0 (≈ 353/26)	0.654	16.6	503
▶ 3187 .. 94	95.00	3/0 (≈ 484/24)	0.740	18.8	671
▶ 3187 .. 95	120.00	4/0 (≈ 589/24)	0.768	19.5	846

Other colors are available on request

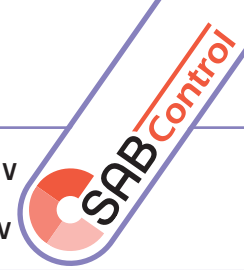
#### Color code for single conductors:

01 = black	08 = white
02 = blue	09 = orange
03 = brown	11 = red
04 = gray	17 = pink
07 = violet	27 = green/yellow

# European Standardized Cables

**MEGA 147/H05V2-K/H05V-K** Harmonized PVC hook-up wire tri-rated, 300/500 V

**MEGA 157/H07V2-K/H07V-K** Harmonized PVC hook-up wire tri-rated, 450/750 V



10519 105°C 600V VW-1 E172204 CSA Type TEW 105°C 600V FT1 LL104758 CE



Marking for H05V2-K 31470150:

SAB BRÖCKSKES · D-VIERSEN · <1 VDE > <1 HAR > H05V2-K H05V-K 0.5 mm<sup>2</sup> 20 AWG AWM Style 1015 105°C 600V E172204 CSA Type TEW 105°C 600V FT1 LL104758 CE

## Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	PVC, T13 acc. to EN 50363-3 + VDE 0207-363-3
<b>Color code:</b>	see color code chart below

## Outstanding features:

- flexing single conductor
- harmonized acc. to European standards

## Technical data:

<b>Nominal voltage:</b>	<b>MEGA 147/H05V-K/ H05V2-K:</b> U <sub>0</sub> /U 300/500 V <b>MEGA 157/H07V-K/ H07V-K:</b> U <sub>0</sub> /U 450/750 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	<b>MEGA 147/H05V-K/ H05V2-K:</b>	2000 V
	<b>MEGA 157/H07V-K/ H07V-K:</b>	2500 V
<b>Min. bending radius:</b>		
<i>fixed installation:</i>	4 x O.D.	
<i>free movement:</i>	6 x O.D.	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/CSA</b>
<i>static:</i>	-40/+90°C	up to +105°C
<i>flexible:</i>	+5/+90°C	up to +105°C
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW-1, CSA FT1	
<b>Approvals:</b>		
<i>MEGA 147/H05V2-K/ H05V-K:</i>	<u>20 - 18 AWG:</u> HAR, UR AWM, CSA, CE, RoHS	
<i>MEGA 147:</i>	<u>26 - 22 AWG:</u> UR AWM, CSA, CE, RoHS	
<i>MEGA 157/H07V2-K/ H07V-K:</i>	<u>16 - 2 AWG:</u> HAR, UR AWM, CSA, CE, RoHS	
<i>MEGA 157:</i>	<u>1 - 4/0 AWG:</u> UR AWM, CSA, CE, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

## MEGA 147- UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3147 .. 14	0.14	26 (≈ 18/38)	0.079	2.0	4
▶ 3147 .. 25	0.25	24 (≈ 14/34)	0.087	2.2	5
▶ 3147 .. 34	0.34	22 (≈ 7/30)	0.091	2.3	6

Other colors are available on request

## MEGA 157/H07V2-K/H07V-K - HAR/UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3157 .. 82	1.50	16 (≈ 27/30)	0.122	3.1	13
▶ 3157 .. 84	2.50	14 (≈ 46/30)	0.146	3.7	22
▶ 3157 .. 86	4.00	12 (≈ 52/28)	0.169	4.3	34
▶ 3157 .. 87	6.00	10 (≈ 78/28)	0.189	4.8	44
▶ 3157 .. 88	10.00	8 (≈ 77/26)	0.268	6.8	81
▶ 3157 .. 89	16.00	6 (≈ 122/26)	0.358	9.1	142
▶ 3157 .. 90	25.00	4 (≈ 190/26)	0.417	10.6	204
▶ 3157 .. 91	35.00	2 (≈ 272/26)	0.465	11.8	273

Other colors are available on request

## MEGA 147/H05V2-K/H05V-K - HAR/UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3147 .. 50	0.50	20 (≈ 16/32)	0.098	2.5	7
▶ 3147 .. 75	0.75	19 (≈ 23/32)	0.106	2.7	9
▶ 3147 .. 80	1.00	18 (≈ 30/32)	0.110	2.8	11

Other colors are available on request

## MEGA 157- UL/CSA/CE

item no.	mm <sup>2</sup>	AWG	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 3157 .. 92	50.00	1 (≈ 400/26)	0.598	15.2	403
▶ 3157 .. 93	70.00	2/0 (≈ 543/26)	0.638	16.2	531
▶ 3157 .. 94	95.00	3/0 (≈ 484/24)	0.760	19.3	717
▶ 3157 .. 95	120.00	4/0 (≈ 589/24)	0.819	20.8	858

Other colors are available on request

### Color code for single conductors:

01 = black	08 = white
02 = blue	09 = orange
03 = brown	11 = red
04 = gray	16 = dark blue
07 = violet	27 = green/yellow



# European Standardized Cables

## H07RN-F

Heavy duty neoprene jacketed harmonized cordage 450/750 V



### Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228, EN 60228, class 5
<b>Insulation:</b>	synthetic rubber, Type E14
<b>Color code:</b>	acc. to HD 308, see page O/26
<b>Stranding:</b>	from 2 conductors stranded in layers
<b>Jacket material:</b>	synthetic rubber, EM2
<b>Jacket color:</b>	black

### Technical data:

<b>Nominal voltage:</b>	Uo/U 450/750 V
<b>Testing voltage:</b>	2500 V
<b>Min. bending radius:</b>	6 x O.D.
<b>Temperature range:</b>	-25/+60°C
<b>Approvals:</b>	HAR, CE, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

### Outstanding features:



- harmonized to European standards
- high mechanical loading capacity
- UV resistant

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
39550210	2	0.295	7.5	54
39550310	3	0.327	8.3	64
39550410	4	0.354	9.0	81
39550510	5	0.386	9.8	97
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
39550215	2	0.327	8.3	67
39550315	3	0.362	9.2	84
39550415	4	0.406	10.3	108
39550515	5	0.437	11.1	128
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
39550225	2	0.386	9.8	97
39550325	3	0.429	10.9	124
39550425	4	0.469	11.9	155
39550525	5	0.520	13.2	188
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
39550240	2	0.429	10.9	131
39550340	3	0.488	12.4	175
39550440	4	0.543	13.8	215
39550540	5	0.602	15.3	269
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
39550160	1	0.323	8.2	74
39550260	2	0.488	12.4	178
39550360	3	0.567	14.4	235
39550460	4	0.614	15.6	292
39550560	5	0.697	17.7	366

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>				
39550161	1	0.394	10.0	114
39550261	2	0.689	17.5	326
39550361	3	0.764	19.4	420
39550461	4	0.843	21.4	517
39550561	5	0.933	23.7	635
<b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b>				
39550162	1	0.441	11.2	158
39550262	2	0.768	19.5	437
39550362	3	0.858	21.8	575
39550462	4	0.957	24.3	722
39550562	5	1.059	26.9	887
<b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b>				
39550163	1	0.520	13.2	235
39550263	2	0.976	24.8	679
39550363	3	1.024	26.0	843
39550463	4	1.161	29.5	1089
39550563	5	1.295	32.9	1341
<b>▶ 2 AWG (≈ 272/26) ▪ 35.00 mm<sup>2</sup></b>				
39550164	1	0.579	14.7	312
39550364	3	1.150	29.2	1112
39550464	4	1.280	32.5	1415
<b>▶ 1 AWG (≈ 400/26) ▪ 50.00 mm<sup>2</sup></b>				
39550165	1	0.669	17.0	423
39550365	3	1.319	33.5	1502
39550465	4	1.472	37.4	1932

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 2/0 AWG (≈ 543/26) ▪ 70.00 mm<sup>2</sup></b>				
39550166	1	0.744	18.9	564
39550366	3	1.469	37.3	1996
39550466	4	1.646	41.8	2570
<b>▶ 3/0 AWG (≈ 484/24) ▪ 95.00 mm<sup>2</sup></b>				
39550167	1	0.843	21.4	739
39550367	3	1.732	44.0	2644
39550467	4	1.866	47.4	3347
<b>▶ 4/0 AWG (≈ 589/24) ▪ 120.00 mm<sup>2</sup></b>				
39550168	1	0.933	23.7	921
<b>▶ 250 MCM (≈ 740/24) ▪ 150.00 mm<sup>2</sup></b>				
39550169	1	1.016	25.8	1132
<b>▶ 350 MCM (≈ 902/24) ▪ 185.00 mm<sup>2</sup></b>				
39550170	1	1.106	28.1	1371
<b>▶ 450 MCM (≈ 1220/24) ▪ 240.00 mm<sup>2</sup></b>				
39550171	1	1.232	31.3	1757
<b>▶ 550 MCM (≈ 1525/24) ▪ 300.00 mm<sup>2</sup></b>				
39550172	1	1.358	34.5	2201

Other dimensions and colors are available on request

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