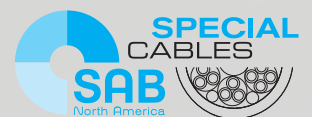


EUROPEAN STANDARDIZED CABLES











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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:


05V-K/MTW/TEW H05V-K/MTW/TEW H07V-K/MTW/TEW H05Z-K H07Z-K MEGA 147 H05V2-K/H05V-K MEGA 157 H07V2-K/H07V-K	Construction of control cabinets, appliances and devices for communication technologies, household appliances, generator, transformer and machine construction
H07RN-F	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

Selection Table



		Cable Type	H/5	H/5	H/5	H/6	H/6	H/7	H/7	H/7	H/7	H/7	H/8
			05V-K/MTW/TEW	H05V-K/MTW/TEW	H07V-K/MTW/TEW	H05Z-K	H07Z-K	MEGA 147	MEGA 147 H05V2-K, H05V-5	MEGA 157/H07V2-K/H07V-K	MEGA 157	H07RN-F	
Basic construction	Single conductor		●	●	●	●	●	●	●	●	●	●	
	Color code acc. to HD 308												●
Temperature range static	+105°C		●	●	●	●	●	●	●	●	●	●	
	+90°C		●	●	●	●	●	●	●	●	●	●	
	+60°C		●	●	●	●	●	●	●	●	●	●	
	-25°C		●	●	●	●	●	●	●	●	●	●	●
	-40°C		●	●	●	●	●	●	●	●	●	●	●
Voltage	Nominal Voltage UL/CSA 600 V		●	●	●			●	●	●	●		
	Nominal voltage U ₀ /U 300/500 V		●	●		●		●	●				
	Nominal voltage U ₀ /U 450/750 V				●		●			●	●	●	●
	Testing voltage 2000 V		●	●				●	●				
	Testing voltage 2500 V				●	●	●			●	●	●	●
Standards and approvals	Halogen-free					●	●						
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2		●	●	●			●	●	●	●	●	
	Burning characteristics: flame retardant and self-extinguishing acc. to UL VW-1 and acc. to CSA FT1		●	●	●			●	●	●	●	●	
	Burning characteristics: acc. to EN 60332-1-2					●	●						
	<HAR> standardized			● ¹	● ¹	●	● ²		●	●			●
	UL recognized		●	●	●			●	●	●	●	●	
CSA approved		●	●	●			●	●	●	●	●		


 from ¹ from 16 - 2 AWG
 to ² from 16 - 6 AWG

*The temperature range for flexible application is mentioned on the corresponding catalog page

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



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



Marking for H05V-K/MTW/TEW 3166D180:

SAB BRÖCKSKES · D-VIERSEN · <VDE> <HAR> H05V-K 1.0mm² 18 AWG (UL)

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

Construction:

Conductor:	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
Insulation:	PVC, T12 acc. to EN 50363-3 + VDE 0207-363-3
Color code:	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:

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

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

item no.	mm ²	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 ²	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 ¹	16 = dark blue
02 = blue	07 = violet	17 = pink
03 = brown	08 = white	27 = green/yellow
04 = gray	09 = orange	32 = blue/white ¹
05 = yellow ¹	11 = red	63 = white/blue ¹

¹Non <HAR> approved

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

item no.	mm ²	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 ²	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

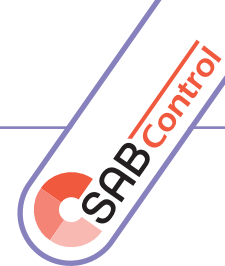
Other colors are available on request



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:

Conductor:	class 5 annealed bare copper conductor acc. to EN 60228
Insulation:	special thermosetting low smoke zero halogen compound type EI5 acc. to EN 50363-5
Color code:	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:

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

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H05Z-K - HAR/CE

item no.	mm ²	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 ²	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 ²	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

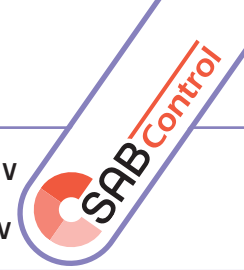
Color code for single conductors:

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 mm² 20 AWG

AWM Style 1015 105°C 600V E172204 CSA Type TEW 105°C 600V FT1 LL104758 CE

Construction:

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

Outstanding features:

- flexing single conductor
- harmonized acc. to European standards

Technical data:

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

MEGA 147- UL/CSA/CE

item no.	mm ²	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 ²	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 ²	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 ²	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	27 = green/yellow
07 = violet	



European Standardized Cables

H07RN-F

Heavy duty neoprene jacketed harmonized cordage 450/750 V



Construction:

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

Technical data:

Nominal voltage:	Uo/U 450/750 V
Testing voltage:	2500 V
Min. bending radius:	6 x O.D.
Temperature range:	-25/+60°C
Approvals:	HAR, CE, RoHS
Absence of harmful substances:	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
▶ 18 AWG (≈ 30/32) ▪ 1.00 mm²				
39550210	2	0.327	8.3	67
39550310	3	0.350	8.9	81
39550410	4	0.382	9.7	87
39550510	5	0.433	11.0	114
▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm²				
39550215	2	0.354	9.0	87
39550315	3	0.382	9.7	101
39550415	4	0.429	10.9	128
39550515	5	0.457	11.6	155
▶ 14 AWG (≈ 46/30) ▪ 2.50 mm²				
39550225	2	0.409	10.4	128
39550325	3	0.449	11.4	148
39550425	4	0.512	13.0	188
39550525	5	0.563	14.3	228
▶ 12 AWG (≈ 52/28) ▪ 4.00 mm²				
39550240	2	0.476	12.1	161
39550340	3	0.512	13.0	205
39550440	4	0.567	14.4	262
39550540	5	0.634	16.1	316
▶ 10 AWG (≈ 78/28) ▪ 6.00 mm²				
39550160	1	0.323	8.2	94
39550260	2	0.539	13.7	195
39550360	3	0.575	14.6	333
39550460	4	0.650	16.5	349
39550560	5	0.713	18.1	430

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 8 AWG (≈ 77/26) ▪ 10.00 mm²				
39550161	1	0.394	10.0	141
39550261	2	0.748	19.0	356
39550361	3	0.803	20.4	591
39550461	4	0.858	21.8	638
39550561	5	0.965	24.5	773
▶ 6 AWG (≈ 122/26) ▪ 16.00 mm²				
39550162	1	0.441	11.2	195
39550262	2	0.843	21.4	491
39550362	3	0.902	22.9	847
39550462	4	0.965	24.5	941
39550562	5	1.075	27.3	1142
▶ 4 AWG (≈ 190/26) ▪ 25.00 mm²				
39550163	1	0.508	12.9	276
39550263	2	1.012	25.7	665
39550363	3	1.079	27.4	979
39550463	4	1.197	30.4	1310
39550563	5	1.283	32.6	1613
▶ 2 AWG (≈ 272/26) ▪ 35.00 mm²				
39550164	1	0.579	14.7	376
39550364	3	1.193	30.3	1282
39550464	4	1.323	33.6	1814
▶ 1 AWG (≈ 400/26) ▪ 50.00 mm²				
39550165	1	0.677	17.2	497
39550365	3	1.386	35.2	1734
39550465	4	1.535	39.0	2419

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
▶ 2/0 AWG (≈ 543/26) ▪ 70.00 mm²				
39550166	1	0.752	19.1	706
39550366	3	1.555	39.5	2305
39550466	4	1.728	43.9	2980
▶ 3/0 AWG (≈ 484/24) ▪ 95.00 mm²				
39550167	1	0.850	21.6	874
39550367	3	1.772	45.0	2957
39550467	4	1.984	50.4	4166
▶ 4/0 AWG (≈ 589/24) ▪ 120.00 mm²				
39550168	1	0.933	23.7	1048
▶ 250 MCM (≈ 740/24) ▪ 150.00 mm²				
39550169	1	1.028	26.1	1335
▶ 350 MCM (≈ 902/24) ▪ 185.00 mm²				
39550170	1	1.130	28.7	1546
▶ 450 MCM (≈ 1220/24) ▪ 240.00 mm²				
39550171	1	1.256	31.9	2083
▶ 550 MCM (≈ 1525/24) ▪ 300.00 mm²				
39550172	1	1.370	34.8	2345

Other dimensions and colors are available on request

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