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# VDE-approved PVC-Control Cables

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# VDE-approved PVC-Control Cables

This certification/licency is issued according to the rules of the HAR Agreement, wherein the certification/licency issued by any certification body adhering to the HAR Agreement has the same worth an validity in all the other certification bodies countries.

B

This Marks Certification/Licency is the basis for the EC Declaration of Conformity and the CE Marking by the manufacturer or his agent and shows the conformity with the said standards as defined by the EC Low-Voltage Directive 73/23/EEC including amendments.

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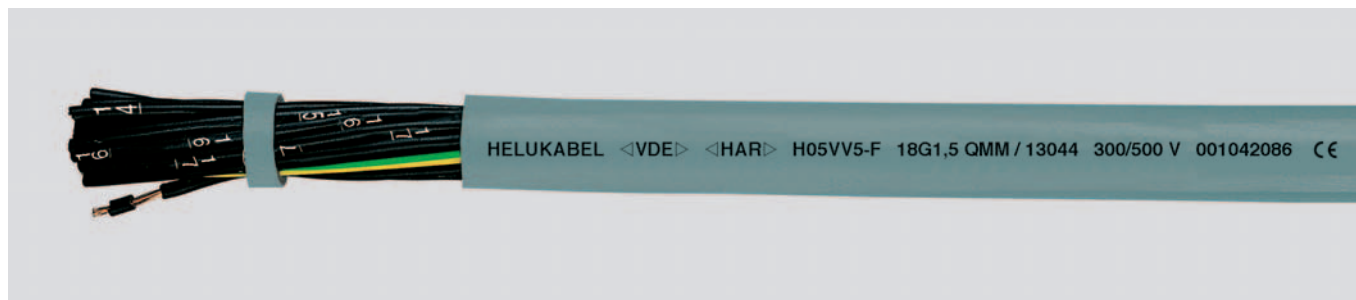
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Photo: HELUKABEL®



## Technical data

- Control cable, special PVC with oil resistant outer jacket to DIN VDE 0281 part 13, HD 21.13S1 and IEC 60227/75
- **Temperature range**
  - flexing - 5°C to +70°C
  - fixed installation -40°C to +70°C
- **Nominal voltage**  $U_0/U$  300/500 V
- **Test voltage** 2000 V, 5 min
- **Breakdown voltage** min. 4000 V
- **Insulation resistance** min. 20 MOhm $\times$ km
- **Minimum bending radius** flexing, approx. 7,5 $\times$ cable  $\varnothing$
- **Radiation resistance** up to 80 $\times$ 10<sup>6</sup> cJ/kg (up to 80 Mrad)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Cable structure

- Bare copper, fine wire stranded conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5, HD 383 and IEC 60228 cl. 5
- Special PVC core insulation TI2 to DIN VDE 0281 part 1
- Cores twisted together (laid up)
- Black cores with white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Special PVC outer jacket grey, TM5 to DIN VDE 0281 part 1, HD 21.1S2/A16
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/EN 50265-2-1/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air. These are designed as control and connecting cables to machines, tool machineries, conveyor belts and production lines. These cables have been tested according to DIN VDE 0207 and 0473 and found to be totally oil resistant.

These cables are not effected to the chemical influences. Cables for moist and wet rooms, specially used for machines in breweries, bottling plants and car washing stations.

**Note** These cables may be allowed to move once installed provided that the cables are not mechanically stressed during movement.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
13122 OZ	2 x 0,5	5,9	9,7	46	20
13001	3 G 0,5	6,2	14,4	54	20
13002	4 G 0,5	6,7	19,0	65	20
13003	5 G 0,5	7,4	24,0	80	20
13004	6 G 0,5	8,4	29,0	104	20
13005	7 G 0,5	9,1	33,6	119	20
13920	8 G 0,5	9,6	38,0	134	20
13006	9 G 0,5	10,6	43,0	136	20
13921	10 G 0,5	10,8	48,0	166	20
13007	12 G 0,5	11,2	58,0	186	20
13922	14 G 0,5	11,7	67,0	215	20
13008	18 G 0,5	13,0	86,0	251	20
13009	25 G 0,5	16,0	120,0	349	20
13923	27 G 0,5	16,1	129,6	373	20
13010	34 G 0,5	17,7	163,0	480	20
13924	36 G 0,5	17,7	172,0	510	20
13125	41 G 0,5	19,8	196,0	570	20
13011	50 G 0,5	21,5	240,0	658	20
13012	61 G 0,5	23,0	293,0	780	20
13925	65 G 0,5	25,3	312,0	810	20
13123 OZ	2 x 0,75	6,3	14,1	52	18
13013	3 G 0,75	6,7	21,6	68	18
13014	4 G 0,75	7,3	29,0	82	18
13015	5 G 0,75	8,3	36,0	107	18
13016	6 G 0,75	9,0	43,0	132	18
13017	7 G 0,75	9,7	50,0	145	18
13926	8 G 0,75	10,4	58,0	189	18
13018	9 G 0,75	11,5	65,0	194	18
13019	12 G 0,75	12,1	86,0	231	18
13927	14 G 0,75	12,4	101,0	274	18
13020	18 G 0,75	14,0	130,0	313	18
13021	25 G 0,75	17,0	180,0	461	18
13928	27 G 0,75	17,1	195,0	493	18
13022	34 G 0,75	19,1	245,0	614	18
13929	36 G 0,75	19,1	259,0	646	18
13126	41 G 0,75	21,3	295,0	730	18
13023	50 G 0,75	23,2	360,0	896	18
13024	61 G 0,75	25,8	439,0	1030	18
13930	65 G 0,75	27,1	468,0	1071	18

G = with green-yellow earth core  
X = without green-yellow earth core (OZ)  
PVC cables will be changed to lead free PVC successively.  
Further sizes available on request.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
13119 OZ	2 x 1	6,6	19,0	66	17
13025	3 G 1	7,0	29,0	78	17
13026	4 G 1	7,6	38,0	104	17
13027	5 G 1	8,7	48,0	123	17
13028	6 G 1	9,5	58,0	152	17
13029	7 G 1	10,2	67,0	183	17
13931	8 G 1	11,0	77,0	220	17
13030	9 G 1	12,1	86,0	230	17
13031	12 G 1	12,7	115,0	269	17
13932	14 G 1	13,3	134,0	361	17
13032	18 G 1	15,0	173,0	400	17
13933	19 G 1	15,0	183,0	413	17
13033	25 G 1	18,0	240,0	546	17
13934	27 G 1	18,0	259,0	582	17
13034	34 G 1	20,6	326,0	724	17
13124	36 G 1	21,0	348,0	775	17
13935	37 G 1	21,0	355,0	785	17
13127	41 G 1	22,5	392,0	822	17
13035	50 G 1	24,5	480,0	1052	17
13036	61 G 1	26,0	586,0	1265	17
13936	65 G 1	28,1	624,0	1315	17

Continuation ►

**\*) Note**  
AWG sizes are approximate equivalent values.  
The actual cross-section is in mm<sup>2</sup> – see page T 15.

# H05VV5-F (NYSLYÖ-JZ)

flexible, number coded,  
VDE approved



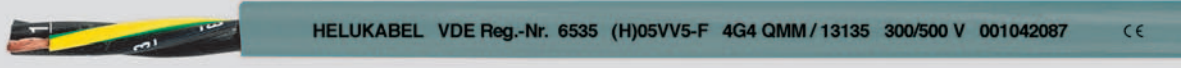
CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.*)
13120 OZ	2x1,5	7,3	29,0	77	16
13037	3G1,5	7,9	43,0	97	16
13038	4G1,5	8,7	58,0	128	16
13039	5G1,5	9,6	72,0	149	16
13040	6G1,5	10,7	86,0	196	16
13041	7G1,5	11,8	101,0	216	16
13937	8G1,5	13,2	115,0	271	16
13042	9G1,5	13,5	130,0	282	16
13043	12G1,5	14,4	173,0	324	16
13121	14G1,5	15,3	202,0	372	16
13044	18G1,5	17,2	259,0	485	16
13938	19G1,5	17,2	274,0	495	16
13045	25G1,5	21,7	360,0	671	16
13939	27G1,5	21,7	389,0	695	16
13046	32G1,5	22,4	461,0	820	16
13047	34G1,5	24,1	490,0	881	16
13940	36G1,5	24,4	518,0	905	16
13941	37G1,5	24,4	532,0	920	16
13128	41G1,5	26,3	590,0	1085	16
13048	50G1,5	28,9	720,0	1381	16
13049	61G1,5	30,8	878,0	1640	16
13942	65G1,5	32,2	963,0	1730	16
13943 OZ	2x2,5	9,1	48,0	110	14
13050	3G2,5	9,6	72,0	154	14
13051	4G2,5	10,8	96,0	212	14
13052	5G2,5	11,6	120,0	242	14
13053	7G2,5	14,2	168,0	350	14
13945	8G2,5	16,1	192,0	379	14
13054	12G2,5	17,7	288,0	543	14
13946	14G2,5	19,0	336,0	611	14
13055	18G2,5	21,4	432,0	787	14
13056	25G2,5	26,1	600,0	1175	14
13947	27G2,5	26,2	648,0	1280	14
13057	34G2,5	29,5	816,0	1529	14
13948	36G2,5	29,6	864,0	1791	14
13949	41G2,5	32,0	984,0	1905	14
13058	50G2,5	35,0	1200,0	2290	14
13059	61G2,5	37,1	1464,0	2724	14

G = with green-yellow earth core  
X = without green-yellow earth core (OZ)

\*) Note  
AWG sizes are approximate equivalent values.  
The actual cross-section is in mm<sup>2</sup> – see page T 15.

Further sizes available on request.  
PVC cables will be changed to lead free PVC successively.



### Technical data

- Control cable, special PVC with oil resistant outer jacket adapted to VDE 0281 part 13, HD 21.13S1 and IEC 60227/75 deviation of conductor cross sections.
- **Temperature range**
  - flexing - 5°C to +70°C
  - fixed installation -40°C to +70°C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V
- **Test voltage** 2000 V, 5 min
- **Breakdown voltage** min. 4000 V
- **Insulation resistance** min. 20 MOhm x km
- **Minimum bending radius** flexing, approx. 7,5 x cable Ø
- **Radiation resistance** up to 80 x 10<sup>6</sup> cJ/kg (up to 80 Mrad)

### Cable structure

- Bare copper, fine wire stranded conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5, IEC 60228 cl. 5 and HD 383
- Special PVC core insulation TI2 to DIN VDE 0281 part 1
- Cores twisted together (laid up)
- Black cores with white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Special PVC outer jacket grey, TM5 to DIN VDE 0281 part 1, HD 21.1S2/A16
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/EN 50265-2-1/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

### Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air. These are designed as control and connecting cables to machines, tool machineries, conveyor belts and production lines. These cables have been tested according to DIN VDE 0207 and 0473 and found to be totally oil resistant. These cables are not effected to the chemical influences. Cables for moist and wet rooms, specially used for machines in breweries, bottling plants and car washing stations.



CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

#### (H)05VV5-F ((N)YSLYÖ-JZ)

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg/km	Weight ca. kg/km	AWG-no. *)
13133 OZ	2 x 4	10,7	77,0	195	12
13134	3 G4	11,3	115,0	230	12
13135	4 G4	12,4	154,0	295	12
13136	5 G4	13,9	192,0	361	12
13138	7 G4	16,5	269,0	466	12
13141	12 G4	20,8	461,0	810	12
13142 OZ	2 x 6	12,0	116,0	280	10
13143	3 G6	12,9	173,0	358	10
13144	4 G6	14,2	230,0	424	10
13145	5 G6	15,9	288,0	525	10
13146	7 G6	18,9	403,0	625	10

#### PVC control cable with oil resistant outer jacket

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg/km	Weight ca. kg/km	AWG-no. *)
13148	3 G10	16,3	288,0	540	8
13149	4 G10	18,1	384,0	701	8
13150	5 G10	20,3	480,0	858	8
13151	7 G10	24,3	672,0	1106	8
13153	3 G16	18,3	461,0	827	6
13154	4 G16	20,9	614,0	1035	6
13155	5 G16	23,4	768,0	1259	6
13156	7 G16	28,5	1075,0	1780	6
13159	4 G25	26,3	960,0	1582	4
13160	5 G25	29,5	1200,0	1852	4

G = with green-yellow earth core  
X = without green-yellow earth core (OZ)

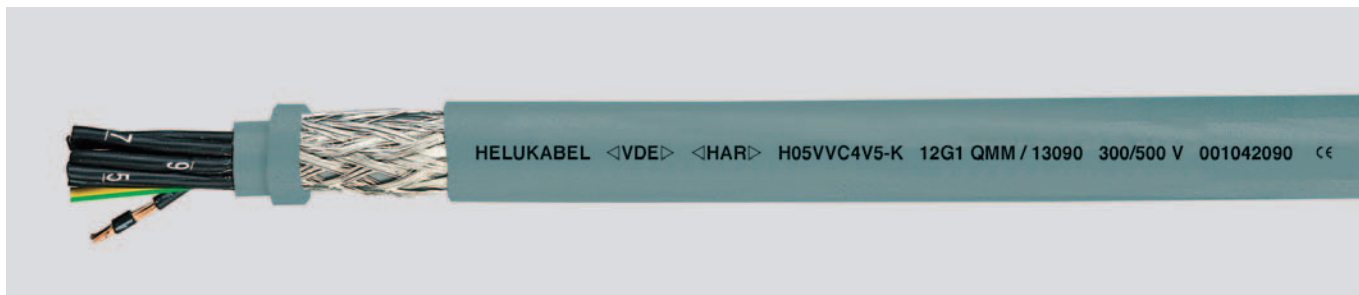


Photo: Homag

\*) Note  
AWG sizes are approximate equivalent values.  
The actual cross-section is in mm<sup>2</sup>  
- see page T 15.

PVC cables will be changed to lead free PVC successively.

# H05VVC4V5-K (NYSLYCYÖ-JZ) number coded, screened, VDE approved, EMC\*-preferred type



## Technical data

- Control cable, special PVC with oil resistant outer jacket to DIN VDE 0281 part 13, HD 21.13S1 and IEC 60227/74
- **Temperature range**
  - flexing - 5°C to +70°C
  - fixed installation -40°C to +70°C
- **Nominal voltage**  $U_0/U$  300/500 V
- **Test voltage**
  - core/core 2 kV, 5 min
  - core/screen 2 kV, 5 min
- **Breakdown voltage** min. 4000 V
- **Insulation resistance** min. 20 MOhm x km
- **Coupling resistance** at 30 MHz  $\leq$  250 Ohm/km
- **Minimum bending radius** flexing, approx. 10 x cable  $\varnothing$
- **Radiation resistance** up to  $80 \times 10^6$  cJ/kg (up to 80 Mrad)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Cable structure

- Bare copper, fine wire stranded conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5, HD 383 and IEC 60228 cl. 5
- Special PVC core insulation TI2 to DIN VDE 0281 part 1
- Cores twisted together (laid up)
- Black cores with white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Special PVC inner sheath, TM2 to DIN VDE 0281 part 1
- Tinned copper braided screening, covering approx. 85%
- Special PVC outer jacket grey, TM5 to DIN VDE 0281 part 1, HD 21.1S2/A16
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/EN 50265-2-1/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air. These are designed as control and connecting cables to machines, tool machineries, conveyor belts and production lines. These cables have been tested according to DIN VDE 0207 and 0473 and found to be totally oil resistant. These cables are not effected to the chemical influences. Cables for moist and wet rooms, specially used for machines in breweries, bottling plants and car washing stations.

**Note** These cables may be allowed to move once installed provided that the cables are not mechanically stressed during movement. The interconnection of parts of machines used for manufacturing purposes including machine tools where some degree of protection against electromagnetic interference is required.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.*)
13951 OZ	2x0,5	8,0	30	92	20
13060	3G0,5	8,4	36	109	20
13061	4G0,5	9,1	42	126	20
13062	5G0,5	10,1	48	156	20
13063	6G0,5	10,7	58	176	20
13064	7G0,5	11,4	64	192	20
13952	8G0,5	12,5	72	211	20
13065	9G0,5	12,5	80	230	20
13066	12G0,5	13,5	105	280	20
13953	14G0,5	14,2	114	302	20
13067	18G0,5	15,8	137	384	20
13068	25G0,5	18,6	210	556	20
13954	27G0,5	18,6	236	599	20
13069	34G0,5	20,8	298	634	20
13955	36G0,5	20,8	317	620	20
13129	41G0,5	23,0	349	770	20
13070	50G0,5	25,0	470	970	20
13071	61G0,5	26,8	530	1072	20
13956	65G0,5	28,4	563	1198	20
13957 OZ	2x0,75	8,3	41	102	18
13072	3G0,75	8,8	48	115	18
13073	4G0,75	9,8	55	150	18
13074	5G0,75	10,8	66	173	18
13075	6G0,75	11,4	75	195	18
13076	7G0,75	12,1	85	235	18
13958	8G0,75	12,7	98	268	18
13077	9G0,75	13,8	112	285	18
13078	12G0,75	14,3	135	327	18
13959	14G0,75	14,4	151	362	18
13079	18G0,75	16,9	190	488	18

G = with green-yellow earth core  
 X = without green-yellow earth core (OZ)  
 PVC cables will be changed to lead free PVC successively.

\* EMC = Electromagnetic compatibility.  
 With VDE- and HAR-markings.  
 Further sizes available on request.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.*)
13080	25G0,75	20,0	275	654	18
13960	27G0,75	20,0	316	708	18
13081	34G0,75	22,1	340	821	18
13961	36G0,75	22,1	358	899	18
13130	41G0,75	23,9	390	970	18
13082	50G0,75	26,8	582	1160	18
13083	61G0,75	29,4	679	1402	18
13962	65G0,75	31,2	708	1504	18
13963 OZ	2x1	8,6	48	114	17
13084	3G1	9,3	59	142	17
13085	4G1	10,2	70	175	17
13086	5G1	11,0	84	205	17
13087	6G1	11,8	88	236	17
13088	7G1	12,9	106	264	17
13964	8G1	13,6	121	301	17
13089	9G1	14,4	136	335	17
13090	12G1	15,6	174	420	17
13965	14G1	15,7	198	433	17
13091	18G1	17,4	240	561	17
13966	19G1	17,4	251	584	17
13092	25G1	21,1	332	766	17
13967	27G1	21,9	380	822	17
13093	34G1	24,1	420	996	17
13968	36G1	23,8	441	1001	17
13969	37G1	25,1	452	1018	17
13131	41G1	26,0	578	1155	17
13094	50G1	28,5	728	1300	17
13095	61G1	30,1	883	1500	17
13970	65G1	32,4	914	1510	17

Continuation ▶

\*) Note  
 AWG sizes are approximate equivalent values.  
 The actual cross-section is in mm<sup>2</sup> – see page T 15.

# H05WVC4V5-K (NYSLYCYÖ-JZ) number coded, screened, VDE approved, EMC\*-preferred type



CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.*)
13971 OZ	2 x 1,5	9,1	69	146	16
13096	3 G 1,5	10,2	75	176	16
13097	4 G 1,5	10,9	90	207	16
13098	5 G 1,5	11,6	108	235	16
13099	6 G 1,5	12,4	130	279	16
13100	7 G 1,5	13,5	157	314	16
13972	8 G 1,5	15,6	173	345	16
13101	9 G 1,5	15,6	185	380	16
13102	12 G 1,5	16,8	240	500	16
13973	14 G 1,5	18,3	283	560	16
13103	18 G 1,5	20,0	355	707	16
13974	19 G 1,5	20,4	366	723	16
13104	25 G 1,5	24,2	448	950	16
13975	27 G 1,5	24,6	516	1014	16
13105	32 G 1,5	26,0	702	1133	16
13106	34 G 1,5	26,3	754	1204	16
13976	36 G 1,5	27,7	778	1261	16
13977	37 G 1,5	27,7	790	1300	16
13132	41 G 1,5	29,1	805	1453	16

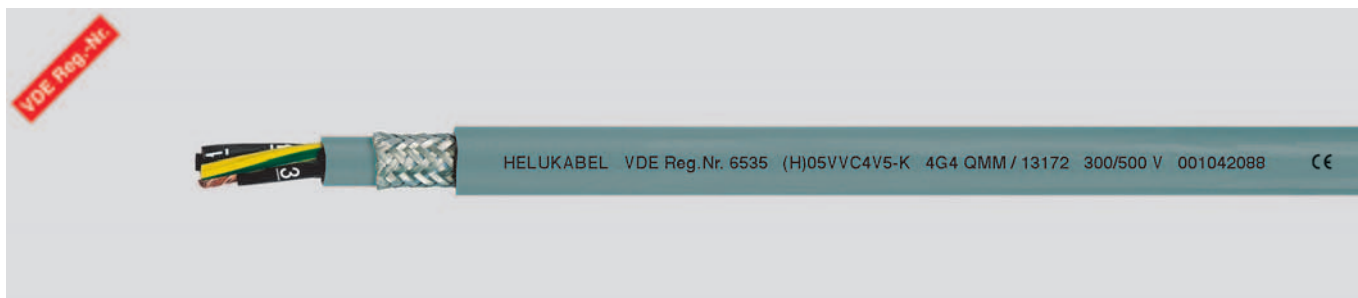
Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no.*)
13107	50 G 1,5	34,0	1033	1663	16
13108	61 G 1,5	36,5	1238	1852	16
13978	65 G 1,5	38,1	1296	1971	16
13985 OZ	2 x 2,5	11,4	81	190	14
13109	3 G 2,5	11,7	104	243	14
13110	4 G 2,5	12,8	134	280	14
13111	5 G 2,5	13,9	175	342	14
13112	7 G 2,5	15,9	225	439	14
13979	8 G 2,5	18,7	289	489	14
13113	12 G 2,5	20,6	375	760	14
13980	14 G 2,5	22,5	415	890	14
13114	18 G 2,5	24,3	522	1052	14
13115	25 G 2,5	29,0	897	1375	14
13981	27 G 2,5	29,8	971	1507	14
13116	34 G 2,5	33,0	1179	1892	14
13982	36 G 2,5	33,3	1268	1998	14
13983	41 G 2,5	36,0	1473	2286	14
13117	50 G 2,5	38,5	1660	2673	14
13118	61 G 2,5	42,0	1992	3085	14

G = with green-yellow earth core  
X = without green-yellow earth core (OZ)

\* EMC = Electromagnetic compatibility.  
With VDE- and HAR-markings.  
Further sizes available on request.  
PVC cables will be changed to lead free PVC successively.

\*) Note  
AWG sizes are approximate equivalent values.  
The actual cross-section is in mm<sup>2</sup> – see page T 15.

# (H)05VVC4V5-K ((N)YSLYCYÖ-JZ) number coded, screened, VDE approved, EMC\*-preferred type



## Technical data

- Control cable, special PVC with oil resistant outer jacket to DIN VDE 0281 part 13, HD 21.13S1 and IEC 60227/74
- **Temperature range**
  - flexing - 5°C to +70°C
  - fixed installation -40°C to +70°C
- **Nominal voltage**  $U_0/U$  300/500 V
- **Test voltage**
  - core/core 2 kV, 5 min
  - core/screen 2 kV, 5 min
- **Breakdown voltage** min. 4000 V
- **Insulation resistance** min. 20 MOhm x km
- **Coupling resistance** at 30 MHz  $\leq$  250 Ohm/km
- **Minimum bending radius** flexing, approx. 10 x cable  $\varnothing$
- **Radiation resistance** up to  $80 \times 10^6$  cJ/kg (up to 80 Mrad)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Cable structure

- Bare copper, fine wire stranded conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5, HD 383 and IEC 60228 cl. 5
- Special PVC core insulation TI2 to DIN VDE 0281 part 1
- Cores twisted together (laid up)
- Black cores with white figure imprint to DIN VDE 0293
- Green-yellow earth core in the outer layer (3 cores and above)
- Special PVC inner sheath, TM2 to DIN VDE 0281 part 1
- Tinned copper braided screening, covering approx. 85%
- Special PVC outer jacket grey, TM5 to DIN VDE 0281 part 1, HD 21.1.S2/A16
- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/EN 50265-2-1/IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air. These are designed as control and connecting cables to machines, tool machineries, conveyor belts and production lines. These cables have been tested according to DIN VDE 0207 and 0473 and found to be totally oil resistant. These cables are not effected to the chemical influences. Cables for moist and wet rooms, specially used for machines in breweries, bottling plants and car washing stations.

**Note** These cables may be allowed to move once installed provided that the cables are not mechanically stressed during movement. The interconnection of parts of machines used for manufacturing purposes including machine tools where some degree of protection against electromagnetic interference is required.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

### (H)05VVC4V5-K ((N)YSLYCYÖ-JZ)

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
13170 OZ	2 x 4	12,5	135	236	12
13171	3 G4	13,9	179	361	12
13172	4 G4	15,7	239	430	12
13173	5 G4	17,1	279	509	12
13175	7 G4	20,5	360	660	12
13178	12 G4	25,5	581	979	12
13179 OZ	2 x 6	14,6	206	296	10
13180	3 G6	15,7	250	420	10
13181	4 G6	17,3	318	579	10
13182	5 G6	19,5	406	719	10
13183	7 G6	23,1	505	1031	10

G = with green-yellow earth core  
X = without green-yellow earth core (OZ)

### Screened PVC control cable with oil resistant outer jacket

Part No.	No. cores x cross-sec. mm <sup>2</sup>	Outer $\varnothing$ ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-no. *)
13185	3 G10	19,9	370	655	8
13186	4 G10	22,0	517	894	8
13187	5 G10	24,6	704	927	8
13188	7 G10	29,5	818	1518	8
13190	3 G16	22,9	551	993	6
13191	4 G16	25,5	776	1340	6
13192	5 G16	28,4	1030	1626	6
13193	7 G16	33,9	1518	2080	6
13196	4 G25	31,6	1070	1692	4
13197	5 G25	35,1	1320	1972	4

#### \*) Note

AWG sizes are approximate equivalent values.  
The actual cross-section is in mm<sup>2</sup> – see page T 15.

PVC cables will be changed to lead free PVC successively.

# Explosion protection in lacquering plants

Installation of electrical apparatus in explosive atmospheres according to DIN VDE 0165



Laquering spraying system with lac-robot apparatus

Photo: R. Stahl GmbH

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