

H05VVC4V5-K (NYSLYCYÖ-JZ) flexible, number coded, oil resistant, EMC-preferred type



A



Technical data

- Spezial-PVC control cable with oil resistant outer sheath acc. to DIN VDE 0285-525-2-51 / DIN EN 50525-2-51 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 minutes
core/screen 2 kV, 5 minutes
- **Breakdown voltage** min. 4000 V
- **Coupling resistance**
at 30 MHz 250 Ohm/km
- **Insulation resistance**
min. 20 MOhm x km
- **Minimum bending radius**
flexing 10x cable Ø
fixed installation 5x cable Ø
- **Radiation resistance**
up to 80×10^6 cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of special PVC compound type T12 to DIN VDE 0207-363-3 / DIN EN 50363-3
- Core identification to DIN VDE 0293 black cores with continuous white numbering
- GN-YE conductor, 3 cores and above in the outer layer
- Cores stranded in layers with optimal lay-length
- Inner sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Tinned copper braided screening, covering approx. 85%
- Outer sheath of special PVC compound type TM5 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Sheath colour grey (RAL 7001)

Properties

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
- ### Tests
- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
 - Oil resistant to DIN EN 60811-404

Note

- G = with green-yellow conductor
x = without green-yellow conductor (OZ)
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- unscreened analogue type:
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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 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.

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.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No. cores x cross-sec. mm ²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm ²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
13951	2 x 0,5	7,7 - 9,6	41,0	92,0	20	13957	2 x 0,75	8,0 - 10,0	46,0	102,0	19
13060	3 G 0,5	8,0 - 10,0	45,0	109,0	20	13072	3 G 0,75	8,3 - 10,4	57,0	115,0	19
13061	4 G 0,5	8,5 - 10,7	54,0	126,0	20	13073	4 G 0,75	9,1 - 11,3	63,0	150,0	19
13062	5 G 0,5	9,3 - 11,6	66,0	156,0	20	13074	5 G 0,75	9,7 - 12,1	76,0	173,0	19
13063	6 G 0,5	9,9 - 12,4	73,0	176,0	20	13075	6 G 0,75	10,5 - 13,1	82,0	195,0	19
13064	7 G 0,5	10,8 - 13,5	79,0	192,0	20	13076	7 G 0,75	11,5 - 14,3	100,0	235,0	19
13952	8 G 0,5	11,7 - 14,5	82,0	211,0	20	13958	8 G 0,75	12,1 - 15,0	112,0	268,0	19
13065	9 G 0,5	12,8 - 15,8	94,0	230,0	20	13077	9 G 0,75	13,3 - 16,5	130,0	285,0	19
13066	12 G 0,5	13,3 - 16,5	137,0	280,0	20	13078	12 G 0,75	13,9 - 17,2	175,0	327,0	19
13953	14 G 0,5	13,4 - 16,6	142,0	302,0	20	13959	14 G 0,75	14,4 - 17,7	190,0	362,0	19
13067	18 G 0,5	15,1 - 18,6	156,0	384,0	20	13079	18 G 0,75	16,2 - 19,9	240,0	488,0	19
13068	25 G 0,5	17,7 - 21,7	250,0	556,0	20	13080	25 G 0,75	18,7 - 22,6	306,0	654,0	19
13954	27 G 0,5	18,0 - 22,1	255,0	599,0	20	13960	27 G 0,75	19,3 - 23,7	326,0	708,0	19
13069	34 G 0,5	20,1 - 24,7	316,0	634,0	20	13081	34 G 0,75	21,3 - 26,2	346,0	821,0	19
13955	36 G 0,5	20,1 - 24,7	320,0	620,0	20	13961	36 G 0,75	21,3 - 26,2	358,0	899,0	19
13129	41 G 0,5	21,7 - 26,6	348,0	770,0	20	13130	41 G 0,75	23,1 - 28,3	403,0	970,0	19
13070	50 G 0,5	24,0 - 29,3	407,0	970,0	20	13082	50 G 0,75	25,3 - 31,0	470,0	1160,0	19
13071	61 G 0,5	25,5 - 31,1	520,0	1072,0	20	13083	61 G 0,75	27,0 - 32,9	550,0	1402,0	19
13956	65 G 0,5	26,1 - 31,9	563,0	1198,0	20	13962	65 G 0,75	27,8 - 34,0	594,0	1504,0	19

Continuation ▶

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Part no.	No. cores x cross-sec. mm ²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
13963	2 x 1	8,2 - 10,3	54,0	114,0	18
13084	3 G 1	8,8 - 11,0	64,0	142,0	18
13085	4 G 1	9,4 - 11,7	76,0	175,0	18
13086	5 G 1	10,3 - 12,8	89,0	205,0	18
13087	6 G 1	11,0 - 13,6	101,0	236,0	18
13088	7 G 1	12,2 - 15,1	114,0	264,0	18
13964	8 G 1	13,1 - 16,2	130,0	301,0	18
13089	9 G 1	13,9 - 17,2	144,0	335,0	18
13090	12 G 1	14,7 - 18,1	186,0	420,0	18
13965	14 G 1	15,3 - 18,8	198,0	433,0	18
13091	18 G 1	16,9 - 20,8	284,0	561,0	18
13966	19 G 1	16,9 - 20,8	307,0	584,0	18
13092	25 G 1	19,8 - 24,2	387,0	766,0	18
13967	27 G 1	20,2 - 24,7	410,0	822,0	18
13093	34 G 1	22,5 - 27,6	500,0	996,0	18
13968	36 G 1	22,5 - 27,6	511,0	1001,0	18
13969	37 G 1	22,5 - 27,6	523,0	1018,0	18
13131	41 G 1	24,7 - 30,2	578,0	1155,0	18
13094	50 G 1	26,8 - 32,7	681,0	1300,0	18
13095	61 G 1	28,5 - 34,7	710,0	1500,0	18
13970	65 G 1	29,4 - 35,8	769,0	1510,0	18
13971	2 x 1,5	9,3 - 11,6	64,0	146,0	16
13096	3 G 1,5	9,7 - 12,1	82,0	176,0	16
13097	4 G 1,5	10,7 - 13,2	99,0	207,0	16
13098	5 G 1,5	11,8 - 14,7	123,0	235,0	16
13099	6 G 1,5	12,7 - 15,7	125,0	279,0	16
13100	7 G 1,5	14,1 - 17,4	148,0	314,0	16
13972	8 G 1,5	14,9 - 18,3	172,0	345,0	16
13101	9 G 1,5	16,0 - 19,7	187,0	380,0	16
13102	12 G 1,5	16,7 - 20,5	274,0	500,0	16

Part no.	No. cores x cross-sec. mm ²	Outer Ø min. - max. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
13973	14 G 1,5	17,6 - 21,6	294,0	560,0	16
13103	18 G 1,5	19,6 - 24,1	386,0	707,0	16
13974	19 G 1,5	19,6 - 24,1	394,0	723,0	16
13104	25 G 1,5	22,7 - 27,8	531,0	950,0	16
13975	27 G 1,5	23,4 - 28,6	546,0	1014,0	16
13105	32 G 1,5	25,4 - 31,1	638,0	1133,0	16
13106	34 G 1,5	26,6 - 32,5	671,0	1204,0	16
13976	36 G 1,5	26,6 - 32,5	700,0	1261,0	16
13977	37 G 1,5	26,6 - 32,5	720,0	1300,0	16
13132	41 G 1,5	28,5 - 34,8	840,0	1453,0	16
13107	50 G 1,5	31,2 - 38,0	997,0	1663,0	16
13108	61 G 1,5	32,7 - 39,9	1120,0	1852,0	16
13978	65 G 1,5	33,4 - 40,7	1197,0	1971,0	16
13985	2 x 2,5	10,7 - 13,3	110,0	190,0	14
13109	3 G 2,5	11,3 - 14,0	148,0	243,0	14
13110	4 G 2,5	12,6 - 15,5	169,0	280,0	14
13111	5 G 2,5	13,9 - 17,2	220,0	342,0	14
13112	7 G 2,5	16,5 - 20,3	284,0	439,0	14
13979	8 G 2,5	17,7 - 21,8	314,0	489,0	14
13113	12 G 2,5	19,9 - 24,4	470,0	760,0	14
13980	14 G 2,5	20,9 - 25,6	504,0	890,0	14
13114	18 G 2,5	23,3 - 28,5	572,0	1052,0	14
13115	25 G 2,5	27,4 - 33,5	740,0	1375,0	14
13981	27 G 2,5	28,2 - 34,5	971,0	1507,0	14
13116	34 G 2,5	31,5 - 38,5	1179,0	1892,0	14
13982	36 G 2,5	31,5 - 38,5	1268,0	1998,0	14
13983	41 G 2,5	33,5 - 40,8	1473,0	2286,0	14
13117	50 G 2,5	36,5 - 44,4	1660,0	2673,0	14
13118	61 G 2,5	38,8 - 47,2	1992,0	3085,0	14

Dimensions and specifications may be changed without prior notice. (RA01)



Suitable accessories can be found in Chapter X.

- Cable Gland - HELUTOP® HT-MS-EP4