

H05VVC4V5-K

EMC-preferred type, with inner sheath, oil resistant



TECHNICAL DATA

PVC control cable acc. to DIN VDE 0285-525-2-51 / DIN EN 50525-2-51, IEC 60227-74

Temperature range	flexible -5°C to +70°C fixed -40°C to +70°C
Nominal voltage	AC U ₀ /U 300/500 V
Test voltage core/core	2000 V
Test voltage core/screen	2000 V
Breakdown voltage	4000 V
Coupling resistance	at 30 MHz, max. 250 Ohm/km
Minimum bending radius	flexible 10x Outer-Ø fixed 5x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: PVC acc. to DIN VDE 0207-363-3 / DIN EN 50363-3 (compound type T12)
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores, G = with protective conductor GN-YE, in the outer layer, x = without protective conductor (OZ)
- Cores stranded in layers with optimal lay lengths
- Inner sheath: PVC acc. to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1 (compound type TM2)
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: oil-resistant special PVC acc. to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1 (compound type TM5)
- Sheath colour: grey (RAL 7001)

PROPERTIES

- resistant to: oil
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404
- certifications and approvals:
HAR
EAC

APPLICATION

Used for flexible applications involving medium mechanical stress with free movement, without tensile stress and without forced motion control in dry, damp and wet rooms, however, not suitable for outdoor use as a connection cable in machine and machine tool construction, assembly lines, conveyers and production lines. Even various chemical compounds cannot harm the cable. As a cable suitable for damp rooms, it is also preferred for the operation of machines in breweries, bottling plants and car washes. For interference-free data signal transmission in measurement and control technology in case electromagnetic screening is required. The cables may engage in flexible movement after installation, provided the cables are not mechanically overloaded during the movements. These shielded cables are not designed for permanent bending stresses. EMC= Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
13951	2 x 0.5	20	7.7 - 9.6	41.0	92.0
13060	3 G 0.5	20	8.0 - 10.0	45.0	109.0
13061	4 G 0.5	20	8.5 - 10.7	54.0	126.0
13062	5 G 0.5	20	9.3 - 11.6	66.0	156.0
13063	6 G 0.5	20	9.9 - 12.4	73.0	176.0
13064	7 G 0.5	20	10.8 - 13.5	79.0	192.0
13952	8 G 0.5	20	11.7 - 14.5	82.0	211.0
13065	9 G 0.5	20	12.8 - 15.8	94.0	230.0
13066	12 G 0.5	20	13.3 - 16.5	137.0	280.0
13953	14 G 0.5	20	13.4 - 16.6	142.0	302.0
13067	18 G 0.5	20	15.1 - 18.6	156.0	384.0
13068	25 G 0.5	20	17.7 - 21.7	250.0	556.0
13954	27 G 0.5	20	18.0 - 22.1	255.0	599.0
13069	34 G 0.5	20	20.1 - 24.7	316.0	634.0
13955	36 G 0.5	20	20.1 - 24.7	320.0	620.0

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
13129	41 G 0.5	20	21.7 - 26.6	348.0	770.0
13070	50 G 0.5	20	24.0 - 29.3	407.0	970.0
13957	2 x 0.75	19	8.0 - 10.0	46.0	102.0
13072	3 G 0.75	19	8.3 - 10.4	57.0	115.0
13073	4 G 0.75	19	9.1 - 11.3	63.0	150.0
13074	5 G 0.75	19	9.7 - 12.1	76.0	173.0
13075	6 G 0.75	19	10.5 - 13.1	82.0	195.0
13076	7 G 0.75	19	11.5 - 14.3	100.0	235.0
13958	8 G 0.75	19	12.1 - 15.0	112.0	268.0
13077	9 G 0.75	19	13.3 - 16.5	130.0	285.0
13078	12 G 0.75	19	13.9 - 17.2	175.0	327.0
13959	14 G 0.75	19	14.4 - 17.7	190.0	362.0
13079	18 G 0.75	19	16.2 - 19.9	240.0	488.0
13080	25 G 0.75	19	18.7 - 22.6	306.0	654.0
13960	27 G 0.75	19	19.3 - 23.7	326.0	708.0

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13081	34 G 0.75	19	21.3 - 26.2	346.0	821.0	13972	8 G 1.5	16	14.9 - 18.3	172.0	345.0
13961	36 G 0.75	19	21.3 - 26.2	358.0	899.0	13101	9 G 1.5	16	16.0 - 19.7	187.0	380.0
13130	41 G 0.75	19	23.1 - 28.3	403.0	970.0	13102	12 G 1.5	16	16.7 - 20.5	274.0	500.0
13082	50 G 0.75	19	25.3 - 31.0	470.0	1160.0	13973	14 G 1.5	16	17.6 - 21.6	294.0	560.0
13963	2 x 1	18	8.2 - 10.3	54.0	114.0	13103	18 G 1.5	16	19.6 - 24.1	386.0	707.0
13084	3 G 1	18	8.8 - 11.0	64.0	142.0	13974	19 G 1.5	16	19.6 - 24.1	394.0	723.0
13085	4 G 1	18	9.4 - 11.7	76.0	175.0	13104	25 G 1.5	16	22.7 - 27.8	531.0	950.0
13086	5 G 1	18	10.3 - 12.8	89.0	205.0	13975	27 G 1.5	16	23.4 - 28.6	546.0	1014.0
13087	6 G 1	18	11.0 - 13.6	101.0	236.0	13105	32 G 1.5	16	25.4 - 31.1	638.0	1133.0
13088	7 G 1	18	12.2 - 15.1	114.0	264.0	13106	34 G 1.5	16	26.6 - 32.5	671.0	1204.0
13964	8 G 1	18	13.1 - 16.2	130.0	301.0	13976	36 G 1.5	16	26.6 - 32.5	700.0	1261.0
13089	9 G 1	18	13.9 - 17.2	144.0	335.0	13977	37 G 1.5	16	26.6 - 32.5	720.0	1300.0
13090	12 G 1	18	14.7 - 18.1	186.0	420.0	13132	41 G 1.5	16	28.5 - 34.8	840.0	1453.0
13965	14 G 1	18	15.3 - 18.8	198.0	433.0	13107	50 G 1.5	16	31.2 - 38.0	997.0	1663.0
13091	18 G 1	18	16.9 - 20.8	284.0	561.0	13985	2 x 2.5	14	10.7 - 13.3	110.0	190.0
13966	19 G 1	18	16.9 - 20.8	307.0	584.0	13109	3 G 2.5	14	11.3 - 14.0	148.0	243.0
13092	25 G 1	18	19.8 - 24.2	387.0	766.0	13110	4 G 2.5	14	12.6 - 15.5	169.0	280.0
13967	27 G 1	18	20.2 - 24.7	410.0	822.0	13111	5 G 2.5	14	13.9 - 17.2	220.0	342.0
13093	34 G 1	18	22.5 - 27.6	500.0	996.0	13112	7 G 2.5	14	16.5 - 20.3	284.0	439.0
13968	36 G 1	18	22.5 - 27.6	511.0	1001.0	13979	8 G 2.5	14	17.7 - 21.8	314.0	489.0
13969	37 G 1	18	22.5 - 27.6	523.0	1018.0	13113	12 G 2.5	14	19.9 - 24.4	470.0	760.0
13131	41 G 1	18	24.7 - 30.2	578.0	1155.0	13980	14 G 2.5	14	20.9 - 25.6	504.0	890.0
13094	50 G 1	18	26.8 - 32.7	681.0	1300.0	13114	18 G 2.5	14	23.3 - 28.5	572.0	1052.0
13971	2 x 1.5	16	9.3 - 11.6	64.0	146.0	13115	25 G 2.5	14	27.4 - 33.5	740.0	1375.0
13096	3 G 1.5	16	9.7 - 12.1	82.0	176.0	13981	27 G 2.5	14	28.2 - 34.5	971.0	1507.0
13097	4 G 1.5	16	10.7 - 13.2	99.0	207.0	13116	34 G 2.5	14	31.5 - 38.5	1179.0	1892.0
13098	5 G 1.5	16	11.8 - 14.7	123.0	235.0	13982	36 G 2.5	14	31.5 - 38.5	1268.0	1998.0
13099	6 G 1.5	16	12.7 - 15.7	125.0	279.0	13983	41 G 2.5	14	33.5 - 40.8	1473.0	2286.0
13100	7 G 1.5	16	14.1 - 17.4	148.0	314.0	13117	50 G 2.5	14	36.5 - 44.4	1660.0	2673.0