

H05VVC4V5-K

Flexible control cable PVC insulated, with inner sheath,
Cu screen and external oil resistant PVC sheath

DIN VDE mark: **NYSLYCY6-JZ / -OZ**
standards: HRN HD 21.12 S1, 21.13 S1
DIN VDE 0281 part 13
IEC 60227-73

Control cables

H - harmonized cable (conforming with European standards)
05 - $U_0/U = 300/500$ V
V - PVC insulation
V - PVC sheath
C4 - copper braid screen over stranded cores
V5 - oil resistant PVC sheath
K - fine wired for cables intended for fixed laying, class 5

"x" - without green-yellow core
"G" - with green-yellow core



Technical data

Temperature range:

- during installation and application with bending: -5 °C up to +50 °C
- fixed installed: -30 °C up to +70 °C

Nominal voltage: $U_0/U = 300/500$ V

Test voltage: min. 2000 V

Insulation resistance: min. 20 M Ω x km

Minimal inner bending radius: (D = external cable diameter)

- fixed installed: 6D
- at application with bending: 20D

Behaviour in fire: Flame retardant (self-extinguishing) cable acc. to **IEC 60332-1** / EN 60332-1 (earlier EN 50265-2-1) / VDE 0482-332-1 (earlier VDE 0482-265-2-1, also DIN VDE 0472 part 804 test method B)

Construction

1. **Conductor:** bare copper conductor, fine wired stranded, class 5 acc. to IEC 60228 / HD 383 / DIN VDE 0295
2. **Insulation:** PVC compound T12 acc. to HD 21.1 / DIN VDE 0281
 - with green-yellow core, always in external layer (≥ 3 cores) or without green-yellow core
 - core marking: (acc. to DIN VDE 0293) black numbered
 - cores stranded in layers
3. **Inner sheath:** PVC compound TM2 acc. to HD 21.1 / DIN VDE 0281
4. **Screen:** braid of tinned copper wires of 0,16 mm diameter, with min 75% coverage
5. **External sheath:** PVC compound TM5 acc. to HD 21.1 / DIN VDE 0281, **oil resistant**
 - **sheath colour:** grey (RAL 7001)

Application

Flexible control cable used for signalling and control of static or mobile devices in industry, electric plants or offices. Screen of braided copper wires serves as protection against electromagnetic impacts and control disturbances. Resistant to oils and medium mechanical loads, used for fixed or limitedly mobile installations (not permanently mobile) without tensile load. Installed in dry or damp premises, outdoor application only under protection against UV-irradiation. Not intended for laying in ground or water.

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Conductor cross-section	Construction of individual conductor (No. of wires x diameter)	Insulation thickness	Specific. el. resistance of insulation at 70 °C	Conductor resistance at 20°C
nominal mm ²	nominal n x mm	nominal mm	min. MQ x km	max. Ω/km
0,5	16 x 0,20		0,013	39
0,75	24 x 0,20		0,011	26
1	32 x 0,20		0,01	19,5
1,5	30 x 0,25		0,009	13,3
2,5	50 x 0,25		0,008	7,98

Dimensions - number of cores x conductor cross-section	External diameter	Cu weight	Cable weight	Packing*
nominal N x mm ²	approx. mm	kg/km	approx. kg/km	
2 x 0,5	8	32	95	CUT
3 G 0,5	8,4	42	100	CUT
4 G 0,5	9,1	50	120	CUT
5 G 0,5	10,2	55	140	CUT
7 G 0,5	11,3	75	165	CUT
10 G 0,5	13,5	105	245	CUT
12 G 0,5	13,8	125	285	CUT
16 G 0,5	15,4	152	350	CUT
18 G 0,5	16,8	165	400	CUT
21 G 0,5	18,1	180	440	CUT
24 G 0,5	19,4	190	480	CUT
25 G 0,5	19,7	196	505	CUT
30 G 0,5	20,5	230	550	CUT
34 G 0,5	21,5	245	625	CUT
36 G 0,5	22	260	650	CUT
40 G 0,5	23,4	340	700	CUT
42 G 0,5	23,8	360	730	CUT
48 G 0,5	25	390	840	CUT
50 G 0,5	25,7	400	890	CUT
52 G 0,5	26,2	428	920	CUT
60 G 0,5	27,2	480	1050	CUT
61 G 0,5	30,1	530	1072	CUT
2 x 0,75	8,4	35	100	CUT
3 G 0,75	8,7	50	110	CUT
4 G 0,75	9,9	60	145	CUT
5 G 0,75	10,6	75	170	CUT
7 G 0,75	11,8	94	215	CUT
10 G 0,75	14,2	125	300	CUT
12 G 0,75	14,8	155	305	CUT
16 G 0,75	16,2	185	400	CUT
18 G 0,75	17,8	210	455	CUT
21 G 0,75	19,2	245	500	CUT
24 G 0,75	20,6	270	590	CUT
25 G 0,75	21	280	610	CUT
30 G 0,75	22,1	325	715	CUT
34 G 0,75	23,4	360	805	CUT
36 G 0,75	24	385	830	CUT
40 G 0,75	25	435	890	CUT
42 G 0,75	25,6	450	910	CUT
48 G 0,75	26,7	505	1090	CUT
50 G 0,75	27,4	540	1150	CUT
52 G 0,75	27,8	560	1200	CUT
60 G 0,75	30	620	1350	CUT
61 G 0,75	32,4	679	1402	CUT
2 x 1	8,8	52	125	CUT
3 G 1	9,6	60	135	CUT
4 G 1	10,8	75	165	CUT
5 G 1	11,5	85	195	CUT
7 G 1	12,4	115	230	CUT
10 G 1	14,9	165	335	CUT
12 G 1	16,6	195	405	CUT
16 G 1	18,1	235	515	CUT
18 G 1	19,4	265	590	CUT

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Dimensions - number of cores x conductor cross-section	External diameter	Cu weight	Cable weight	Packing*
nominal N x mm ²	approx. mm	kg/km	approx. kg/km	
21 G 1	20,5	305	650	CUT
24 G 1	22,4	325	710	CUT
25 G 1	22,8	340	730	CUT
30 G 1	23,5	395	850	CUT
34 G 1	25,8	445	945	CUT
36 G 1	26,2	470	1020	CUT
40 G 1	27,6	540	1090	CUT
42 G 1	28	570	1130	CUT
48 G 1	29	630	1240	CUT
50 G 1	29,7	660	1270	CUT
52 G 1	30	690	1350	CUT
60 G 1	31,8	830	1500	CUT
61 G 1	34,3	883	1694	CUT
2 x 1,5	9,6	57	145	CUT
3 G 1,5	10	68	170	CUT
4 G 1,5	11	82	205	CUT
5 G 1,5	12,2	100	245	CUT
7 G 1,5	13,4	138	325	CUT
10 G 1,5	16,4	173	415	CUT
12 G 1,5	17	216	485	CUT
16 G 1,5	18,8	275	600	CUT
18 G 1,5	19,8	311	665	CUT
21 G 1,5	21,1	348	765	CUT
24 G 1,5	23,4	395	880	CUT
25 G 1,5	23,4	408	900	CUT
30 G 1,5	24,8	489	1060	CUT
34 G 1,5	27	552	1215	CUT
36 G 1,5	27	602	1260	CUT
40 G 1,5	27,9	649	1355	CUT
48 G 1,5	30,8	765	1605	CUT
50 G 1,5	31,2	805	1655	CUT
52 G 1,5	32	845	1705	CUT
60 G 1,5	33,2	834	1905	CUT
2 x 2,5	11,5	81	200	CUT
3 G 2,5	12,1	115	240	CUT
4 G 2,5	13,2	140	285	CUT
5 G 2,5	14,2	185	330	CUT
7 G 2,5	15,8	240	440	CUT
10 G 2,5	19	325	600	CUT
12 G 2,5	21	390	720	CUT
14 G 2,5		415	890	CUT
16 G 2,5	23,5	480	940	CUT
18 G 2,5	25,4	555	1000	CUT
21 G 2,5	27	650	1200	CUT
24 G 2,5	29,4	750	1340	CUT
25 G 2,5	30	790	1380	CUT
30 G 2,5	31,5	820	1610	CUT
34 G 2,5	33,4	990	1650	CUT
36 G 2,5	34	1080	1775	CUT
40 G 2,5	35,6	1280	1930	CUT
42 G 2,5	36,2	1400	2050	CUT

*) Packing:

CUT = cable in different lengths on drum or reel, possible cutting at required length