

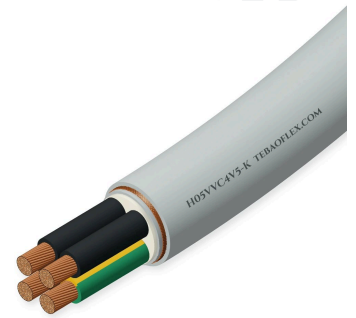


Control & signal cables

H05VVC4V5-K

Screened Oil-Resistant Control Cable

Harmonised EN 50525-2-51 300/500 V copper-screened oil-resistant TM5 PVC control cable



EN 50525-2-51 <HAR>

Tinned-Cu Braid (C4)

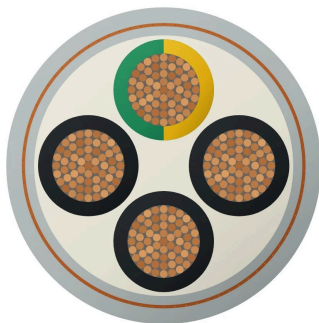
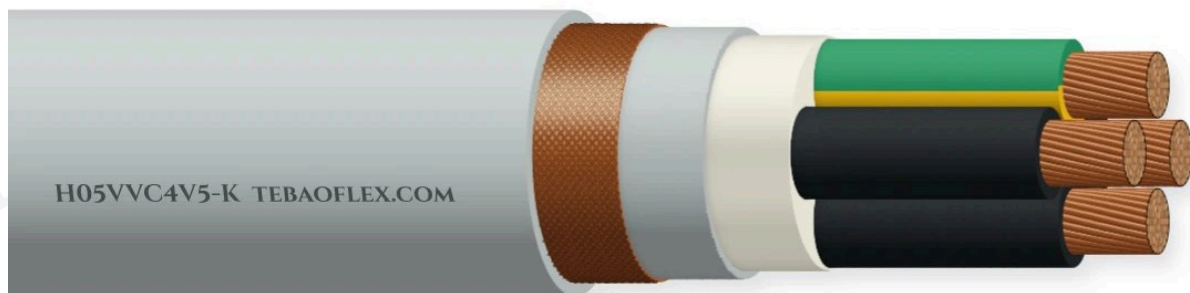
TM5 Oil-Resistant PVC (V5)

Application

Harmonised European 300/500 V EMC-screened and oil-resistant control cable to EN 50525-2-51 ('H05VVC4V5-K', '<HAR>') with Class 5 copper conductors (0.5–2.5 mm²), numbered TI2 PVC cores, extruded inner sheath, tinned-copper braid ('C4') and TM5 outer sheath.

Typical uses: CNC machining centres & multi-axis lathes, Automotive engine & transmission machining lines, Hydraulic presses & metalforming automation, Industrial washing, cooling & filtration units, EN 60204-1 machinery OEM export equipment

Construction



Cross-section, not to scale

1	Class 5 flexible copper conductor	EN 60228 Class 5
2	TI2 PVC core insulation (V)	EN 50363-3 TI2 · EN 50334
3	Extruded PVC inner sheath (V)	EN 50525-2-51
4	Tinned-copper braid screen (C4)	EN 50525-2-51 · EN 55011 EMC
5	TM5 oil-resistant PVC sheath (V5)	EN 50363-4-1 TM5 · EN 60811-404

Technical data

Typical values

Rated voltage U0/U	300/500 V AC	AC test voltage (50 Hz)	2000 V AC (core/core) · 2000 V AC (core/screen)
Transfer impedance (30 MHz)	≤ 250 mΩ/m via tinned-copper braid (C4)	Insulation resistance (20 °C)	≥ 20 MΩ·km
Temperature, flexing	−5 °C to +70 °C	Temperature, fixed	−40 °C to +70 °C
Max. conductor temperature	+70 °C continuous · +150 °C short-circuit	Min. bending radius, fixed	6 × overall diameter
Min. bending radius, flexing	20 × overall diameter	Extruded inner sheath	Second 'V' is a full extruded PVC inner sheath (not just a plastic tape) for superior roundness in EMC glands
Mineral oil resistance	EN 60811-404 immersion test in IRM 902 oil (TM5 outer sheath)	Flame retardance	EN 60332-1-2 / IEC 60332-1-2 vertical flame retardant · CPR Eca
EMC compliance	Meets EN 55011 / CISPR 11 & EN 61000-6-2 industrial noise immunity	Standards	EN 50525-2-51 (formerly HD 21.13 S1) / DIN VDE 0285-525-2-51
Standard packing	Heat-treated ISPM-15 timber drums with sealed cable ends		

Sizes

32 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
0.50 mm ² H05VVC4V5-K Screened Oil-Resistant Control 6 sizes							
☐ H05VVC4V5-K 3G0.5	3×0.5	20	7.0	7.6	36	88	46
☐ H05VVC4V5-K 4G0.5	4×0.5	20	7.5	8.2	43	104	49
☐ H05VVC4V5-K 7G0.5	7×0.5	20	9.0	9.8	65	152	59
☐ H05VVC4V5-K 12G0.5	12×0.5	20	11.2	12.2	99	234	73
☐ H05VVC4V5-K 18G0.5	18×0.5	20	13.0	14.1	138	322	85
☐ H05VVC4V5-K 25G0.5	25×0.5	20	15.5	16.8	188	438	101
0.75 mm ² H05VVC4V5-K Screened Oil-Resistant Control 7 sizes							
☐ H05VVC4V5-K 3G0.75	3×0.75	18	7.5	8.1	45	102	49
☐ H05VVC4V5-K 4G0.75	4×0.75	18	8.0	8.7	55	122	52
☐ H05VVC4V5-K 5G0.75	5×0.75	18	8.7	9.5	66	145	57
☐ H05VVC4V5-K 7G0.75	7×0.75	18	9.9	10.8	86	188	65
☐ H05VVC4V5-K 12G0.75	12×0.75	18	12.2	13.3	136	290	80
☐ H05VVC4V5-K 18G0.75	18×0.75	18	14.3	15.5	194	405	93
☐ H05VVC4V5-K 25G0.75	25×0.75	18	16.7	18.2	260	545	109
1.00 mm ² H05VVC4V5-K Screened Oil-Resistant Control 7 sizes							
☐ H05VVC4V5-K 3G1.0	3×1.0	17	7.8	8.5	53	116	51
☐ H05VVC4V5-K 4G1.0	4×1.0	17	8.5	9.2	66	140	55
☐ H05VVC4V5-K 5G1.0	5×1.0	17	9.2	10.0	79	168	60
☐ H05VVC4V5-K 7G1.0	7×1.0	17	10.5	11.4	106	218	68
☐ H05VVC4V5-K 12G1.0	12×1.0	17	13.0	14.1	168	340	85
☐ H05VVC4V5-K 18G1.0	18×1.0	17	15.2	16.5	240	478	99
☐ H05VVC4V5-K 25G1.0	25×1.0	17	17.9	19.5	326	645	117

Order designation	Cores × mm ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
1.50 mm ² H05VVC4V5-K Screened Oil-Resistant Control 7 sizes							
☐ H05VVC4V5-K 3G1.5	3×1.5	16	8.7	9.5	70	148	57
☐ H05VVC4V5-K 4G1.5	4×1.5	16	9.5	10.3	89	180	62
☐ H05VVC4V5-K 5G1.5	5×1.5	16	10.4	11.3	108	216	68
☐ H05VVC4V5-K 7G1.5	7×1.5	16	11.9	12.9	146	286	77
☐ H05VVC4V5-K 12G1.5	12×1.5	16	14.8	16.1	238	452	97
☐ H05VVC4V5-K 18G1.5	18×1.5	16	17.3	18.8	342	635	113
☐ H05VVC4V5-K 25G1.5	25×1.5	16	20.5	22.3	462	860	134
2.50 mm ² H05VVC4V5-K Screened Oil-Resistant Control 5 sizes							
☐ H05VVC4V5-K 3G2.5	3×2.5	14	10.2	11.1	105	208	67
☐ H05VVC4V5-K 4G2.5	4×2.5	14	11.1	12.1	134	256	73
☐ H05VVC4V5-K 5G2.5	5×2.5	14	12.3	13.4	166	312	80
☐ H05VVC4V5-K 7G2.5	7×2.5	14	14.1	15.3	226	415	92
☐ H05VVC4V5-K 12G2.5	12×2.5	14	17.7	19.2	368	662	115

– Dimensions and weights are typical values per EN 50525-2-51 (DIN VDE 0285-525-2-51). Minimum fixed bending radius shown is 6 × OD.

Electrical & current ratings

5 sizes

Cross-section mm ²	AWG ≈	Max. DC resistance 20 °C, Ω/km	Single pair/core 30 °C, A	Multi-core bundle 30 °C, A
0.5	20	39	9.0	6.0
0.75	18	26	12.0	10.0
1	17	19.5	15.0	13.0
1.5	16	13.3	23.0	18.0
2.5	14	7.98	30.0	25.0

– Current ratings at 30 °C ambient in free air per DIN VDE 0298-4 / DIN VDE 0891-1. Apply grouping derating factors for multi-core control and signal bundles.

Standards and approvals

✓ EN 50525-2-51 (DIN VDE 0285-525-2-51)

✓ CE · RoHS 2 (2011/65/EU) · REACH

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/h05vvc4v5-k-screened-oil-resistant-control-cable



Typical values for this cable type, based on EN 50525-2-51 (DIN VDE 0285-525-2-51). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.