



**E<sub>ca</sub>**

## APPLICATION

Flexitel® H05VV5-F is a cable for signalling and control systems. It is especially suitable for connecting industrial equipment and machine tools. Due to its properties, it is recommended for robotics and light mobile services. Its special vinylic outer sheath compound is particularly resistant to mineral oils and other chemical agents. It can be installed in either dry or humid environments.

- Industrial use.
- Mobile use.
- Robotics.

## CONSTRUCTION

### Conductor

Electrolytic annealed copper conductor, class 5 (flexible) according to EN 60228 and IEC 60228.

### Insulation

Flexible PVC type T12 according to EN 50363-3. The standard identification of insulated conductors, according to EN 50334 and HD 308 is the following:

- 2 x Black numbered
- 3 or more Black numbered + Green/Yellow




### Outer sheath

Flexible PVC outer sheath, type TM5 according to EN 50363-4-1. Grey colour. Oil resistant.

## CHARACTERISTICS

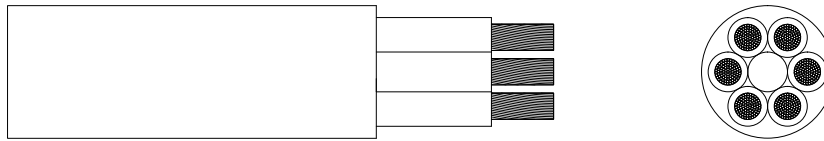
- Electrical performance**  
Low voltage: 300/500 V.
- Thermal performance**  
Maximum service temperature: 60°C.  
Maximum short-circuit temperature: 150°C (max. 5 s).  
Minimum service temperature: 5°C
- Fire performance**  
Flame non-propagation according to EN 60332-1 / IEC 60332-1.  
Reaction to fire CPR: E<sub>ca</sub>, according to EN 50575.
- Mechanical performance**  
Minimum bending radius:  
3 x cable diameter < 12 mm.  
4 x cable diameter ≥ 12 mm.  
Impact resistance: AG2 Medium severity.
- Environmental performance**  
Chemical & Oil resistance: excellent.  
Grease & mineral oils resistance: excellent.  
Water resistance: AD5 Jets.
- Installation conditions**  
Open Air.  
In conduit.

## STANDARDS / COMPLIANCE

-  **According to**  
EN 50525-2-51 / IEC 60227
-  **Standards and approvals**  
HAR / AENOR / RoHS / CE
-  **CPR (Construction Products Regulation)**  
E<sub>ca</sub>



### DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-section (mm <sup>2</sup> )	Diameter (mm)	Weight (kg/km)	Open air (A) <sup>1</sup>	Voltage drop (V/A · km) <sup>2</sup>
2 x 0,75	6,2	50	6	60,3
3 G 0,75	6,5	60	6	60,3
4 G 0,75	7,0	75	6	60,3
5 G 0,75	8,0	95	6	60,3
7 G 0,75	9,6	125	6	60,3
8 G 0,75	9,6	135	6	60,3
12 G 0,75	11,3	190	6	60,3
18 G 0,75	13,8	280	6	60,3
27 G 0,75	16,5	395	6	60,3
36 G 0,75	19,3	510	6	60,3
2 x 1	6,3	55	10	45,2
3 G 1	6,8	70	10	45,2
4 G 1	7,6	90	10	45,2
5 G 1	8,3	105	10	45,2
6 G 1	9,0	125	10	45,2
7 G 1	10,1	145	10	45,2
8 G 1	10,1	160	10	45,2
10 G 1	11,2	195	10	45,2
12 G 1	12,1	225	10	45,2
14 G 1	12,6	265	10	45,2
16 G 1	14	305	10	45,2
18 G 1	14,8	335	10	45,2
24 G 1	16,2	420	10	45,2
27 G 1	17,6	470	10	45,2
30 G 1	17,9	510	10	45,2
33 G 1	18,8	565	10	45,2
36 G 1	19,9	605	10	45,2
44 G 1	22,6	740	10	45,2
52 G 1	23,6	870	10	45,2
60 G 1	25,5	995	10	45,2
2 x 1,5	7,1	75	16	30,9
3 G 1,5	8,0	100	16	30,9
4 G 1,5	8,9	125	16	30,9
5 G 1,5	10,0	155	16	30,9
6 G 1,5	10,7	180	16	30,9
7 G 1,5	11,9	205	16	30,9
8 G 1,5	11,9	225	16	30,9
10 G 1,5	13,1	275	16	30,9
12 G 1,5	13,8	315	16	30,9
14 G 1,5	15,1	365	16	30,9
16 G 1,5	16,3	425	16	30,9
18 G 1,5	17	465	16	30,9
24 G 1,5	19,6	610	16	30,9
27 G 1,5	20,8	670	16	30,9
30 G 1,5	21,7	730	16	30,9
33 G 1,5	22,7	800	16	30,9

# FLEXTEL® 140

## H05VV5-F

Cross-section (mm <sup>2</sup> )	Diameter (mm)	Weight (kg/km)	Open air (A) <sup>1</sup>	Voltage drop (V/A · km) <sup>2</sup>
36 G 1,5	23,3	875	16	30,9
44 G 1,5	26	1.060	16	30,9
52 G 1,5	28,1	1.240	16	30,9
60 G 1,5	29,7	1.420	16	30,9
2 x 2,5	9,1	120	25	18,5
3 G 2,5	9,6	145	25	18,5
4 G 2,5	10,8	185	25	18,5
5 G 2,5	12	230	25	18,5
6 G 2,5	12,8	265	25	18,5
7 G 2,5	13,9	305	25	18,5
8 G 2,5	14,3	345	25	18,5
10 G 2,5	15,7	415	25	18,5
12 G 2,5	16,8	480	25	18,5
14 G 2,5	18,5	560	25	18,5
16 G 2,5	19,7	650	25	18,5
18 G 2,5	20,9	720	25	18,5
24 G 2,5	23,5	925	25	18,5
27 G 2,5	25	1.025	25	18,5
30 G 2,5	26,3	1.120	25	18,5
33 G 2,5	27,4	1.235	25	18,5
36 G 2,5	28,7	1.340	25	18,5
44 G 2,5	33,2	1.630	25	18,5
52 G 2,5	34,6	1.900	25	18,5
60 G 2,5	37,1	2.215	25	18,5

<sup>1</sup> Reference for one cable with adequate ventilation according to EN 50565-1 in open air at 30°C ambient temperature. For all cables it is supposed a single-phase circuit where not all conductors are fully charged.

<sup>2</sup> At 60°C conductor temperature and  $\cos \varphi = 1$ .