

PVC-flat-CY screened, EMC-preferred type



HELUKABEL PVC-flach-CY 5x4x0,5 QMM / 27101 300/500 V 001042630



Technical data

- Special PVC-flat cable, screened, adapted to DIN VDE 0283 part 2
- **Temperature range**
flexing -5°C to +70°C
fixed installation -40°C to +80°C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 3000 V
- **Breakdown voltage**
min. 6000 V
- **Minimum bending radius**
15x cable thickness
- **Radiation resistance**
up to 80×10^6 cJ/kg (up to 80 Mrad)

Cable construction

- Bare copper, fine wire conductors according to DIN VDE 0295 and IEC 60228 cl. 5, BS 6360 cl. 5
- Special PVC insulation
- Core identification see below
- Cores screened individually or in bunches
- Cores laying parallel
- Copper screened braiding, approx. 85% coverage
- Special PVC outer jacket black (RAL 9005)

Properties

- Extensively oil resistant
- Extremely small bending radius
- High flexibility
- Minimum waste of space
- Packeting possibility
- The high degree of screening density assures disturbance-free transmission of all signal and impulses
- PVC self-extinguishing and flameretardant according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

- G = with green-yellow earth core;
x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

PVC screened flat cables are used mainly as trailing cable for crane installations, floor conveyer systems and shelf control units.

Installation notes

Cables reels with flat cables must be transported in standing position on the flange. A bending flexibility can be achieved on a plane surface. For this purpose, the corresponding fitting instructions should be followed.

- Put the cable trolley on the guiding rail or upon carrier beam and push them together at the starting point. The distance between the bedding surface of two cable trolleys must be wider than the double thickness of a cable-packet.
- During the packeting performance, it must be started with the smaller cross-section which lays on the bedding surface and will be builded successively so that the biggest cross-section is laying on the top.
- Further, be careful of a symmetrical load distribution.
- In case of multicore flat cables with small cross-section, smaller than 2,5 mm², is very critical due to its low tensile stress. In such case, you should add 10% reserve wire for calculation.

EMC = Electromagnetic compatibility

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

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm ²	core marking	Outer dimension ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
27100	5 G 0,5	Colour coded, with earth core	21,0 x 3,4	64,0	92,0	20
27101	5 x 4 x 0,5	Colour coded	37,4 x 7,2	175,0	280,0	20
27102	8 x 7 x 0,5	Cont, white numbering	68,6 x 11,7	480,0	650,0	20
27090	4 G 0,75	Colour coded, with earth core	15,0 x 5,0	70,0	147,0	18
27103	4 x 4 x 1	Colour coded	33,5 x 11,0	310,0	350,0	17
27091	4 G 1,5	Colour coded, with earth core	18,7 x 5,9	116,0	200,0	16
27092	8 G 1,5	Cont, white numbering, with earth core	35,6 x 5,9	217,0	415,0	16
27093	12 G 1,5	Cont, white numbering, with earth core	52,1 x 5,9	266,0	585,0	16
27094	4 G 2,5	Colour coded, with earth core	21,0 x 6,9	170,0	285,0	14
27104	6 G 2,5	Cont, white numbering, with earth core	37,4 x 7,2	240,0	320,0	14
27095	4 G 4	Colour coded, with earth core	24,5 x 7,7	225,0	400,0	12
27096	4 G 6	Colour coded, with earth core	30,1 x 9,2	328,0	500,0	10
27097	4 G 10	Colour coded, with earth core	35,8 x 10,5	525,0	840,0	8
27098	4 G 16	Colour coded, with earth core	41,3 x 12,6	788,0	1246,0	6
27099	4 G 25	Colour coded, with earth core	48,4 x 14,4	1170,0	1780,0	4

Dimensions and specifications may be changed without prior notice.