

# F-CY-JZ / F-CY-OZ / F-DY-OZ

EMC-preferred type



## TECHNICAL DATA

PVC control and connection cable in alignment with DIN VDE 0285-525-2-51 / DIN EN 50525-2-51

<b>Temperature range</b>	flexible -10°C to +80°C fixed -40°C to +80°C
<b>Nominal voltage</b>	AC U <sub>0</sub> /U 300/500 V
<b>Test voltage core/core</b>	4000 V
<b>Test voltage core/screen</b>	2000 V
<b>Breakdown voltage</b>	8000 V
<b>Mutual capacitance core/core</b>	at 800 Hz 0.5 - 2.5 mm <sup>2</sup> : approx. 150 pF/m
<b>Mutual capacitance core/screen</b>	at 800 Hz 0.5 - 2.5 mm <sup>2</sup> : approx. 270 pF/m
<b>Coupling resistance</b>	at 30 MHz, approx. 250 Ohm/km
<b>Minimum bending radius</b>	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, compound type Z 7225
- 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
- Foil wrapping
- Screen:
  - 1 core(s): helically wound tinned copper wires, approx. coverage 85 %
  - 2 - 100 core(s): braided screen of tinned copper wires, approx. coverage 85 %
- Outer sheath: PVC acc. to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1 (compound type TM2)

### F-DY-OZ, helically wound tinned copper wires

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
16531	1 x 0.5	20	4.0	15.0	41.0
16557	1 x 0.75	19	4.3	19.0	44.0
16050	1 x 1	18	4.4	21.0	47.0

### F-CY-JZ / F-CY-OZ, braided screen of tinned copper wires

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
16320	2 x 0.5	20	5.7	35.0	45.0

- Sheath colour: grey (RAL 7001)
- Length marking: in metres

## PROPERTIES

- largely resistant to: oil, for details, see "Technical Information"
- 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
- certifications and approvals:
  - 2 - 100 core(s): EAC
  - 2 - 100 core(s): VDE-Reg.-No. 7034, valid for temperature range up to +70°C

## APPLICATION

For flexible use with free movement without tensile stress or forced movements in dry, moist and wet rooms but not outside; to be used as control and connecting cable in control and regulation technology, in the tool and machine building industry, in computer systems, as well as a signal cable in the electronic industry. A stabilizing foil separator between wire bound and braid reduces the outer diameter essentially and allows for smaller bending radius as well as lower weights. The disturbance free transmission of signals and impulses is ensured due to the high degree of screening. 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 (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only
- please note "cleanroom qualification" in your order

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
16074	1 x 1.5	16	4.7	27.0	70.0
16097	1 x 2.5	14	5.5	39.0	50.0

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
16321	3 G 0.5	20	6.0	42.0	55.0

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## F-CY-JZ / F-CY-OZ, braided screen of tinned copper wires

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.	Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
16382	20 G 1	18	14.9	317.0	440.0	16451	37 G 1.5	16	21.3	674.0	945.0
16063	20 x 1	18	14.9	317.0	440.0	16411	40 G 1.5	16	23.1	725.0	1060.0
16383	24 G 1	18	16.5	320.0	493.0	16092	40 x 1.5	16	23.1	725.0	1060.0
16064	24 x 1	18	16.5	320.0	495.0	16493	41 G 1.5	16	23.1	801.0	1071.0
16384	25 G 1	18	16.5	349.0	534.0	16412	50 G 1.5	16	25.5	885.0	1290.0
16065	25 x 1	18	16.5	349.0	534.0	16093	50 x 1.5	16	25.5	885.0	1440.0
16439	27 G 1	18	16.5	400.0	562.0	16413	61 G 1.5	16	27.1	1100.0	1705.0
16385	28 G 1	18	17.6	408.0	595.0	16094	61 x 1.5	16	27.1	1100.0	1700.0
16066	28 x 1	18	17.6	408.0	595.0	16414	80 G 1.5	16	31.1	1324.0	2010.0
16386	30 G 1	18	17.6	441.0	616.0	16095	80 x 1.5	16	31.1	1324.0	2000.0
16067	30 x 1	18	17.6	441.0	616.0	16415	100 G 1.5	16	34.5	1641.0	2505.0
16387	34 G 1	18	19.0	486.0	741.0	16096	100 x 1.5	16	34.5	1641.0	2500.0
16068	34 x 1	18	19.0	486.0	741.0	16416	2 x 2.5	14	8.5	96.0	130.0
16446	37 G 1	18	19.0	519.0	790.0	16417	3 G 2.5	14	9.2	144.0	167.0
16388	40 G 1	18	20.4	510.0	835.0	16099	3 x 2.5	14	9.2	144.0	167.0
16069	40 x 1	18	20.4	510.0	835.0	16418	4 G 2.5	14	10.0	148.0	195.0
16492	41 G 1	18	20.6	531.0	843.0	16100	4 x 2.5	14	10.0	148.0	195.0
16389	50 G 1	18	22.4	625.0	1025.0	16419	5 G 2.5	14	11.0	181.0	223.0
16070	50 x 1	18	22.4	625.0	1025.0	16101	5 x 2.5	14	11.0	181.0	223.0
16390	61 G 1	18	23.8	702.0	1205.0	16420	7 G 2.5	14	12.1	255.0	344.0
16071	61 x 1	18	23.8	702.0	1200.0	16102	7 x 2.5	14	12.1	255.0	344.0
16391	80 G 1	18	27.4	920.0	1445.0	16421	10 G 2.5	14	15.7	340.0	460.0
16072	80 x 1	18	27.4	920.0	1440.0	16438	12 G 2.5	14	16.4	441.0	570.0
16392	100 G 1	18	30.6	1120.0	1613.0	16103	12 x 2.5	14	16.4	441.0	522.0
16073	100 x 1	18	30.6	1120.0	1610.0	16452	18 G 2.5	14	19.3	570.0	681.0
16393	2 x 1.5	16	7.1	63.0	88.0	16422	2 x 4	12	10.5	120.0	185.0
16394	3 G 1.5	16	7.7	80.0	100.0	16423	3 G 4	12	11.1	174.0	240.0
16076	3 x 1.5	16	7.7	80.0	100.0	16105	3 x 4	12	11.1	174.0	240.0
16395	4 G 1.5	16	8.3	97.0	126.0	16424	4 G 4	12	12.3	230.0	310.0
16077	4 x 1.5	16	8.3	97.0	126.0	16106	4 x 4	12	12.3	230.0	310.0
16396	5 G 1.5	16	9.2	119.0	160.0	16425	5 G 4	12	13.8	273.0	385.0
16078	5 x 1.5	16	9.2	119.0	160.0	16107	5 x 4	12	13.8	273.0	400.0
16397	7 G 1.5	16	9.9	147.0	208.0	16426	7 G 4	12	15.1	316.0	500.0
16079	7 x 1.5	16	9.9	147.0	208.0	16108	7 x 4	12	15.1	316.0	500.0
16398	8 G 1.5	16	10.9	170.0	244.0	16427	2 x 6	10	11.9	173.0	268.0
16080	8 x 1.5	16	10.9	170.0	244.0	16428	3 G 6	10	12.6	240.0	330.0
16399	10 G 1.5	16	12.7	193.0	315.0	16110	3 x 6	10	12.6	240.0	330.0
16081	10 x 1.5	16	12.7	193.0	316.0	16429	4 G 6	10	14.2	305.0	415.0
16400	12 G 1.5	16	13.5	267.0	338.0	16111	4 x 6	10	14.2	305.0	415.0
16082	12 x 1.5	16	13.5	267.0	338.0	16430	5 G 6	10	15.6	439.0	509.0
16401	14 G 1.5	16	14.1	283.0	383.0	16112	5 x 6	10	15.6	439.0	509.0
16083	14 x 1.5	16	14.1	283.0	383.0	16431	7 G 6	10	17.1	505.0	672.0
16402	16 G 1.5	16	15.0	315.0	424.0	16113	7 x 6	10	17.1	505.0	672.0
16084	16 x 1.5	16	15.0	315.0	424.0	16432	2 x 10	8	15.3	255.0	425.0
16403	18 G 1.5	16	15.7	374.0	479.0	16433	3 G 10	8	16.5	350.0	500.0
16085	18 x 1.5	16	15.7	374.0	479.0	16115	3 x 10	8	16.5	350.0	500.0
16449	19 G 1.5	16	15.7	386.0	508.0	16434	4 G 10	8	18.2	535.0	783.0
16404	20 G 1.5	16	16.7	396.0	545.0	16116	4 x 10	8	18.2	535.0	783.0
16086	20 x 1.5	16	16.7	396.0	545.0	16435	5 G 10	8	20.0	592.0	856.0
16405	21 G 1.5	16	16.7	425.0	560.0	16117	5 x 10	8	20.0	592.0	856.0
16406	24 G 1.5	16	18.5	458.0	690.0	16436	7 G 10	8	22.1	810.0	1305.0
16087	24 x 1.5	16	18.5	458.0	690.0	16118	7 x 10	8	22.1	810.0	1300.0
16407	25 G 1.5	16	18.5	526.0	705.0	16458	3 G 16	6	19.0	585.0	795.0
16088	25 x 1.5	16	18.5	526.0	705.0	16457	3 x 16	6	19.0	585.0	795.0
16450	27 G 1.5	16	18.7	531.0	774.0	16440	4 G 16	6	21.0	740.0	880.0
16408	28 G 1.5	16	19.7	541.0	810.0	16437	5 G 16	6	23.1	895.0	1295.0
16089	28 x 1.5	16	19.7	541.0	810.0	16441	4 G 25	4	26.4	1140.0	1570.0
16409	30 G 1.5	16	19.7	555.0	830.0	16442	5 G 25	4	29.0	1380.0	1965.0
16090	30 x 1.5	16	19.7	555.0	830.0	16443	4 G 35	2	29.0	1576.0	2070.0
11018804	31 G 1.5	16	20.8	569.0	797.0	16444	5 G 35	2	32.3	1930.0	2690.0
16410	35 G 1.5	16	21.3	645.0	890.0	16445	4 G 50	1	34.8	2155.0	3015.0
16091	35 x 1.5	16	21.3	645.0	890.0						

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