

F-CY-OZ (LiY-CY) flexible, Cu-screened, EMC-preferred type, meter marking



Technical data

- Special-PVC data cable adapted to DIN VDE 0285-525-2-51 / DIN EN 50525-2-51
- **Temperature range**
flexing -10°C to +80°C
fixed installation -40°C to +80°C
- **Nominal voltage**
for 1-core (LiYDY) 1200 V
from 2-cores U₀/U 300/500 V
- **Test voltage** core/core 4000 V
core/screen 2000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**
min. 20 MOhm x km
- **Mutual capacitance**
acc. to different cross-sections
core/core approx. 150 nF/km
core/screen approx. 270 nF/km
- **Coupling resistance**
max. 250 Ohm/km
- **Minimum bending radius**
flexing 10x cable Ø
fixed installation 5x cable Ø
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of special PVC compound type Z 7225
- Core identification to DIN VDE 0293 black cores with continuous white numbering
- Cores stranded in layers with optimal lay-length
- Core wrapping with foil
- - for **1-core** (LiYDY) copper screen of helically wound, approx. 85% coverage
- from **2-cores** tinned copper braided screen, approx. 85% coverage
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Sheath colour grey (RAL 7001)
- with meter marking

Properties

- Extensively oil resistant, oil-/chemical resistance see table Technical Informations
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Tests

- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

- x = without green-yellow conductor (OZ)
- Designation: LiYDY for **1-core** cable.
- Cleanroom qualification tested with analog type. Please note "cleanroom qualified" when ordering.
For more information, see introduction
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- unscreened analogue type:
JZ-500

Application

For flexible use with free movement without tensile stress or forced movements in dry, moist and wet rooms but not in open air, as data cable in the control and regulation technology, tool and machinery, in computer systems, as well as signal line in the electronic. A stabilizing foil separator between wire bound and braid reduces the outer diameter essentially and allows smaller bending radius, lower weight etc. The disturbance free transmission of signals and impulses is ensured due to the high degree of screening. This is an ideal disturbance-free control cable for the above applications.

EMC = Electromagnetic compatibility

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

CE = The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.	Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
16531	1 x 0,5	3,7	15,0	41,0	20	16544	20 x 0,5	12,3	172,0	240,0	20
16532	2 x 0,5	5,7	35,0	45,0	20	16545	21 x 0,5	12,3	188,0	250,0	20
16533	3 x 0,5	5,9	42,0	55,0	20	16546	24 x 0,5	13,6	235,0	300,0	20
16534	4 x 0,5	6,4	47,0	61,0	20	16547	25 x 0,5	13,7	240,0	314,0	20
16535	5 x 0,5	6,9	56,0	74,0	20	16548	30 x 0,5	14,4	295,0	360,0	20
16536	6 x 0,5	7,6	67,0	89,0	20	16549	32 x 0,5	14,9	301,0	425,0	20
16537	7 x 0,5	7,6	69,0	98,0	20	16550	34 x 0,5	15,5	312,0	433,0	20
16538	8 x 0,5	8,1	80,0	117,0	20	16551	36 x 0,5	15,5	318,0	446,0	20
16539	10 x 0,5	9,6	94,0	135,0	20	16552	40 x 0,5	16,5	343,0	475,0	20
16540	12 x 0,5	9,7	108,0	157,0	20	16553	50 x 0,5	18,5	406,0	573,0	20
16541	14 x 0,5	10,2	116,0	190,0	20	16554	61 x 0,5	19,7	508,0	653,0	20
16542	16 x 0,5	11,0	129,0	210,0	20	16555	80 x 0,5	22,6	680,0	784,0	20
16543	18 x 0,5	11,5	145,0	217,0	20	16556	100 x 0,5	24,9	804,0	995,0	20

Continuation ▯

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Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
16557	1 x 0,75	4,0	19,0	44,0	19
16558	2 x 0,75	6,1	40,0	59,0	19
16559	3 x 0,75	6,3	52,0	66,0	19
16560	4 x 0,75	6,8	60,0	77,0	19
16561	5 x 0,75	7,4	71,0	93,0	19
16562	6 x 0,75	8,2	80,0	113,0	19
16563	7 x 0,75	8,2	91,0	130,0	19
16564	8 x 0,75	9,0	110,0	145,0	19
16565	10 x 0,75	10,3	137,0	180,0	19
16566	12 x 0,75	10,5	142,0	202,0	19
16567	14 x 0,75	11,3	180,0	225,0	19
16568	16 x 0,75	11,9	200,0	275,0	19
16569	18 x 0,75	12,7	212,0	292,0	19
16570	19 x 0,75	12,7	230,0	308,0	19
16571	20 x 0,75	13,6	238,0	320,0	19
16572	21 x 0,75	13,6	246,0	378,0	19
16573	24 x 0,75	14,9	270,0	435,0	19
16574	25 x 0,75	15,0	281,0	415,0	19
16575	27 x 0,75	15,1	304,0	435,0	19
16576	30 x 0,75	16,0	320,0	450,0	19
16577	32 x 0,75	16,7	342,0	484,0	19
16578	34 x 0,75	17,2	345,0	502,0	19
16579	36 x 0,75	17,4	350,0	535,0	19
16580	37 x 0,75	17,4	361,0	592,0	19
16581	40 x 0,75	18,1	369,0	610,0	19
16582	50 x 0,75	20,3	461,0	777,0	19
16583	61 x 0,75	22,0	540,0	900,0	19
16584	80 x 0,75	25,3	711,0	1210,0	19
16585	100 x 0,75	28,0	900,0	1445,0	19
16050	1 x 1	4,1	21,0	47,0	18
16051	2 x 1	6,4	50,0	65,0	18
16052	3 x 1	6,7	60,0	81,0	18
16053	4 x 1	7,2	71,0	98,0	18
16054	5 x 1	8,0	88,0	127,0	18
16055	6 x 1	8,7	97,0	144,0	18
16056	7 x 1	8,7	111,0	158,0	18
16057	8 x 1	9,6	127,0	197,0	18
16058	10 x 1	11,2	150,0	232,0	18
16059	12 x 1	11,4	184,0	260,0	18
16060	14 x 1	12,0	196,0	302,0	18
16061	16 x 1	12,8	209,0	345,0	18
16062	18 x 1	13,6	260,0	380,0	18
16063	20 x 1	14,3	317,0	440,0	18
16064	24 x 1	16,0	320,0	495,0	18
16065	25 x 1	16,2	349,0	534,0	18
16066	28 x 1	17,0	408,0	595,0	18
16067	30 x 1	17,2	441,0	616,0	18
16068	34 x 1	18,5	486,0	741,0	18
16069	40 x 1	19,4	510,0	835,0	18
16070	50 x 1	22,0	625,0	1025,0	18
16071	61 x 1	23,5	702,0	1200,0	18
16072	80 x 1	26,9	920,0	1440,0	18
16073	100 x 1	30,2	1120,0	1610,0	18

Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
16074	1 x 1,5	4,6	27,0	70,0	16
16075	2 x 1,5	7,0	63,0	88,0	16
16076	3 x 1,5	7,4	80,0	100,0	16
16077	4 x 1,5	8,1	97,0	126,0	16
16078	5 x 1,5	9,0	119,0	160,0	16
16079	7 x 1,5	9,8	147,0	208,0	16
16080	8 x 1,5	10,8	170,0	244,0	16
16081	10 x 1,5	12,6	193,0	316,0	16
16082	12 x 1,5	12,8	267,0	338,0	16
16083	14 x 1,5	13,5	283,0	383,0	16
16084	16 x 1,5	14,6	315,0	424,0	16
16085	18 x 1,5	15,6	374,0	479,0	16
16086	20 x 1,5	16,6	396,0	545,0	16
16087	24 x 1,5	18,1	458,0	690,0	16
16088	25 x 1,5	18,4	526,0	705,0	16
16089	28 x 1,5	19,3	541,0	810,0	16
16090	30 x 1,5	19,6	555,0	830,0	16
16091	35 x 1,5	21,2	645,0	890,0	16
16092	40 x 1,5	22,0	725,0	1060,0	16
16093	50 x 1,5	25,0	885,0	1440,0	16
16094	61 x 1,5	26,8	1100,0	1700,0	16
16095	80 x 1,5	30,8	1324,0	2000,0	16
16096	100 x 1,5	34,1	1641,0	2500,0	16
16097	1 x 2,5	5,4	39,0	50,0	14
16098	2 x 2,5	8,4	96,0	130,0	14
16099	3 x 2,5	8,8	144,0	167,0	14
16100	4 x 2,5	9,8	148,0	195,0	14
16101	5 x 2,5	10,8	181,0	223,0	14
16102	7 x 2,5	11,9	255,0	344,0	14
16103	12 x 2,5	15,8	441,0	522,0	14
16104	2 x 4	10,0	120,0	185,0	12
16105	3 x 4	10,6	174,0	240,0	12
16106	4 x 4	11,6	230,0	310,0	12
16107	5 x 4	12,8	273,0	400,0	12
16108	7 x 4	14,2	316,0	500,0	12
16109	2 x 6	11,7	173,0	268,0	10
16110	3 x 6	12,5	240,0	330,0	10
16111	4 x 6	13,8	305,0	415,0	10
16112	5 x 6	15,4	439,0	509,0	10
16113	7 x 6	17,0	505,0	672,0	10
16114	2 x 10	14,5	255,0	425,0	8
16115	3 x 10	15,6	350,0	500,0	8
16116	4 x 10	17,2	535,0	783,0	8
16117	5 x 10	19,1	592,0	856,0	8
16118	7 x 10	21,2	810,0	1300,0	8

Dimensions and specifications may be changed without prior notice. (RA01)