

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



## Technical data

- Special PVC data cables, adapted to DIN VDE 0281 part 13
- **Temperature range**  
flexing -5 °C to +80 °C  
fixed installation -40 °C to +80 °C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V  
for 1 core (LiYDY) 1200 V
- **Test voltage** core/core 4000 V  
core/screen 2000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**  
min. 20 MΩm x km
- **Mutual capacitance** according to different cross-sections  
core/core approx. 150 nF/km  
core/screen approx. 270 nF/km
- **Coupling resistance**  
max. 250 Ωm/km
- **Minimum bending radius**  
flexing 10x cable ø  
fixed installation 5x cable ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

## Cable structure

- Bare copper, fine wire conductors, bunch stranded to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of special PVC Z 7225
- Black cores with continuous numbering in white according to DIN VDE 0293
- Cores stranded in layers with optimal lay-length
- Core wrapping with foil
- Tinned copper braided screen, approx. 85% coverage
- For 1 core cable copper screen of helically wound (type LiYDY), approx. 85% coverage
- Special PVC outer sheath TM2, to DIN VDE 0281 part 1 and HD 21.1
- Sheath colour grey (RAL 7001)
- with meter marking, change-over in 2011

## Properties

- Extensively oil resistant, oil-/ chemical Resistance - see table Technical Informations
- PVC self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Note

- x = without green-yellow earth core (OZ).
- For 1 core cable screen of helically wound.
- Cleanroom qualification tested with analog type. Please note "cleanroom qualified" when ordering.  
For more information, see introduction
- **unscreened analogue type:**  
**JZ 500**, see page A 6

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, as data cables in control technologies, in the tool making and machine industries, in computers and as a signal cable for the electronics branch. A stabilizing separator between core bundle and braid reduces essentially the external diameter and allows smaller bending radius, lower weight etc.

The dense screening assures disturbance-free transmission of all signals and impulses. An ideal disturbance-free control cable for the above applications.

**EMC** = Electromagnetic compatibility

To optimise 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/EG.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	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
16532	2 x 0,5	5,7	35,0	45,0	20
16533	3 x 0,5	5,9	42,0	55,0	20
16534	4 x 0,5	6,4	47,0	61,0	20
16535	5 x 0,5	6,9	56,0	74,0	20
16536	6 x 0,5	7,6	67,0	89,0	20
16537	7 x 0,5	7,6	69,0	98,0	20
16538	8 x 0,5	8,7	80,0	117,0	20
16539	10 x 0,5	9,6	94,0	135,0	20
16540	12 x 0,5	9,7	108,0	157,0	20
16541	14 x 0,5	10,2	116,0	190,0	20
16542	16 x 0,5	11,0	129,0	210,0	20
16543	18 x 0,5	11,5	145,0	217,0	20

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
16544	20 x 0,5	12,2	172,0	240,0	20
16545	21 x 0,5	12,7	188,0	250,0	20
16546	24 x 0,5	13,5	235,0	300,0	20
16547	25 x 0,5	13,6	240,0	314,0	20
16548	30 x 0,5	14,4	295,0	360,0	20
16549	32 x 0,5	14,9	301,0	425,0	20
16550	34 x 0,5	15,6	312,0	433,0	20
16551	36 x 0,5	15,6	318,0	446,0	20
16552	40 x 0,5	16,9	343,0	475,0	20
16553	50 x 0,5	18,5	406,0	573,0	20
16554	61 x 0,5	19,7	508,0	653,0	20
16555	80 x 0,5	22,6	680,0	784,0	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 <sup>2</sup>	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	18
16558	2 x 0,75	6,1	40,0	59,0	18
16559	3 x 0,75	6,3	52,0	66,0	18
16560	4 x 0,75	6,8	60,0	77,0	18
16561	5 x 0,75	7,4	71,0	93,0	18
16562	6 x 0,75	8,2	80,0	113,0	18
16563	7 x 0,75	8,2	91,0	130,0	18
16564	8 x 0,75	9,6	110,0	145,0	18
16565	10 x 0,75	10,3	137,0	180,0	18
16566	12 x 0,75	10,5	142,0	202,0	18
16567	14 x 0,75	11,3	180,0	225,0	18
16568	16 x 0,75	11,9	200,0	275,0	18
16569	18 x 0,75	12,7	212,0	292,0	18
16570	19 x 0,75	12,7	230,0	308,0	18
16571	20 x 0,75	13,3	238,0	320,0	18
16572	21 x 0,75	14,0	246,0	378,0	18
16573	24 x 0,75	14,9	270,0	435,0	18
16574	25 x 0,75	15,0	281,0	415,0	18
16575	27 x 0,75	15,0	304,0	435,0	18
16576	30 x 0,75	15,8	320,0	450,0	18
16577	32 x 0,75	16,7	342,0	484,0	18
16578	34 x 0,75	17,2	345,0	502,0	18
16579	36 x 0,75	17,2	350,0	535,0	18
16580	37 x 0,75	17,2	361,0	592,0	18
16581	40 x 0,75	18,6	369,0	610,0	18
16582	50 x 0,75	20,3	461,0	777,0	18
16583	61 x 0,75	21,7	540,0	900,0	18
16584	80 x 0,75	24,8	711,0	1210,0	18
16585	100 x 0,75	27,6	900,0	1445,0	18
16050	1 x 1	4,6	21,0	47,0	17
16051	2 x 1	6,4	50,0	65,0	17
16052	3 x 1	6,7	60,0	81,0	17
16053	4 x 1	7,2	71,0	98,0	17
16054	5 x 1	8,0	88,0	127,0	17
16055	6 x 1	8,7	97,0	144,0	17
16056	7 x 1	8,7	111,0	158,0	17
16057	8 x 1	10,1	127,0	197,0	17
16058	10 x 1	11,2	150,0	232,0	17
16059	12 x 1	11,4	184,0	260,0	17
16060	14 x 1	12,0	196,0	302,0	17
16061	16 x 1	12,8	209,0	345,0	17
16062	18 x 1	13,5	260,0	380,0	17
16063	20 x 1	14,3	317,0	440,0	17
16064	24 x 1	16,0	320,0	495,0	17
16065	25 x 1	16,2	349,0	534,0	17
16066	28 x 1	17,0	408,0	595,0	17
16067	30 x 1	17,0	441,0	616,0	17
16068	34 x 1	18,5	486,0	741,0	17
16069	40 x 1	19,9	510,0	835,0	17
16070	50 x 1	21,8	625,0	1025,0	17
16071	61 x 1	23,3	702,0	1200,0	17
16072	80 x 1	26,6	920,0	1440,0	17
16073	100 x 1	29,7	1120,0	1610,0	17

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
16074	1 x 1,5	5,0	27,0	70,0	16
16075	2 x 1,5	7,0	63,0	88,0	16
16076	3 x 1,5	7,5	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	11,4	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	14,4	315,0	424,0	16
16085	18 x 1,5	15,5	374,0	479,0	16
16086	20 x 1,5	16,4	396,0	545,0	16
16087	24 x 1,5	18,2	458,0	690,0	16
16088	25 x 1,5	18,4	526,0	705,0	16
16089	28 x 1,5	19,1	541,0	810,0	16
16090	30 x 1,5	19,1	555,0	830,0	16
16091	35 x 1,5	20,8	645,0	890,0	16
16092	40 x 1,5	22,6	725,0	1060,0	16
16093	50 x 1,5	24,7	885,0	1440,0	16
16094	61 x 1,5	26,4	1100,0	1700,0	16
16095	80 x 1,5	30,3	1324,0	2000,0	16
16096	100 x 1,5	33,6	1641,0	2500,0	16
16097	1 x 2,5	5,8	39,0	50,0	14
16098	2 x 2,5	8,3	96,0	130,0	14
16099	3 x 2,5	9,0	144,0	167,0	14
16100	4 x 2,5	9,8	148,0	195,0	14
16101	5 x 2,5	10,9	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	9,8	120,0	185,0	12
16105	3 x 4	10,6	174,0	240,0	12
16106	4 x 4	11,5	230,0	310,0	12
16107	5 x 4	12,7	273,0	400,0	12
16108	7 x 4	14,0	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	15,3	439,0	509,0	10
16113	7 x 6	16,9	505,0	672,0	10
16114	2 x 10	14,7	255,0	425,0	8
16115	3 x 10	15,7	350,0	500,0	8
16116	4 x 10	17,3	535,0	783,0	8
16117	5 x 10	19,2	592,0	856,0	8
16118	7 x 10	21,4	810,0	1300,0	8

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