

cable assembly

- standard cables & accessories -

■ standard

■ on request

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Color Code acc. DIN 47100

Wires without color retake

Wire	Color Wire	Code	Wire	Color Wire	Code	Wire	Color Wire	Code
1	white	ws	22	brown-blue	brbl	42	pink-black	rssw
2	brown	br	23	white-red	wsrt	43	blue-black	blsw
3	green	gn	24	brown-red	brrt	44	red-black	rtsw
4	yellow	ge	25	white-black	wssw	45	white-brown-black	wsbrsw
5	grey	gr	26	brown-black	brsw	46	yellow-green-black	gegsw
6	pink	rsl	27	grey-green	grgn	47	grey-pink-black	grssw
7	blue	bl	28	yellow-grey	gegr	48	blue-red-black	blrtsw
8	red	rt	29	pink-green	rsgn	49	white-green-black	wsgnsw
9	black	sw	30	yellow-pink	gers	50	green-brown-black	gnbrsw
10	purple	vio	31	green-blue	gnbl	51	white-yellow-black	wsgesw
11	grey-pink	grrs	32	yellow-blue	gebl	52	yellow-brown-black	gebrsw
12	red-blue	rtbl	33	green-red	gnrt	53	white-brey-black	wsgnsw
13	white-green	wsgn	34	yellow-red	gert	54	grey-brown-black	grbrsw
14	brown-green	brgn	35	green-black	gnsw	55	white-pink-black	wsrsw
15	white-yellow	wsge	36	yellow-black	gesw	56	pink-brown-black	rsbrsw
16	yellow-brown	gebr	37	grey-blue	grbl	57	white-blue-black	wsblsw
17	white-grey	wsgr	38	pink-blue	gsbl	58	brown-blue-black	brblsw
18	grey-brown	gebr	39	grey-red	grrt	59	white-red-black	wsrtsw
19	white-pink	wrs	40	pink-red	rsrt	60	brown-red-black	brrtsw
20	pink-brown	rsbr	41	grey-black	grsw	61	black-white	swws
21	white-blue	wsbl						

- The wires are consecutively numbered codirectionally through all the layers, starting in the outer layer. The first color is the ground color.
- The 2nd and 3rd colors are applied in the form of abrasion-resistant colored rings.
The color code identifiers for wires with two or three colors are strung together back-to-back.
- The color code for lines with repeated colors begins with white (1) again starting with the 45th wire.
- For twisted pair wires, the two successively named colors are always twisted. The color code repeats starting with the 23rd and 45th pair.

International color code

for UL- /CSA-Pilot Wire

Wire	Color Wire	Wire	Color Wire	Wire	Color Wire	Wire	Color Wire
1	black	16	white-green	31	green-red	46	grey-brown
2	brown	17	white-blue	32	green-orange	47	grey-red
3	red	18	white-purple	33	green-blue	48	grey-orange
4	orange	19	white-grey	34	green-purple	49	grey-yellow
5	yellow	20	brown-black	35	green-grey	50	grey-green
6	green	21	brown-red	36	green-white	51	grey-blue
7	blue	22	brown-orange	37	yellow-black	52	grey-purple
8	purple	23	brown-yellow	38	yellow-brown	53	grey-white
9	grey	24	brown-green	39	yellow-red	54	orange-black
10	white	25	brown-blue	40	yellow-orange	55	orange-blue
11	white-black	26	brown-purple	41	yellow-blue	56	orange-red
12	white-brown	27	brown-grey	42	yellow-purple	57	orange-yellow
13	white-red	28	brown-white	43	yellow-grey	58	orange-green
14	white-orange	29	green-black	44	yellow-white	59	orange-blue
15	white-yellow	30	green-brown	45	grey-black	60	orange purple

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Single Wire - PVC



Wire:	Cu-Wire, tinned
Isolation:	Semi-Rigid – PVC
Temperature range in neutrals:	- 30 up to + 80 °C
Temperature range in motion:	- 5 up to + 80 °C
Isolation resistance:	min. 200 MΩ x km +20 °C
Section thickness:	ca. 0,25 mm
Test voltage:	2.500 V
Operating Voltage:	300 V
Identification:	Label



Cross Section 0.08 qmm / AWG 28 – with UL certification

UL - Style:	1061
Structure:	7 x 0.127

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.353	black	0.90
921.000.002.000.354	brown	0.90
921.000.002.000.355	red	0.90
921.000.002.000.356	orange	0.90
921.000.002.000.357	yellow	0.90
921.000.002.000.358	green	0.90
921.000.002.000.359	blue	0.90
921.000.002.000.360	purple	0.90
921.000.002.000.361	grey	0.90
921.000.002.000.362	white	0.90
921.000.002.000.363	white-black	0.90
921.000.002.000.364	white-brown	0.90
921.000.002.000.355	white-red	0.90
921.000.002.000.366	white-orange	0.90
921.000.002.000.367	white-yellow	0.90
921.000.002.000.368	white-green	0.90
921.000.002.000.369	white-blue	0.90
921.000.002.000.370	white-purple	0.90
921.000.002.000.371	white-grey	0.90
921.000.002.000.372	brown-black	0.90
921.000.002.000.495	green-yellow	0.90

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Cross section 0.14 qmm / AWG 26 – with UL certification

UL - Style: 1061

Structure: 7 x 0.16

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.373	black	1.00
921.000.002.000.374	brown	1.00
921.000.002.000.375	red	1.00
921.000.002.000.376	orange	1.00
921.000.002.000.377	yellow	1.00
921.000.002.000.378	green	1.00
921.000.002.000.379	blue	1.00
921.000.002.000.380	purple	1.00
921.000.002.000.381	grey	1.00
921.000.002.000.382	white	1.00
921.000.002.000.383	white-black	1.00
921.000.002.000.384	white-brown	1.00
921.000.002.000.385	white-red	1.00
921.000.002.000.386	white-orange	1.00
921.000.002.000.387	white-yellow	1.00
921.000.002.000.388	white-green	1.00
921.000.002.000.389	white-blue	1.00
921.000.002.000.390	white-purple	1.00
921.000.002.000.391	white-grey	1.00
921.000.002.000.392	brown-black	1.00
921.000.002.000.496	green-yellow	1.00

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Cross Section 0.25 qmm / AWG 24 – with UL certification

UL - Style:

Structure:

ODU Part-No.	Color	Outer Ø
921.000.002.000.653	black	1.10
921.000.002.000.729	brown	1.10
921.000.002.000.730	red	1.10
921.000.002.000.731	orange	1.10
921.000.002.000.732	yellow	1.10
921.000.002.000.733	green	1.10
921.000.002.000.734	blue	1.10
921.000.002.000.735	purple	1.10
921.000.002.000.736	grey	1.10
921.000.002.000.737	white	1.10
921.000.002.000.738	white-black	1.10
921.000.002.000.739	white-brown	1.10
921.000.002.000.740	white-red	1.10
921.000.002.000.741	white-orange	1.10
921.000.002.000.742	white-yellow	1.10
921.000.002.000.743	white-green	1.10
921.000.002.000.744	white-blue	1.10
921.000.002.000.745	white-purple	1.10
921.000.002.000.746	white-grey	1.10
921.000.002.000.747	brown-black	1.10
921.000.002.000.749	green-yellow	1.10

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Cross Section 0.34 qmm / AWG 22 – with UL certification

UL - Style: 1061

Structure: 7 x 0.25

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.393	black	1.30
921.000.002.000.394	brown	1.30
921.000.002.000.395	red	1.30
921.000.002.000.396	orange	1.30
921.000.002.000.397	yellow	1.30
921.000.002.000.398	green	1.30
921.000.002.000.399	blue	1.30
921.000.002.000.400	purple	1.30
921.000.002.000.401	grey	1.30
921.000.002.000.402	white	1.30
921.000.002.000.403	white-black	1.30
921.000.002.000.404	white-brown	1.30
921.000.002.000.405	white-red	1.30
921.000.002.000.406	white-orange	1.30
921.000.002.000.407	white-yellow	1.30
921.000.002.000.408	white-green	1.30
921.000.002.000.409	white-blue	1.30
921.000.002.000.410	white-purple	1.30
921.000.002.000.411	white-grey	1.30
921.000.002.000.412	brown-black	1.30
921.000.002.000.497	green-yellow	1.30

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Cross Section 0.50 qmm / AWG 20 – with UL certification

UL - Style: 1061

Structure: 7 x 0.32

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.413	black	1.50
921.000.002.000.414	brown	1.50
921.000.002.000.415	red	1.50
921.000.002.000.416	orange	1.50
921.000.002.000.417	yellow	1.50
921.000.002.000.418	green	1.50
921.000.002.000.419	blue	1.50
921.000.002.000.420	purple	1.50
921.000.002.000.421	grey	1.50
921.000.002.000.422	white	1.50
921.000.002.000.423	white-black	1.50
921.000.002.000.424	white-brown	1.50
921.000.002.000.425	white-red	1.50
921.000.002.000.426	white-orange	1.50
921.000.002.000.427	white-yellow	1.50
921.000.002.000.428	white-green	1.50
921.000.002.000.429	white-blue	1.50
921.000.002.000.430	white-purple	1.50
921.000.002.000.431	white-grey	1.50
921.000.002.000.432	brown-black	1.50
921.000.002.000.498	green-yellow	1.50

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Cross Section 1 qmm / AWG 18 – with UL certification

UL - Style: 1007/1569

Structure: 28 x 0.20

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.433	black	2.15
921.000.002.000.434	brown	2.15
921.000.002.000.435	red	2.15
921.000.002.000.436	orange	2.15
921.000.002.000.437	yellow	2.15
921.000.002.000.438	green	2.15
921.000.002.000.439	blue	2.15
921.000.002.000.440	purple	2.15
921.000.002.000.441	grey	2.15
921.000.002.000.442	white	2.15
921.000.002.000.443	white-black	2.15
921.000.002.000.444	white-brown	2.15
921.000.002.000.445	white-red	2.15
921.000.002.000.446	white-orange	2.15
921.000.002.000.447	white-yellow	2.15
921.000.002.000.448	white-green	2.15
921.000.002.000.449	white-blue	2.15
921.000.002.000.450	white-purple	2.15
921.000.002.000.451	white-grey	2.15
921.000.002.000.452	brown-black	2.15
921.000.002.000.499	green-yellow	2.15

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Cross Section 1.5 qmm / AWG 16 – with UL certification

UL - Style: 1007/1569

Structure: 41 x 0.0203 mm bzw. 44 x 0.20 mm (acc. to manufacturer)

ODU Part-No.	Color IC - Code	Outer Ø
921.000.002.000.501	black	2.50
921.000.002.000.502	brown	2.50
921.000.002.000.503	red	2.50
921.000.002.000.504	orange	2.50
921.000.002.000.505	yellow	2.50
921.000.002.000.506	green	2.50
921.000.002.000.507	blue	2.50
921.000.002.000.508	purple	2.50
921.000.002.000.509	grey	2.50
921.000.002.000.510	white	2.50
921.000.002.000.511	white-black	2.50
921.000.002.000.512	white-brown	2.50
921.000.002.000.513	white-red	2.50
921.000.002.000.514	white-orange	2.50
921.000.002.000.515	white-yellow	2.50
921.000.002.000.516	white-green	2.50
921.000.002.000.517	white-blue	2.50
921.000.002.000.518	white-purple	2.50
921.000.002.000.519	white-grey	2.50
921.000.002.000.520	white-black	2.50
921.000.002.000.521	green-yellow	2.50

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Cross Section 2.5 qmm / AWG 14 – with UL certification

UL - Style: 1007 / 1569

Structure: 19 x 0.375

ODU Part-No.	Color IC - Code	Outer \varnothing
921.000.002.000.453	black	2.80
921.000.002.000.454	brown	2.80
921.000.002.000.455	red	2.80
921.000.002.000.456	orange	2.80
921.000.002.000.457	yellow	2.80
921.000.002.000.458	green	2.80
921.000.002.000.459	blue	2.80
921.000.002.000.460	purple	2.80
921.000.002.000.461	grey	2.80
921.000.002.000.462	white	2.80
921.000.002.000.463	white-black	2.80
921.000.002.000.464	white-brown	2.80
921.000.002.000.465	white-red	2.80
921.000.002.000.466	white-orange	2.80
921.000.002.000.467	white-yellow	2.80
921.000.002.000.468	white-green	2.80
921.000.002.000.469	white-blue	2.80
921.000.002.000.470	white-purple	2.80
921.000.002.000.471	white-grey	2.80
921.000.002.000.472	brown-black	2.80
921.000.002.000.500	green-yellow	2.80

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Single flexible wire made out of PTFE

Cross Section 0.08 qmm / AWG 28

Wire:	Cu-silvered
Isolation:	PTFE
Temperature range:	-65 up to +200 °C
Section thickness:	nom. 0.26mm
Test Voltage:	3400 V
Operating Voltage:	600 V
Structure:	7 x 0.127 mm



ODU Part-No.	Color	Outer Ø
921.000.002.000.650	black	0.79 – 0.99
921.000.002.000.654	brown	0.79 – 0.99
921.000.002.000.655	red	0.79 – 0.99
921.000.002.000.656	orange	0.79 – 0.99
921.000.002.000.657	yellow	0.79 – 0.99
921.000.002.000.658	green	0.79 – 0.99
921.000.002.000.659	blue	0.79 – 0.99
921.000.002.000.660	purple	0.79 – 0.99
921.000.002.000.661	grey	0.79 – 0.99
921.000.002.000.662	white	0.79 – 0.99

Cross Section 0.14 qmm / AWG 26

Wire:	Cu-silvered
Isolation:	PTFE 5Y
Temperature range:	-65 up to +200 °C
Conductor resistance:	132 Ω x km +20 °C
Test Voltage:	3400 V
Operating Voltage:	600 V
Structure:	19 x 0.10 mm



ODU Part-No.	Color	Outer Ø
921.000.002.000.651	black	1.02 – 1.22
921.000.002.000.673	brown	1.02 – 1.22
921.000.002.000.674	red	1.02 – 1.22
921.000.002.000.675	orange	1.02 – 1.22
921.000.002.000.676	yellow	1.02 – 1.22
921.000.002.000.677	green	1.02 – 1.22
921.000.002.000.678	blue	1.02 – 1.22
921.000.002.000.679	purple	1.02 – 1.22
921.000.002.000.680	grey	1.02 – 1.22
921.000.002.000.681	white	1.02 – 1.22

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Cross Section 0.25 qmm / AWG 24

Wire: Cu-silvered
 Isolation: PTFE
 Temperature range: -65 up to +200 °C
 Section thickness: nom. 0.23 mm
 Test voltage: 3400 V
 Operating Voltage: 600 V (on MIL), 900 V (on VDE)
 Structure: 19 x 0.13 mm



ODU Part-No.	Color	Outer Ø
921.000.002.000.692	black	1.02 – 1.22
921.000.002.000.299	brown	1.02 – 1.22
921.000.002.000.290	red	1.02 – 1.22
921.000.002.000.291	orange	1.02 – 1.22
921.000.002.000.295	yellow	1.02 – 1.22
921.000.002.000.289	green	1.02 – 1.22
921.000.002.000.294	blue	1.02 – 1.22
921.000.002.000.287	purple	1.02 – 1.22
921.000.002.000.693	grey	1.02 – 1.22
921.000.002.000.300	white	1.02 – 1.22

Cross Section 1.5 qmm / AWG 22

Wire: Cu-silvered
 Isolation: PTFE
 Temperature range: -65 up to +200 °C
 Conductor resistance: max. 49.5 Ω/km 20 °C
 Test voltage: 3400 V
 Operating Voltage: 600 V
 Structure: 19 x 0.16 mm



ODU Part-No.	Color	Outer Ø
921.000.002.000.284	black	1.24 ± 0.10
921.000.002.000.286	brown	1.24 ± 0.10
921.000.002.000.283	red	1.24 ± 0.10
921.000.002.000.641	orange	1.24 ± 0.10
921.000.002.000.281	yellow	1.24 ± 0.10
921.000.002.000.698	green	1.24 ± 0.10
921.000.002.000.282	blue	1.24 ± 0.10
921.000.002.000.699	purple	1.24 ± 0.10
921.000.002.000.280	grey	1.24 ± 0.10
921.000.002.000.285	white	1.24 ± 0.10

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Cross Section 0.50 qmm / AWG 20

Wire: Cu-silvered
Isolation: PTFE
Temperature range: -65 up to +200 °C
Conductor resistance: max. 30.1 Ω / km +20 °C
Test voltage: 3400 V
Operating Voltage: 600 V
Structure: 19 x 0.20 mm



ODU Part-No.	Color	Outer \varnothing
921.000.002.000.652	black	1.47
921.000.002.000.710	brown	1.47
921.000.002.000.711	red	1.47
921.000.002.000.712	orange	1.47
921.000.002.000.713	yellow	1.47
921.000.002.000.714	green	1.47
921.000.002.000.715	blue	1.47
921.000.002.000.716	purple	1.47
921.000.002.000.717	grey	1.47
921.000.002.000.718	white	1.47

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Harmonized Cables

H05V-K

Wire: Cu-Wire blank, finely strand on DIN VDE 0295 kl. 5

Cross Section 0.50 qmm

Structure: 16 x 0.20 mm



ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.098	2.10 + 0.40	black
921.000.002.000.750	2.10 + 0.40	brown
921.000.002.000.751	2.10 + 0.40	red
921.000.002.000.752	2.10 + 0.40	orange
921.000.002.000.753	2.10 + 0.40	yellow
921.000.002.000.754	2.10 + 0.40	green
921.000.002.000.755	2.10 + 0.40	blue
921.000.002.000.756	2.10 + 0.40	purple
921.000.002.000.757	2.10 + 0.40	grey
921.000.002.000.758	2.10 + 0.40	white
921.000.002.000.759	2.10 + 0.40	green/yellow

Cross Section 0.75 qmm

Structure: 24 x 0.20 mm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.112	2.20 – 2.70	black
921.000.002.000.760	2.20 – 2.70	brown
921.000.002.000.316	2.20 – 2.70	red
921.000.002.000.761	2.20 – 2.70	orange
921.000.002.000.762	2.20 – 2.70	yellow
921.000.002.000.763	2.20 – 2.70	green
921.000.002.000.764	2.20 – 2.70	blue
921.000.002.000.765	2.20 – 2.70	purple
921.000.002.000.766	2.20 – 2.70	grey
921.000.002.000.767	2.20 – 2.70	white
921.000.002.000.768	2.20 – 2.70	green/yellow

Cross Section 1.0 qmm

Structure: 32 x 0.195 mm

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ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.082	nom. 2.70	black
921.000.002.000.769	nom. 2.70	brown
921.000.002.000.200	nom. 2.70	red
921.000.002.000.770	nom. 2.70	orange
921.000.002.000.771	nom. 2.70	yellow
921.000.002.000.772	nom. 2.70	green
921.000.002.000.085	nom. 2.70	blue
921.000.002.000.111	nom. 2.70	purple
921.000.002.000.087	nom. 2.70	grey
921.000.002.000.083	nom. 2.70	white
921.000.002.000.081	nom. 2.70	green/yellow

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H07V-K

Wire: Cu-Wire blank, finely strand on DIN VDE 0295 kl. 5

Cross Section 1.5 qmm

Structure: 30 x 0.25 mm



ODU Part-Nr.	Wire diameter (mm)		Color
	mind.	max.	
921.000.002.000.101	3.25	3.50	black
921.000.002.000.773	3.25	3.50	brown
921.000.002.000.108	3.25	3.50	red
921.000.002.000.774	3.25	3.50	orange
921.000.002.000.775	3.25	3.50	yellow
921.000.002.000.151	3.25	3.50	green
921.000.002.000.086	3.25	3.50	blue
921.000.002.000.776	3.25	3.50	purple
921.000.002.000.109	3.25	3.50	grey
921.000.002.000.084	3.25	3.50	white
921.000.002.000.003	3.25	3.50	green/yellow

Cross Section 2.5 qmm

Structure: 50 x 0.25 mm

ODU Part-Nr.	Wire diameter (mm)		Color
	mind.	max.	
921.000.002.000.060	3.90	4.20	black
921.000.002.000.152	3.90	4.20	brown
921.000.002.000.153	3.90	4.20	red
921.000.002.000.778	3.90	4.20	orange
921.000.002.000.779	3.90	4.20	yellow
921.000.002.000.780	3.90	4.20	green
921.000.002.000.781	3.90	4.20	blue
921.000.002.000.782	3.90	4.20	purple
921.000.002.000.783	3.90	4.20	grey
921.000.002.000.784	3.90	4.20	white
921.000.002.000.107	3.90	4.20	green/yellow

■ standard

■ on request

Cross Section 4 qmm

Structure: 56 x 0.30 mm

ODU Part-Nr.	Wire diameter (mm)		Color
	mind.	max.	
921.000.002.000.154	3.90	4.80	black
921.000.002.000.785	3.90	4.80	brown
921.000.002.000.786	3.90	4.80	red
921.000.002.000.787	3.90	4.80	orange
921.000.002.000.788	3.90	4.80	yellow
921.000.002.000.789	3.90	4.80	green
921.000.002.000.790	3.90	4.80	blue
921.000.002.000.791	3.90	4.80	purple
921.000.002.000.792	3.90	4.80	grey
921.000.002.000.793	3.90	4.80	white
921.000.002.000.002	3.90	4.80	green/yellow

Cross Section 6 qmm

Structure: 86 x 0,295 mm

ODU Part-Nr.	Wire diameter (mm)		Color
	mind.	max.	
921.000.002.000.794	4.40	5.30	black
921.000.002.000.155	4.40	5.30	brown
921.000.002.000.795	4.40	5.30	red
921.000.002.000.796	4.40	5.30	orange
921.000.002.000.797	4.40	5.30	yellow
921.000.002.000.798	4.40	5.30	green
921.000.002.000.106	4.40	5.30	blue
921.000.002.000.799	4.40	5.30	purple
921.000.002.000.800	4.40	5.30	grey
921.000.002.000.801	4.40	5.30	white
921.000.002.000.061	4.40	5.30	green/yellow

Cross Section 10 qmm

Structure: 80 x 0,40 mm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.102	nom. 7.60	black
921.000.002.000.105	nom. 7.60	brown
921.000.002.000.802	nom. 7.60	red
921.000.002.000.803	nom. 7.60	orange
921.000.002.000.804	nom. 7.60	yellow
921.000.002.000.805	nom. 7.60	green
921.000.002.000.104	nom. 7.60	blue
921.000.002.000.806	nom. 7.60	purple
921.000.002.000.807	nom. 7.60	grey
921.000.002.000.808	nom. 7.60	white
921.000.002.000.103	nom. 7.60	green/yellow

■ standard

■ on request

H05Z-K

Structure: Cu-Wire blank, finely strand on DIN VDE 0295 kl. 5



Cross Section 0.5 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.809	2.10 – 2.60	black
921.000.002.000.810	2.10 – 2.60	brown
921.000.002.000.811	2.10 – 2.60	red
921.000.002.000.812	2.10 – 2.60	orange
921.000.002.000.813	2.10 – 2.60	yellow
921.000.002.000.814	2.10 – 2.60	green
921.000.002.000.815	2.10 – 2.60	blue
921.000.002.000.816	2.10 – 2.60	purple
921.000.002.000.817	2.10 – 2.60	grey
921.000.002.000.818	2.10 – 2.60	white
921.000.002.000.819	2.10 – 2.60	green/yellow

Cross Section 0.75 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.821	2.20 – 2.80	black
921.000.002.000.822	2.20 – 2.80	brown
921.000.002.000.823	2.20 – 2.80	red
921.000.002.000.824	2.20 – 2.80	orange
921.000.002.000.825	2.20 – 2.80	yellow
921.000.002.000.279	2.20 – 2.80	green
921.000.002.000.826	2.20 – 2.80	blue
921.000.002.000.827	2.20 – 2.80	purple
921.000.002.000.828	2.20 – 2.80	grey
921.000.002.000.829	2.20 – 2.80	white
921.000.002.000.830	2.20 – 2.80	green/yellow

Cross Section 1.0 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.831	2.40 – 2.90	black
921.000.002.000.832	2.40 – 2.90	brown
921.000.002.000.833	2.40 – 2.90	red
921.000.002.000.834	2.40 – 2.90	orange
921.000.002.000.835	2.40 – 2.90	yellow
921.000.002.000.836	2.40 – 2.90	green
921.000.002.000.837	2.40 – 2.90	blue
921.000.002.000.838	2.40 – 2.90	purple
921.000.002.000.839	2.40 – 2.90	grey
921.000.002.000.840	2.40 – 2.90	white
921.000.002.000.841	2.40 – 2.90	green/yellow

■ standard

■ on request

H07Z-K

Structure: Cu-Wire blank, finely strand on DIN VDE 0295 kl. 5



Cross Section 1.5 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.842	2.80 – 3.50	black
921.000.002.000.843	2.80 – 3.50	brown
921.000.002.000.844	2.80 – 3.50	red
921.000.002.000.845	2.80 – 3.50	orange
921.000.002.000.846	2.80 – 3.50	yellow
921.000.002.000.847	2.80 – 3.50	green
921.000.002.000.848	2.80 – 3.50	blue
921.000.002.000.849	2.80 – 3.50	purple
921.000.002.000.850	2.80 – 3.50	grey
921.000.002.000.851	2.80 – 3.50	white
921.000.002.000.852	2.80 – 3.50	green/yellow

Cross Section 2.5 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.612	3.80 – 4.30	black
921.000.002.000.853	3.80 – 4.30	brown
921.000.002.000.854	3.80 – 4.30	red
921.000.002.000.855	3.80 – 4.30	orange
921.000.002.000.856	3.80 – 4.30	yellow
921.000.002.000.857	3.80 – 4.30	green
921.000.002.000.858	3.80 – 4.30	blue
921.000.002.000.859	3.80 – 4.30	purple
921.000.002.000.860	3.80 – 4.30	grey
921.000.002.000.861	3.80 – 4.30	white
921.000.002.000.862	3.80 – 4.30	green/yellow

Cross Section 4 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.863	3.90 – 4.90	black
921.000.002.000.864	3.80 – 4.30	brown
921.000.002.000.865	3.80 – 4.30	red
921.000.002.000.866	3.80 – 4.30	orange
921.000.002.000.867	3.80 – 4.30	yellow
921.000.002.000.868	3.80 – 4.30	green
921.000.002.000.869	3.80 – 4.30	blue
921.000.002.000.870	3.80 – 4.30	purple
921.000.002.000.871	3.80 – 4.30	grey
921.000.002.000.872	3.80 – 4.30	white
921.000.002.000.873	3.80 – 4.30	green/yellow

■ standard

■ on request

Cross Section 6 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.613	5.80 – 6.50	black
921.000.002.000.874	5.80 – 6.50	brown
921.000.002.000.875	5.80 – 6.50	red
921.000.002.000.876	5.80 – 6.50	orange
921.000.002.000.877	5.80 – 6.50	yellow
921.000.002.000.878	5.80 – 6.50	green
921.000.002.000.879	5.80 – 6.50	blue
921.000.002.000.880	5.80 – 6.50	purple
921.000.002.000.881	5.80 – 6.50	grey
921.000.002.000.882	5.80 – 6.50	white
921.000.002.000.614	5.80 – 6.50	green/yellow

Cross Section 10 qmm

ODU Part-Nr.	Wire diameter (mm)	Color
921.000.002.000.616	6.50 – 7.30	black
921.000.002.000.883	6.50 – 7.30	brown
921.000.002.000.884	6.50 – 7.30	red
921.000.002.000.885	6.50 – 7.30	orange
921.000.002.000.886	6.50 – 7.30	yellow
921.000.002.000.887	6.50 – 7.30	green
921.000.002.000.888	6.50 – 7.30	blue
921.000.002.000.889	6.50 – 7.30	purple
921.000.002.000.890	6.50 – 7.30	grey
921.000.002.000.891	6.50 – 7.30	white
921.000.002.000.615	6.50 – 7.30	green/yellow

■ standard

■ on request

Control Cable – PVC – not shielded UL/cUL LIYY



	without UL-certification	with UL-certification
Conductor:	Cu-Wire, blanc	Cu-Wire, tinned
Insulation:	AP-PVC	AP-PVC
Color Code:	DIN 47100	IC-Code
Stranding:	wires in layers	wires in layers
Outer Sheathing:	Special PVC	Special PVC
Color Sheathing:	grey (RAL 7001)	black (RAL 9005)
Labeling:		printing + label
Insulation Resistance:	min. 100 MΩ x km on +20 °C	min. 100 MΩ x km on +20 °C
Operating voltage:	300 V	300 V
Test voltage:	1.500 V	1.500 V
Temperature area – resting:	- 30 up to + 80 °C	- 30 up to + 80 °C
Temperature area – in action:	- 15 up to + 80 °C	- 15 up to + 80 °C
Bending radius:	15 x AD	15 x AD



Cross Section 0.08 qmm / AWG 28

Wire Structure:	10 x 0.10 mm Cu blanc	UL-Style:	2464/1061
Resistance:	max. 223 Ω/km	Wire Structure:	7 x 0.127 mm Cu tinned
		Resistance:	max. 215.2 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.273	2	2.80	0.90	0.38
921.000.001.000.274	3	3.00	0.90	0.38
921.000.001.000.275	4	3.20	0.90	0.38
921.000.001.000.462	9	4.60	0.90	0.38
921.000.001.000.463	10	5.00	0.90	0.38
921.000.001.000.464	14	5.60	0.90	0.38

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.502	2	3.60	0.90	0.38
921.000.001.000.503	3	3.70	0.90	0.38
921.000.001.000.504	4	3.90	0.90	0.38
921.000.001.000.265	6	4.45	0.90	0.38
921.000.001.000.266	7	4.45	0.90	0.38
921.000.001.000.267	10	5.30	0.90	0.38
921.000.001.000.268	14	5.70	0.90	0.38

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 0.14 qmm / AWG 26

Wire Structure: 18 x 0.10 mm Cu blanc
Resistance: max. 138 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.16 mm Cu tinned
Resistance: max. 154 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.570	2	3.30	1.00	0.48
921.000.001.000.571	4	3.70	1.00	0.48
921.000.001.000.572	5	4.00	1.00	0.48
921.000.001.000.465	6	4.40	1.00	0.48
921.000.001.000.466	7	4.40	1.00	0.48
921.000.001.000.467	8	4.80	1.00	0.48
921.000.001.000.573	12	5.60	1.00	0.48
921.000.001.000.574	14	6.00	1.00	0.48
921.000.001.000.575	16	6.30	1.00	0.48
921.000.001.000.576	18	6.50	1.00	0.48
921.000.001.000.577	20	7.20	1.00	0.48
921.000.001.000.578	25	7.70	1.00	0.48
921.000.001.000.579	26	8.70	1.00	0.48
921.000.001.000.580	30	8.60	1.00	0.48
921.000.001.000.581	40	9.60	1.00	0.48

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.460	2	3.70	1.00	0.48
921.000.001.000.224	4	4.00	1.00	0.48
921.000.001.000.225	5	4.40	1.00	0.48
921.000.001.000.226	6	4.60	1.00	0.48
921.000.001.000.227	7	4.80	1.00	0.48
921.000.001.000.228	8	5.10	1.00	0.48
921.000.001.000.229	12	5.80	1.00	0.48
921.000.001.000.230	14	6.20	1.00	0.48
921.000.001.000.231	16	6.50	1.00	0.48
921.000.001.000.232	18	6.80	1.00	0.48
921.000.001.000.233	19	6.80	1.00	0.48
921.000.001.000.234	20	7.10	1.00	0.48
921.000.001.000.235	22	7.40	1.00	0.48
921.000.001.000.461	25	7.80	1.00	0.48
921.000.001.000.236	26	7.80	1.00	0.48
921.000.001.000.237	30	8.20	1.00	0.48
921.000.001.000.238	40	9.20	1.00	0.48

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

Cross Section 0.34 qmm / AWG 22

Wire Structure: 7 x 0.25 mm Cu blanc
Resistance: max. 53 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.25 mm Cu tinned
Resistance: max. 53 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.569	4	4.80	1.55	0.75
921.000.001.000.558	5	5.50	1.55	0.75

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.239	2	4.30	1.30	0.75
921.000.001.000.240	3	4.40	1.30	0.75
921.000.001.000.241	4	4.80	1.30	0.75
921.000.001.000.242	5	5.10	1.30	0.75
921.000.001.000.243	6	5.70	1.30	0.75
921.000.001.000.244	7	5.70	1.30	0.75
921.000.001.000.245	8	6.20	1.30	0.75
921.000.001.000.246	10	6.90	1.30	0.75
921.000.001.000.247	12	7.20	1.30	0.75
921.000.001.000.248	14	7.60	1.30	0.75
921.000.001.000.249	16	8.00	1.30	0.75
921.000.001.000.250	18	8.20	1.30	0.75
921.000.001.000.251	19	8.20	1.30	0.75
921.000.001.000.252	20	8.80	1.30	0.75
921.000.001.000.253	22	9.20	1.30	0.75
921.000.001.000.254	26	9.80	1.30	0.75
921.000.001.000.255	30	10.30	1.30	0.75
921.000.001.000.256	40	11.30	1.30	0.75

Cross Section 0.50 qmm / AWG 20

Wire Structure: 16 x 0.20 mm Cu blanc
Resistance: max. 39 Ω/km

UL-Style: 2464/1061
Wire Structure: 16 x 0.20 mm Cu tinned
Resistance: max. 33 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.568	2	4.70	1.80	0.96
921.000.001.000.564	3	5.00	1.80	0.96

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.257	2	4.60	1.50	0.96
921.000.001.000.258	3	4.80	1.50	0.96
921.000.001.000.259	4	5.40	1.50	0.96
921.000.001.000.260	5	5.80	1.50	0.96
921.000.001.000.261	6	6.10	1.50	0.96
921.000.001.000.262	7	6.40	1.50	0.96
921.000.001.000.263	8	6.80	1.50	0.96
921.000.001.000.264	10	7.60	1.50	0.96

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 1.00 qmm / AWG 18

UL - Style: 2464/1061
 Wire Structure: 19 x 0.254 mm Cu tinned
 Resistance: max. 17.9 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.269	3	5.60	1.80	1.27
921.000.001.000.270	7	8.60	1.80	1.27

Cross Section 2.5 qmm / AWG 14

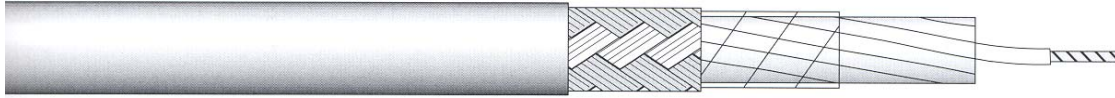
UL - Style: 2517/1569
 Wire Structure: 19 x 0.375 mm Cu blanc
 Resistance: max. 8.8 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.271	2	7.60	3,00	2.06
921.000.001.000.272	4	8.80	3,00	2.06

* AD Ma = Outer diameter sheathing
 AD Li = Outer diameter wire
 AD Dr = Outer diameter conductor

Control Cable – PVC - shielded UL/cUL LIYCY



	without UL-certification	with UL-certification
Conductor	Cu-Wire, blanc	Cu-Wire, tinned
Insulation:	SR-PVC	SR-PVC
Color Code:	DIN 47100	IC-Code
Stranding:	wires in layers, plastic cover as wire cover	wires in layers plastic cover as wire cover
Shielding:	tinned copper netting 0.10 mm diameter wire	tinned copper netting 0.10 mm diameter wire
Outer sheathing:	Special PVC	Special PVC
Color sheathing:	grey (RAL 7001)	black (RAL 9005)
Labeling:		printed + label
Insulation Resistance:	min. 100 MΩ x km on +20 °C	min. 100 MΩ x km on +20 °C
Operating voltage:	300 V	300 V
Test voltage:	1.500 V	1.500 V
Temperature area - resting:	- 30 up to + 80 °C	- 30 up to + 80 °C
Temperature area – in action:	- 15 up to + 80 °C	- 15 up to + 80 °C
Bending radius:	15 x AD	15 X AD



Cross Section 0.08 qmm / AWG 28

Wire Structure:	10 x 0.10 mm Cu blanc	UL-Style:	2464/1061
Resistance:	max. 223 Ω/km	Wire Structure:	7 x 0.127 mm Cu tinned
		Resistance:	max. 215 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.563	1x2	3.40	0.90	0.38
921.000.001.000.583	3	3.40	0.90	0.38
921.000.001.000.562	2x2	4.60	0.90	0.38
921.000.001.000.597	3x2	4.90	0.90	0.38
921.000.001.000.561	4x2	5.90	0.90	0.38
921.000.001.000.560	5x2	6.00	0.90	0.38
921.000.001.000.559	7x2	6.90	0.90	0.38

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.496	1x2	4.00	0.90	0.38
921.000.001.000.458	3	4.10	0.90	0.38
921.000.001.000.497	2x2	5.30	0.90	0.38
921.000.001.000.498	3x2	5.50	0.90	0.38
921.000.001.000.499	4x2	5.90	0.90	0.38
921.000.001.000.500	5x2	6.40	0.90	0.38
921.000.001.000.501	7x2	6.90	0.90	0.38

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 0.14 qmm / AWG 26

Wire Structure: 18 x 0.10 mm Cu blanc
Resistance: max. 138 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.16 mm Cu tinned
Resistance: max. 130 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.584	4	4.10	1.05	0.50
921.000.001.000.585	5	4.40	1.05	0.50
921.000.001.000.586	6	4.70	1.05	0.50
921.000.001.000.587	7	4.70	1.05	0.50
921.000.001.000.588	8	5.00	1.05	0.50
921.000.001.000.589	12	6.30	1.05	0.50
921.000.001.000.590	14	6.70	1.05	0.50
921.000.001.000.591	16	7.00	1.05	0.50
921.000.001.000.592	18	7.30	1.05	0.50
921.000.001.000.565	19	7.450	1.05	0.50
921.000.001.000.593	20	7.60	1.05	0.50
921.000.001.000.566	22	7.90	1.05	0.50
921.000.001.000.567	26	8.50	1.05	0.50
921.000.001.000.594	30	8.70	1.05	0.50
921.000.001.000.595	40	9.60	1.05	0.50

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.335	4	4.70	1.00	0.48
921.000.001.000.336	5	4.80	1.00	0.48
921.000.001.000.337	6	5.20	1.00	0.48
921.000.001.000.338	7	5.10	1.00	0.48
921.000.001.000.339	8	5.60	1.00	0.48
921.000.001.000.340	12	6.60	1.00	0.48
921.000.001.000.341	14	6.70	1.00	0.48
921.000.001.000.342	16	7.00	1.00	0.48
921.000.001.000.343	18	7.30	1.00	0.48
921.000.001.000.344	19	7.40	1.00	0.48
921.000.001.000.345	20	7.70	1.00	0.48
921.000.001.000.346	22	7.70	1.00	0.48
921.000.001.000.347	26	8.40	1.00	0.48
921.000.001.000.348	30	8.80	1.00	0.48
921.000.001.000.349	40	9.80	1.00	0.48

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

Cross Section 0,34 qmm / AWG 22

Wire Structure: 7 x 0.25 mm Cu blanc
Resistance: max. 55 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.25 mm Cu tinned
Resistance: max. 58 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.470	2	4.90	1.50	0.76
921.000.001.000.471	3	5.00	1.50	0.76
921.000.001.000.472	4	5.50	1.50	0.76
921.000.001.000.473	5	6.00	1.50	0.76
921.000.001.000.474	6	6.40	1.50	0.76
921.000.001.000.475	7	6.50	1.50	0.76
921.000.001.000.476	8	7.00	1.50	0.76
921.000.001.000.477	10	7.80	1.50	0.76
921.000.001.000.478	12	8.30	1.50	0.76
921.000.001.000.479	14	8.70	1.50	0.76
921.000.001.000.480	16	9.20	1.50	0.76
921.000.001.000.481	18	9.40	1.50	0.76
921.000.001.000.482	19	9.60	1.50	0.76
921.000.001.000.483	20	10.40	1.50	0.76
921.000.001.000.484	22	10.80	1.50	0.76
921.000.001.000.485	26	11.30	1.50	0.76
921.000.001.000.486	30	11.90	1.50	0.76
921.000.001.000.487	40	13.30	1.50	0.76

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.350	2	4.80	1.30	0.75
921.000.001.000.351	3	5.00	1.30	0.75
921.000.001.000.352	4	5.40	1.30	0.75
921.000.001.000.353	5	5.80	1.30	0.75
921.000.001.000.354	6	6.20	1.30	0.75
921.000.001.000.355	7	6.20	1.30	0.75
921.000.001.000.356	8	6.80	1.30	0.75
921.000.001.000.357	10	7.90	1.30	0.75
921.000.001.000.358	12	8.30	1.30	0.75
921.000.001.000.359	14	8.00	1.30	0.75
921.000.001.000.360	16	8.60	1.30	0.75
921.000.001.000.361	18	8.90	1.30	0.75
921.000.001.000.362	19	8.80	1.30	0.75
921.000.001.000.363	20	9.40	1.30	0.75
921.000.001.000.364	22	9.80	1.30	0.75
921.000.001.000.365	26	10.50	1.30	0.75
921.000.001.000.366	30	11.00	1.30	0.75
921.000.001.000.367	40	12.10	1.30	0.75

Cross Section 0.50 qmm / AWG 20

Wire Structure: 16 x 0.20 mm Cu blanc
Resistance: max. 37.8 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.32 mm Cu tinned
Resistance: max. 38 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.488	2	5.40	1.80	0.96
921.000.001.000.489	3	5.70	1.80	0.96
921.000.001.000.490	4	6.20	1.80	0.96
921.000.001.000.491	5	6.80	1.80	0.96
921.000.001.000.492	6	7.50	1.80	0.96
921.000.001.000.493	7	7.50	1.80	0.96
921.000.001.000.494	8	7.70	1.80	0.96
921.000.001.000.495	10	8.70	1.80	0.96

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.368	2	5.10	1.50	0.96
921.000.001.000.369	3	5.30	1.50	0.96
921.000.001.000.370	4	5.70	1.50	0.96
921.000.001.000.371	5	6.20	1.50	0.96
921.000.001.000.372	6	6.60	1.50	0.96
921.000.001.000.373	7	6.65	1.50	0.96
921.000.001.000.374	8	7.70	1.50	0.96
921.000.001.000.375	10	8.20	1.50	0.96

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 1.00 qmm / AWG 18

Wire Structure: 32 x 0.20 mm Cu blanc
Resistance: max. 19.5 Ω/km

UL-Style: 2464/1061
Wire Structure: 7 x 0.254 mm Cu tinned
Resistance: max. 17.9 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.468	3	6.40	2.10	1.20
921.000.001.000.469	7	8.90	2.10	1.20

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.376	3	6.10	1.80	1.27
921.000.001.000.377	7	7.90	1.80	1.27

Cross Section 2.5 qmm / AWG 14

Wire Structure: 50 x 0.25 mm Cu blanc
Resistance: max. 7.98 Ω/km

UL-Style: 2464/1061
Wire Structure: 19 x 0.254 mm Cu tinned
Resistance: max. 8.3 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.557	2	9.70	3.60	1.90
921.000.001.000.556	4	11.30	3.60	1.90

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.378	2	8.0	2.9	1.9
921.000.001.000.379	4	9.3	2.9	1.9

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

Control Cable – Power PUR – not shielded LI12Y11Y



	without UL-certification	with UL-certification
Conductor:	Cu-Wire, blanc	Cu-Wire, blanc
Isolation:	LIH – 12Y	LIH – 12Y
Color Code:	acc. DIN 47100	acc. DIN 47100
Stranding:	Wires in layers	Wires in layers
Taped wrapping:	Polyester fleece	Polyester fleece
Outer sheathing:	PUR – 11Y	PUR – 11Y
Color sheathing:	black (RAL 9005)	black (RAL 9005)
Insulation resistance:	min. 100 MΩ x km on +20 °C	min. 100 MΩ x km on +20°C
Operating voltage:	max. 300 V	max. 300 V
Test Voltage:	1.500 V	1.500 V
Temperature area - resting:	- 50 up to + 80 °C	- 50 up to + 80 °C
Temperature area – in action:	- 40 up to + 80 °C	- 40 up to + 80 °C
Bending radius:	12 x AD >> bendable	12 x AD >> bendable



Cross Section 0.08 qmm / AWG 28

Wire Structure:	10 x 0.10 mm Cu blanc	UL-Style:	20233/10042
Resistance:	max. 237 Ω / km	Wire Structure:	10 x 0.10 Cu blanc
		Resistance:	max. 237 Ω / km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr
921.000.001.000.380	2	2,90	0,80	0,38
921.000.001.000.381	3	3,05	0,80	0,38
921.000.001.000.382	4	3,25	0,80	0,38

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr
921.000.001.000.383	6	4.40	0.90	0.38
921.000.001.000.384	7	4.70	0.90	0.38
921.000.001.000.385	10	5.25	0.90	0.38
921.000.001.000.386	14	5.70	0.90	0.38

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 0.14 qmm / AWG 26

UL-Style: 20233/10042
 Wire Structure: 18 x 0.10 mm Cu blanc
 Resistance: max. 138 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.387	4	4.00	0.95	0.49
921.000.001.000.388	5	4.30	0.95	0.49
921.000.001.000.389	6	4.55	0.95	0.49
921.000.001.000.390	7	4.85	0.95	0.49
921.000.001.000.391	8	5.25	0.95	0.49
921.000.001.000.392	12	5.70	0.95	0.49
921.000.001.000.393	14	5.90	0.95	0.49
921.000.001.000.394	16	6.10	0.95	0.49
921.000.001.000.395	18	6.45	0.95	0.49
921.000.001.000.396	19	6.65	0.95	0.49
921.000.001.000.397	20	6.70	0.95	0.49
921.000.001.000.398	22	7.25	0.95	0.49
921.000.001.000.399	26	7.40	0.95	0.49
921.000.001.000.400	30	7.70	0.95	0.49
921.000.001.000.401	40	8.75	0.95	0.49

* AD Ma = Outer diameter sheathing
 AD Li = Outer diameter wire
 AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 0.34 qmm / AWG 22

UL-Style: 20233/10042
 Wire Structure: 19 x 0.15 mm Cu blanc
 Resistance: max. 56 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.402	2	4.20	1.30	0.75
921.000.001.000.403	3	4.40	1.30	0.75
921.000.001.000.404	4	4.75	1.30	0.75
921.000.001.000.405	5	5.10	1.30	0.75
921.000.001.000.406	6	5.45	1.30	0.75
921.000.001.000.407	7	5.85	1.30	0.75
921.000.001.000.408	8	6.35	1.30	0.75
921.000.001.000.409	10	6.60	1.30	0.75
921.000.001.000.410	12	6.95	1.30	0.75
921.000.001.000.411	14	7.20	1.30	0.75
921.000.001.000.412	16	7.45	1.30	0.75
921.000.001.000.413	18	7.95	1.30	0.75
921.000.001.000.414	19	8.00	1.30	0.75
921.000.001.000.415	20	8.20	1.30	0.75
921.000.001.000.416	22	8.95	1.30	0.75
921.000.001.000.417	26	9.20	1.30	0.75
921.000.001.000.418	30	9.60	1.30	0.75
921.000.001.000.419	40	10.95	1.30	0.75

■ standard

■ on request

Cross Section 0.50 qmm / AWG 20

UL-Style: 20233/10042
 Wire Structure: 28 x 0.15 Cu blanc
 Resistance: max. 39 Ω / km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.420	2	4.70	1.50	0.96
921.000.001.000.421	3	4.95	1.50	0.96
921.000.001.000.422	4	5.35	1.50	0.96
921.000.001.000.423	5	5.75	1.50	0.96
921.000.001.000.424	6	6.20	1.50	0.96
921.000.001.000.425	7	6.25	1.50	0.96
921.000.001.000.426	8	7.25	1.50	0.96
921.000.001.000.427	10	7.55	1.50	0.96

Cross Section 1 qmm / AWG 18

UL-Style: 20233/10042
 Wire Structure: 32 x 0.20 Cu blanc
 Resistance: 19.5 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.428	3	5.95	1.95	1.34
921.000.001.000.429	7	8.15	1.95	1.34

Cross Section 2.5 qmm / AWG 14

UL-Style: 20233/10042
 Wire Structure: 50 x 0.25 Cu blanc
 Resistance: 7.98 Ω/km

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.430	2	7.30	2.80	2.05
921.000.001.000.431	4	8.45	2.80	2.05

* AD Ma = Outer diameter sheathing
 AD Li = Outer diameter wire
 AD Dr = Outer diameter conductor

■ standard

■ on request

Control Cable – Power PUR - shielded LI12YD11Y



	without UL-certification	with UL-certification
Conductor:	Cu-Wire, blanc	Cu-Wire, blanc
Insulation:	LIH – 12Y	LIH – 12Y
Color Code:	acc. DIN 47100	acc. DIN 47100
Stranding:	Wires in layers	Wires in layers
Taped wrapping:	Polyester fleece	Polyester fleece
Shielding:	turn shield tinned, 90 % encrustation	turn shield tinned, 90% encrustation
Outer sheathing:	PUR – 11Y	PUR – 11Y
Color sheathing:	black (RAL 9005)	black (RAL 9005)
Insulation Resistance:	min. 100 MΩ x km on +20 °C	min. 100 MΩ x km on + 20°C
Operating voltage:	max. 300 V	max. 300 V
Test voltage:	1.500 V	1.500 V
Temperature area - resting:	- 50 up to + 80 °C	- 50 up to + 80°C
Temperature area – in action:	- 40 up to + 80 °C	- 40 up to + 80 °C
Bending radius:	12 x AD >> bendable	12 x AD >> bendable



Cross Section 0.08 qmm / AWG 28

Wire Structure:	10 x 0.10 mm Cu blanc	UL-Style:	10 x 0.10 Cu blanc
Resistance:	max. 232 Ω / km	Resistance:	max. 237 Ω / km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.276	2	3.10	0.80	0.40
921.000.001.000.277	3	3.25	0.80	0.40
921.000.001.000.278	4	3.40	0.80	0.40

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.598	2	3.80	0.90	0.40
921.000.001.000.599	3	4.00	0.90	0.40
921.000.001.000.600	4	4.20	0.90	0.40
921.000.001.000.279	6	4.65	0.90	0.40
921.000.001.000.280	7	4.95	0.90	0.40
921.000.001.000.281	10	5.50	0.90	0.40
921.000.001.000.282	14	5.95	0.90	0.40

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 0.14 qmm / AWG 26

Wire Structure: 18 x 0.10 mm Cu blanc
Resistance: max. 138 Ω/km

UL-Style: 20233/10042
Wire Structure: 18 x 0.10 mm Cu blanc
Resistance: max. 138 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.533	4	3.60	0.90	0.50
921.000.001.000.534	5	3.90	0.90	0.50
921.000.001.000.535	6	4.20	0.90	0.50
921.000.001.000.536	7	4.50	0.90	0.50
921.000.001.000.537	8	4.80	0.90	0.50
921.000.001.000.538	12	5.60	0.90	0.50
921.000.001.000.539	14	5.80	0.90	0.50
921.000.001.000.540	16	5.90	0.90	0.50
921.000.001.000.541	18	6.30	0.90	0.50
921.000.001.000.542	19	6.50	0.90	0.50
921.000.001.000.543	20	6.50	0.90	0.50
921.000.001.000.544	22	7.10	0.90	0.50
921.000.001.000.545	26	7.20	0.90	0.50
921.000.001.000.546	30	7.50	0.90	0.50
921.000.001.000.547	40	8.60	0.90	0.50

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.283	4	4.20	0.95	0.50
921.000.001.000.284	5	4.50	0.95	0.50
921.000.001.000.285	6	4.75	0.95	0.50
921.000.001.000.286	7	5.05	0.95	0.50
921.000.001.000.287	8	5.45	0.95	0.50
921.000.001.000.288	12	5.90	0.95	0.50
921.000.001.000.289	14	6.10	0.95	0.50
921.000.001.000.290	16	6.30	0.95	0.50
921.000.001.000.291	18	6.65	0.95	0.50
921.000.001.000.292	19	6.85	0.95	0.50
921.000.001.000.293	20	6.90	0.95	0.50
921.000.001.000.294	22	7.45	0.95	0.50
921.000.001.000.295	26	7.60	0.95	0.50
921.000.001.000.296	30	7.90	0.95	0.50
921.000.001.000.297	40	8.95	0.95	0.50

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

Cross Section 0.34 qmm / AWG 22

Wire Structure: 19 x 0.15 mm Cu blanc
Resistance: max. 56 Ω/km

UL-Style: 20233/10042
Wire Structure: 19 x 0.15 mm Cu blanc
Resistance: max. 56 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.513	2	4.00	1.30	0.78
921.000.001.000.514	3	4.30	1.30	0.78
921.000.001.000.515	4	4.60	1.30	0.78
921.000.001.000.516	5	5.00	1.30	0.78
921.000.001.000.517	6	5.40	1.30	0.78
921.000.001.000.518	7	5.80	1.30	0.78
921.000.001.000.519	8	6.70	1.30	0.78
921.000.001.000.520	10	7.10	1.30	0.78
921.000.001.000.521	12	7.20	1.30	0.78
921.000.001.000.522	14	7.30	1.30	0.78
921.000.001.000.523	16	7.55	1.30	0.78
921.000.001.000.524	18	8.10	1.30	0.78
921.000.001.000.525	19	8.30	1.30	0.78
921.000.001.000.526	20	8.30	1.30	0.78
921.000.001.000.529	22	9.30	1.30	0.78
921.000.001.000.530	26	9.40	1.30	0.78
921.000.001.000.531	30	10.00	1.30	0.78
921.000.001.000.532	40	11.60	1.30	0.78

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.298	2	4.40	1.30	0.75
921.000.001.000.299	3	4.60	1.30	0.75
921.000.001.000.300	4	4.95	1.30	0.75
921.000.001.000.301	5	5.30	1.30	0.75
921.000.001.000.302	6	5.65	1.30	0.75
921.000.001.000.303	7	6.05	1.30	0.75
921.000.001.000.304	8	6.55	1.30	0.75
921.000.001.000.305	10	6.80	1.30	0.75
921.000.001.000.306	12	7.15	1.30	0.75
921.000.001.000.307	14	7.45	1.30	0.75
921.000.001.000.308	16	7.65	1.30	0.75
921.000.001.000.309	18	8.15	1.30	0.75
921.000.001.000.310	19	8.40	1.30	0.75
921.000.001.000.311	20	8.40	1.30	0.75
921.000.001.000.312	22	9.15	1.30	0.75
921.000.001.000.313	26	9.40	1.30	0.75
921.000.001.000.314	30	9.80	1.30	0.75
921.000.001.000.315	40	11.15	1.30	0.75

Cross Section 0.50 qmm / AWG 20

Wire Structure: 28 x 0.15 mm Cu blanc
Resistance: max. 39 Ω/km

UL-Style: 20233/10042
Wire Structure: 28 x 0.15 mm Cu blanc
Resistance: max. 39 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.505	2	4.50	1.50	0.90
921.000.001.000.506	3	4.70	1.50	0.90
921.000.001.000.507	4	5.10	1.50	0.90
921.000.001.000.508	5	5.50	1.50	0.90
921.000.001.000.509	6	6.30	1.50	0.90
921.000.001.000.510	7	6.80	1.50	0.90
921.000.001.000.511	8	7.50	1.50	0.90
921.000.001.000.512	10	8.10	1.50	0.90

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.316	2	4.90	1.50	0.96
921.000.001.000.317	3	5.15	1.50	0.96
921.000.001.000.318	4	5.55	1.50	0.96
921.000.001.000.319	5	5.95	1.50	0.96
921.000.001.000.320	6	6.40	1.50	0.96
921.000.001.000.321	7	6.85	1.50	0.96
921.000.001.000.322	8	7.45	1.50	0.96
921.000.001.000.323	10	7.75	1.50	0.96

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

■ standard

■ on request

Cross Section 1.00 qmm / AWG 18

Wire Structure: 32 x 0.20 mm Cu blanc
Resistance: max. 20 Ω/km

UL-Style: 20233/10042
Wire Structure: 32 x 0.20 mm Cu blanc
Resistance: max. 19.5 Ω/km

without UL-certification

ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.552	3	6.50	1.95	1.20
921.000.001.000.553	7	8.25	1.95	1.20

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.324	3	6.15	1.95	1.34
921.000.001.000.325	7	8.35	1.95	1.34

Cross Section 2.5 qmm / AWG 14

Wire Structure: 32 x 0.20 mm Cu blanc
Resistance: max. 8 Ω/km

UL-Style: 20233/10042
Wire Structure: 50 x 0.25 mm Cu blanc
Resistance: max. 7.98 Ω/km

without UL-certification

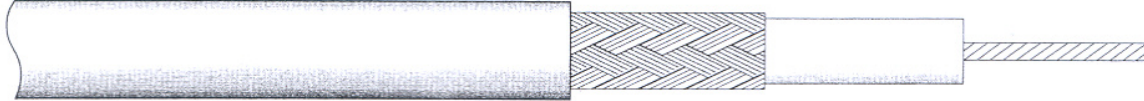
ODU Part-No.	Wire number	Outer Ø (mm)*		
		AD Ma	AD Li	AD Dr.
921.000.001.000.554	2	7.40	1.95	2.00
921.000.001.000.555	4	8.60	1.95	2.00

with UL-certification

ODU Part-No.	Wire number	Outer Ø (mm) *		
		AD Ma	AD Li	AD Dr.
921.000.001.000.326	2	7.50	2.80	2.05
921.000.001.000.327	4	9.65	2.80	2.05

* AD Ma = Outer diameter sheathing
AD Li = Outer diameter wire
AD Dr = Outer diameter conductor

Coax Cables



ODU Part-Nr.	RG-Type	Impedance (SL)	Lead structure (mm)	Outer diameter (mm)	Wire diameter (mm)	Material Sheathing	Color Sheathing
921.000.001.000.617	RG 58	$50 \pm 3 \Omega$	19 x 0.182	4.95 ± 0.10	2.95 ± 0.10	PVC unleaded	black
921.000.001.000.049	RG 69	$75 \pm 5 \Omega$	1 x 0,58	$6,20 \pm 0,20$	$3,50 \pm 0,10$	PVC unleaded	black
921.000.001.000.448	RG 178		7 x 0.10	1.80 ± 0.10	0.84 ± 0.15	FEP	white
921.000.001.000.066	RG 179		7 x 0.10	2.54	1.60	FEP – 6Y	transparent
921.000.001.000.117	RG 187	$75 \pm 3 \Omega$	7 x 0.102	2.69	1.60	PTFE 5Y	white
921.000.001.000.156	RG 216	$75 \pm 3 \Omega$	1 x 1.20	10.80 ± 0.10	1.20	PVC	black
921.000.001.000.606	RG 223/4	$50 \pm 3 \Omega$	1 x 0.90	5.20 ± 0.20	2.95 ± 0.10	PVC	black
921.000.001.000.143	RG 174	$50 \pm 3 \Omega$	7 x 0.16	2.70 ± 0.15	1.50 ± 0.10	PVC	black

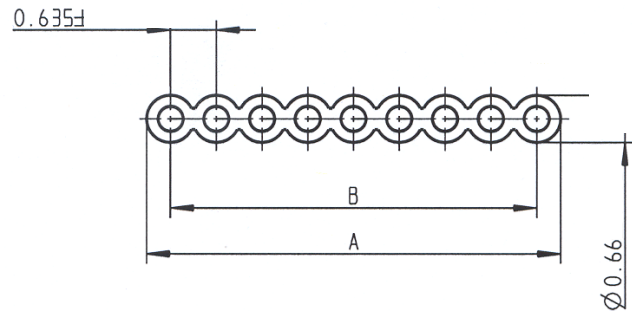
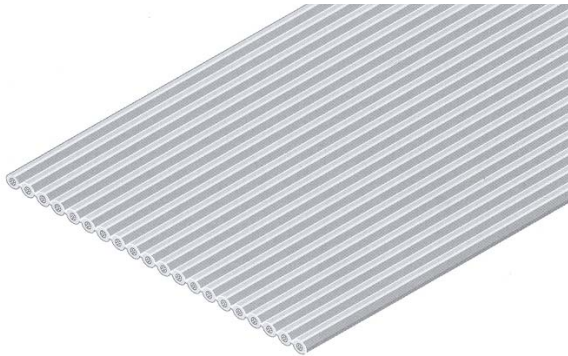
■ standard

■ on request

Ribbon cable

AWG 30, Grid 0.635 mm

Color: grey



Cross section:	0,06 mm ²
Conductor diameter:	0,28 mm
Conductor design:	7 strands of \varnothing 0.101 mm
Test voltage:	1.500 V
Operating voltage:	150 V max
Current load:	ca. 1 A
Resistance:	335 Ω /km max.
Insulation resistance:	20 m Ω x km
Capacity at 1 kHz symmetrical*	GSG ca. 90 pF/m
Capacity at 1 kHz not symmetrical*:	A/A ca. 50 pF/m
Characteristic Impedance symmetrical*:	GSG ca. 80 Ω
Characteristic Impedance not symmetrical*:	A/A ca. 130 Ω
Operating Temperature:	-20 °C bis +105 °C
Conductor:	Cu-Wire tinned, (AWG 30)
Insulation:	Special PVC-P, 105°C
	Color grey with red black edge mark
	Flammability rating VDE 0472, § 804 and UL
	Shore Hardness A: 94



* = Standard values

Pos.	ODU Part-No.	Dim A	Dim B	Tolerance Dim A & B
09	921.659.031.009.000	5,72	5,08	+/- 0,15
10	921.659.031.010.000	6,35	5,72	+/- 0,15
14	921.659.031.014.000	8,89	8,26	+/- 0,15
15	921.659.031.015.000	9,53	8,86	+/- 0,15
16	921.659.031.016.000	10,16	9,53	+/- 0,15
20	921.659.031.020.000	12,70	12,07	+/- 0,15
25	921.659.031.025.000	15,88	15,24	+/- 0,15
26	921.659.031.026.000	16,51	15,88	+/- 0,15
34	921.659.031.034.000	19,05	18,42	+/- 0,15
37	921.659.031.037.000	21,59	20,96	+/- 0,15
40	921.659.031.040.000	23,50	22,86	+/- 0,15
50	921.659.031.050.000	25,40	24,77	+/- 0,15
60	921.659.031.060.000	31,75	31,12	+/- 0,15
64	921.659.031.064.000	38,10	37,47	+/- 0,15

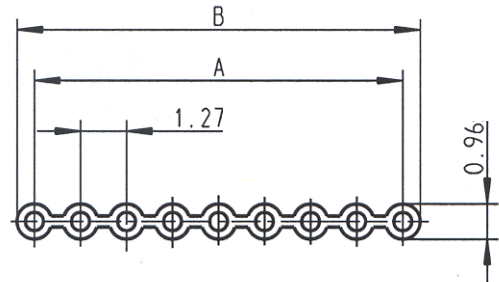
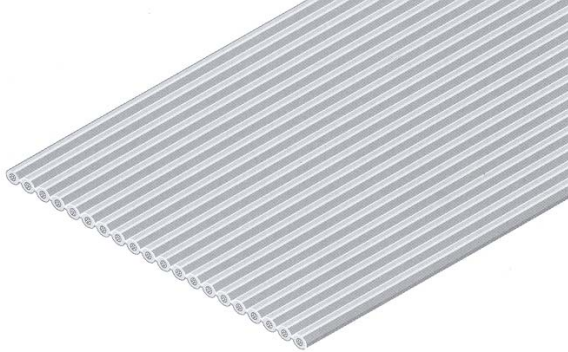
■ standard

■ on request

Ribbon cable

AWG 28, Grid 1.27 mm

Color: grey



Cross Section:	ca. 0.09 mm ²
Conductor diameter:	ca. 0.39 mm
Conductor design:	7 strands of \varnothing 0.127 mm
Test voltage:	2.000 V
Operating voltage:	300 V max
Current load:	ca. 1 A
Resistance:	230 Ω /km max.
Insulation resistance:	> 20 m Ω x km
Capacity (1kHz) GSG:	45 pF/m
Inductance:	0,46 μ H/m
Impedance (1MHz) GSG	104 Ω
Crosstalk near end (1MHz)	60 dB
Crosstalk far end (1MHz)	50 dB
Operating temperature:	-20 °C up to +105 °C
Conductor:	Cu-strands, tinned, (AWG 28)
Insulation:	Special PVC, similar Y18 acc. VDE 0207; Color grey with blue black edge mark Flammability rating VDE 0472, § 804 and UL Shore Hardness A: 90 +/- 5



Pos.	ODU Part-No.	Dim A	Dim B	Tolerance Dim A & B
09	921.659.016.009.000	10,16	11,43	+/- 0,2
10	921.659.016.010.000	11,43	12,70	+/- 0,2
14	921.659.016.014.000	16,51	17,78	+/- 0,2
15	921.659.016.015.000	17,78	19,05	+/- 0,2
16	921.659.016.016.000	19,05	20,32	+/- 0,2
20	921.659.016.020.000	24,13	25,40	+/- 0,2
25	921.659.016.025.000	30,48	31,75	+/- 0,2
26	921.659.016.026.000	31,75	33,02	+/- 0,2
34	921.659.016.034.000	41,91	43,18	+/- 0,3
37	921.659.016.037.000	45,72	46,99	+/- 0,3
40	921.659.016.040.000	49,53	50,80	+/- 0,3
50	921.659.016.050.000	62,23	63,50	+/- 0,3
60	921.659.016.060.000	74,93	76,20	+/- 0,3
64	921.659.016.064.000	80,01	81,28	+/- 0,4

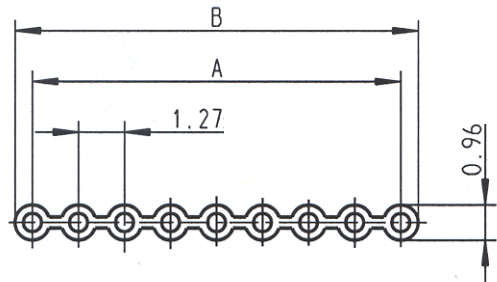
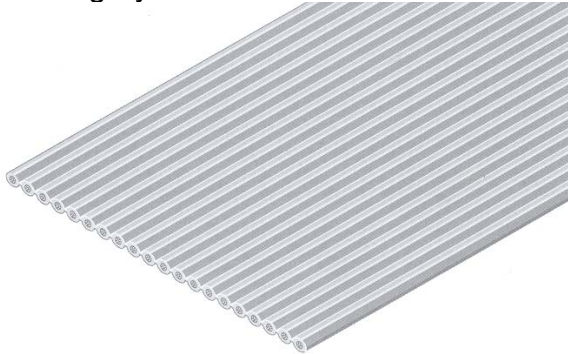
■ standard

■ on request

Ribbon cable

AWG 26, Grid 1,27 mm

Color: grey



Cross Section:

Conductor diameter

ca. 0.14 mm²

ca. 0.48 mm

Conductor design:

7 strands with \varnothing 0,16 mm

Test voltage:

2.000 V

Operating voltage:

300 V max

Current load:

ca. 3 A

Resistance:

150 Ω /km max.

Insulation resistance:

100 m Ω x km

Capacity at 1 kHz symmetrical*:

42 pF/m

Capacity at 1 kHz non-symmetrical*:

72 pF/m

Inductance at 10 kHz symmetrical*:

0,8 μ H/m

Inductance at 10 kHz not symmetrical*:

0,5 μ H/m

Characteristic impedance symmetrical*:

136 Ω

Characteristic impedance not symmetrical*:

90 Ω

Operating Temperature:

-20 °C up to +105 °C

Leiter:

Cu-tinned, (AWG 26)

Insulation:

Special PVC, similar Y18 acc. to VDE 0207;

Color: grey with yellow edge mark;

Flammability rating VDE 0472, § 804 and UL

Shore Hardness A: 90 +/- 5



* = Standard values

Pos.	ODU Part-No.	Dim. A	Dim. B	Tolerance Dim. A & B
09	921.659.017.009.000	10,16	11,43	+/- 0,2
10	921.659.017.010.000	11,43	12,70	+/- 0,2
14	921.659.017.014.000	16,51	17,78	+/- 0,2
15	921.659.017.015.000	17,78	19,05	+/- 0,2
16	921.659.017.016.000	19,05	20,32	+/- 0,2
20	921.659.017.020.000	24,13	25,40	+/- 0,2
25	921.659.017.025.000	30,48	31,75	+/- 0,2
26	921.659.017.026.000	31,75	33,02	+/- 0,2
34	921.659.017.034.000	41,91	43,18	+/- 0,3
37	921.659.017.037.000	45,72	46,99	+/- 0,3
40	921.659.017.040.000	49,53	50,80	+/- 0,3
50	921.659.017.050.000	62,23	63,50	+/- 0,3
60	921.659.017.060.000	74,93	76,20	+/- 0,3
64	921.659.017.064.000	80,01	81,28	+/- 0,4

■ standard

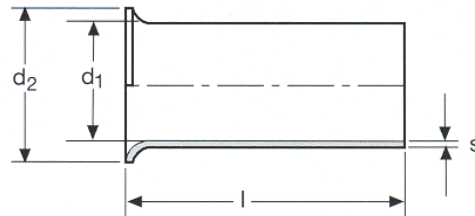
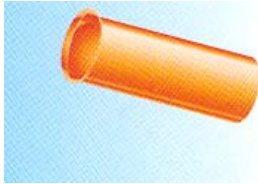
■ on request

Cable end sleeve – not insulated

DIN 46228 – Part 1

Material: SF-CU acc. to DIN 1787

Surface: tin-plated



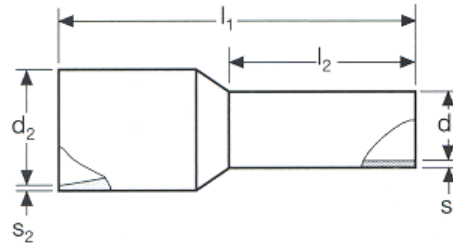
ODU Part-No.	AWG	Cross section mm ²	dimensions (mm)			
			l	d1	d2	s
901.046.228.001.021	28	0.08	7	0.5	1.6	0.15
901.046.228.001.022	26	0.14	7	0.7	1.6	0.15
901.046.228.001.023	23	0.25	5	0.8	1.7	0.15
901.046.228.001.024	22	0.34	5	0.9	1.8	0.15
901.046.228.001.001	20	0.50	6	1.0	2.21	0.15
901.046.228.001.002	18	0.75	6	1.2	2.3	0.15
901.046.228.001.003	17	1.00	6	1.4	2.5	0.15
901.046.228.001.005	15	1.50	7	1.7	2.8	0.15
901.046.228.001.007	13	2.50	7	2.2	3.4	0.15




















Cable end sleeve – insulated

DIN 46228 – Part 1

Material: SF-CU acc. to DIN 1787

Surface: tin-plated



ODU Part-No.	mm ²	AWG	rating	Color	Dimensions (mm)					
					l1	l2	d1	s1	d2	s2
901.046.228.004.016	0.14	26	0.14 – 6	 grey	10.4	6.0	0.7	0.12	1.1	0.25
901.046.228.004.017				 brown						
901.046.228.004.018				 light blue						
901.046.228.004.019	0.25	23	0.25 – 6	 yellow	10.4	6.0	0.8	0.15	1.8	0.25
901.046.228.004.020				 purple						
901.046.228.004.021	0.34	22	0.34 - 6	 turquoise	10.4	6.0	0.9	0.15	2.0	0.25
901.046.228.004.022				 green						
901.046.228.004.023				 purple						
901.046.228.004.015	0.50	20	0.50 - 8	 orange	14.0	8.0	1.0	0.15	2.6	0.25
901.046.228.004.024				 white						
901.046.228.004.025	0.75	18	0.75 - 8	 white	14.0	8.0	1.2	0.15	2.8	0.25
901.046.228.004.026				 blue						
901.046.228.004.027				 grey						
901.046.228.004.028	1.00	17	1.00 – 8	 yellow	14.0	8.0	1.4	0.15	3.0	0.25
901.046.228.004.029				 red						
901.046.228.004.030	1.50	15	1.50 – 8	 red	14.0	8.0	1.7	0.15	3.5	0.25
901.046.228.004.005				 black						
901.046.228.004.031				 grey						
901.046.228.004.007	2.50	13	2.50 – 8	 blue	14.0	8.0	2.2	0.15	4.2	0.25

■ standard

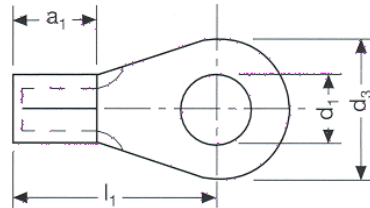
■ on request

Annular cable lug – not insulated

Ring form DIN 46234 and similar from 10 mm² to VG 88710

Material: E-CU

Surface: tin-plated



ODU Part-No.	mm ²	AWG	rating	dimensions (mm)			
				d1	d3	l1	a1
921.000.003.000.070	0.1 – 0.5	26 - 20	2.0 – 0.5	2.2	5	9	5
921.000.003.000.071			3.0 – 0.5	3.2	5	9	5
921.000.003.000.072			4.0 – 0.5	4.3	7	12	5
921.000.003.000.073	0.5 – 1.5	15	2.5 – 1.0	2.8	6	11	5
921.000.003.000.074			3.0 – 1.0	3.2	6	11	5
921.000.003.000.075			4.0 – 1.0	4.3	8	12	5
921.000.003.000.076	1.5 – 2.5	13	3.0 – 2.5	3.2	6	11	5
921.000.003.000.077			4.0 – 2.5	4.3	8	12	5
921.000.003.000.078			5.0 – 2.5	5.3	10	14	5

■ standard

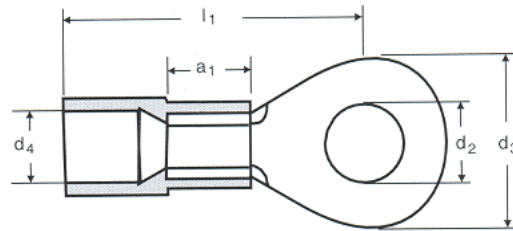
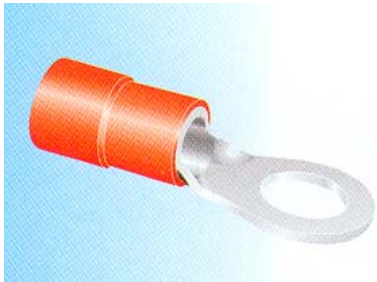
■ on request

Annular cable lug – insulated

Ring form DIN 46237

Material: E-CU tin plated

Isolation: PA



ODU Part-No.	mm ²	AWG	rating	Color	dimensions (mm)				
					d2	d3	d4	l1	a1
921.000.003.000.083	0.1 – 0.5	26 - 20	2 – 0.5	yellow	2.2	5	3.2	16	5
921.000.003.000.084			3 – 0.5		3.2	5	3.2	16	5
921.000.003.000.085			4 – 0.5		4.3	6	3.2	17	5
921.000.003.000.086			3 – 1.0		3.2	6	4.1	16	5
921.000.003.000.087	0.5 – 1.5	17	4 – 1.0	red	4.3	8	4.1	17	5
921.000.003.000.088			3 – 2.5		3.2	6	4.6	17	5
921.000.003.000.089	1.5 – 2.5	13	4 – 2.5	blue	4.3	8	4.6	18	5
921.000.003.000.090			4 – 6		4.3	8	6.6	20	6
921.000.003.000.091	2.5 - 6	10	5 – 6	yellow	5.3	10	6.6	21	6

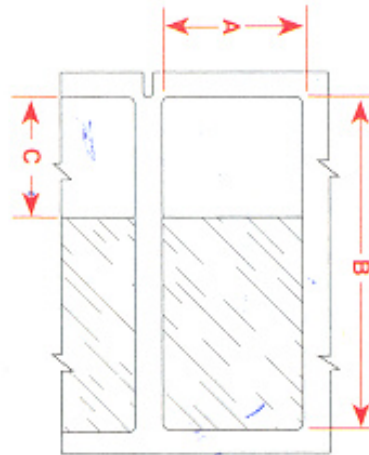
■ standard

■ on request

Cable Labeling

Stick-on lable

Permanent sticking, flame-retarding, dest, white/transp. Vinyl (B-427)



ODU Part-no	Max. \varnothing mm	dimensions (mm)		
		A	B	C Printable area
921.000.004.000.165	3	12,70	19,05	9,53
921.000.004.000.166	4	19,05	23,81	9,52
921.000.004.000.167	7	20,32	36,50	12,70
921.000.004.000.168	10	19,05	44,45	12,70
921.000.004.000.169	12	25,40	57,15	19,05
921.000.004.000.170	19	48,26	80,95	19,05
921.000.004.000.171	36	25,40	152,40	38,10



1. First put on the printed part



2. Then wrap the transparent part over this, so that the labelling is covered



3. After the transparent laminate has been applied, the labeling is protected for many years

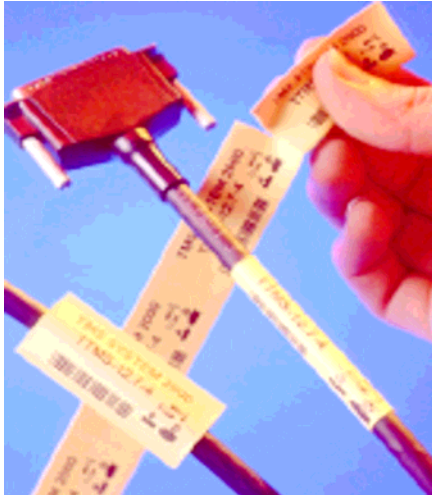
■ standard

■ on request

Cable Labeling

Printable shrinking tubes

black / white / yellow



Material:	Polyolefin
Operating Temperature:	-55 °C bis 135 °C
max. storage temperature:	40°C
Inscription:	Thermal transfer
Certification:	UL (File E35586) CSA (File 31929)

Inscription in black / white / blue possible

ODU Part-No..	Color	Cable Ø in mm	Ø before shrinking (mm)	Ø after shrinking (mm)
921.000.010.008.068	black	0,8-1,9	2,36	0,79
921.000.010.041.015	yellow	0,8-1,9	2,36	0,79
921.000.010.003.018	white	0,8-1,9	2,36	0,79
921.000.010.008.069	black	1,11-2,66	3,18	1,07
921.000.010.004.016	yellow	1,11-2,66	3,18	1,07
921.000.010.003.019	white	1,11-2,66	3,18	1,07
921.000.010.008.070	black	1,75-4,06	4,75	1,57
921.000.010.004.017	yellow	1,75-4,06	4,75	1,57
921.000.010.003.020	white	1,75-4,06	4,75	1,57
921.000.010.008.071	black	2,31-5,46	6,35	2,11
921.000.010.004.018	yellow	2,31-5,46	6,35	2,11
921.000.010.003.021	white	2,31-5,46	6,35	2,11
921.000.010.008.067	black	3,47-8,12	9,53	3,18
921.000.010.004.019	yellow	3,47-8,12	9,53	3,18
921.000.010.003.022	white	3,47-8,12	9,53	3,18
921.000.010.008.067	black	4,64-10,79	12,70	4,22
921.000.010.004.020	yellow	4,64-10,79	12,70	4,22
921.000.010.003.023	white	4,64-10,79	12,70	4,22
921.000.010.008.074	black	6,99-16,25	19,05	6,35
921.000.010.000.021	yellow	6,99-16,25	19,05	6,35
921.000.010.003.024	white	6,99-16,25	19,05	6,35

■ standard

■ on request

For your notes:

■ standard

■ on request