

7. Control cables



PUR control cables · unshielded

LÜTZE-SILFLEX® N PUR



Application

- Machine and device construction, transport and conveyor technology
- For flexible application with free movement
- Especially for industrial environments, machines and plants
- In rooms with high concentrations of people or material assets

Properties

- Low capacitance, very good electrical properties
- Very good cold flexibility
- halogen-free, no corrosive gases
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good resistance to use and salt water
- Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Free from silicone paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	
	3000 V
Insulation resistance	
	min. 100 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
	according to VDE 0298 table 6
Burning behaviour	
	Halogen-free according to DIN EN 20264-1; EN 50267-2-1, EN 60684-2

Design

- Bare copper braid, fine stranded according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special Thermoplast conductor insulation (21Y)
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
110437	2×0.5	4.5	2.6	1.0
110196	3G0.5	4.7	3.2	1.5
110457	4G0.5	5.1	4.0	1.9
110372	5G0.5	5.9	5.2	2.4
111016	7G0.5	6.4	6.6	3.4
111707	12G0.5	8.7	11.8	5.8
110644	18G0.5	10.4	17.2	8.6
110459	25G0.5	12.1	23.6	12.0
0.75 mm²				
110168	2×0.75	5.0	3.3	1.4
110197	3G0.75	5.3	4.2	2.2
110169	4G0.75	5.8	5.5	2.9
110991	5G0.75	6.4	6.7	3.6
110424	7G0.75	7.2	8.9	5.0
110506	12G0.75	9.5	15.4	8.6
110992	18G0.75	11.6	23.0	13.0
110526	25G0.75	13.5	31.6	18.0
1.0 mm²				
110443	2×1.0	5.2	3.9	2.0
110182	3G1.0	5.8	5.3	2.9
110418	4G1.0	6.3	6.6	3.8
110184	5G1.0	6.8	8.1	4.8
110185	7G1.0	7.7	10.8	6.7
110188	12G1.0	10.3	19.0	11.5
110189	18G1.0	12.3	27.9	17.3
110191	25G1.0	14.5	38.7	24.0
1.5 mm²				
110250	2×1.5	5.9	5.5	2.9
110177	3G1.5	6.4	7.1	4.3
110186	4G1.5	7.1	9.3	5.8
110178	5G1.5	7.8	11.4	7.2
110179	7G1.5	8.7	15.1	10.1
110180	12G1.5	11.7	26.6	17.3
110181	18G1.5	14.0	39.0	25.9
110183	25G1.5	16.4	53.9	36.0
2.5 mm²				
111102	3G2.5	7.8	11.4	7.2
110192	4G2.5	8.7	14.7	9.6
110193	5G2.5	9.6	18.1	12.0
110194	7G2.5	10.7	24.1	16.8
110975	12G2.5	14.6	42.8	28.8
4 – 6 mm²				
110195	4G4	10.5	22.4	15.4
110450	4G6	12.4	32.4	23.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PUR control cables - shielded

LÜTZE-SILFLEX® N (C)PUR, without inside jacket



Application

- Machine and device construction, transport and conveyor technology
- For flexible application with free movement
- Especially for industrial environments with high interference potential, in machines, plant and device construction
- In rooms with high concentrations of people or material assets

Properties

- High active and passive interference resistance
- Low capacitance, very good electrical properties
- Very good cold flexibility
- halogen-free, no corrosive gases
- Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good resistance to use and salt water
- Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Free from silicone paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 100 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Halogen-free according to DIN EN 20264-1; EN 50267-2-1, EN 60684-2

Design

- Bare copper braid, fine stranded according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special Thermoplast conductor insulation (21Y)
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
111651	(2×0.5)	5.2	3.8	2.3
111652	(3G0.5)	5.5	4.5	2.8
111653	(4G0.5)	5.9	6.0	3.7
111654	(5G0.5)	6.5	7.0	4.8
111656	(7G0.5)	7.2	9.1	5.6
111657	(12G0.5)	9.3	14.6	9.0
111658	(18G0.5)	11.0	20.6	12.4
111659	(25G0.5)	13.1	28.9	17.8
0.75 mm²				
111660	(2×0.75)	5.6	4.7	2.8
111661	(3G0.75)	6.0	6.0	3.9
111662	(4G0.75)	6.5	7.2	4.6
111663	(5G0.75)	7.2	9.2	5.8
111664	(7G0.75)	7.8	11.8	7.4
111665	(12G0.75)	10.3	18.4	11.9
111666	(18G0.75)	12.2	26.6	17.2
111667	(25G0.75)	14.5	37.2	24.6
1.0 mm²				
111668	(2×1.0)	6.0	5.7	3.7
111669	(3G1.0)	6.3	6.9	4.6
111670	(4G1.0)	6.8	8.8	6.1
111671	(5G1.0)	7.6	10.6	7.1
111672	(7G1.0)	8.2	13.5	9.5
111673	(12G1.0)	10.9	22.0	15.3
111674	(18G1.0)	13.3	33.5	23.1
111675	(25G1.0)	15.3	43.7	30.6
1.5 mm²				
111676	(2×1.5)	6.6	7.0	4.7
111677	(3G1.5)	7.0	9.4	6.6
111678	(4G1.5)	7.6	11.4	8.1
111679	(5G1.5)	8.6	14.4	10.0
111680	(7G1.5)	9.3	18.2	13.4
111681	(12G1.5)	12.3	29.6	21.5
111682	(18G1.5)	15.0	45.2	32.6
111683	(25×1.5)	17.4	59.8	43.4
2.5 m²				
111684	(3G2.5)	8.6	13.9	10.1
111685	(4G2.5)	9.3	17.6	12.9
111686	(5G2.5)	10.4	21.4	15.3
111687	(7G2.5)	11.5	27.8	20.5
111648	(12G2.5)	15.4	47.4	35.4
111649	(18G2.5)	18.3	69.6	51.5
111650	(25G2.5)	21.3	93.0	70.0
4 – 6 mm²				
111688	(4G4)	11.0	25.7	19.1
111690	(4G6)	13.4	38.3	28.9

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PUR Handheld tools and device cables

LÜTZE-SILFLEX® PUR ORANGE, coloured conductors



Application

- Handheld tools of all kinds such as drills, sanders, handsaws
- For flexible application with free movement
- Anywhere where an especially flexible cable is advantageous
- Orange outer jacket for locking circuits that remain under voltage after switching off of the main power circuit

Properties

- Abrasion-resistant, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good resistance to use and salt water
- Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Free from paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	2000 V
Insulation resistance	min. 100 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Halogen-free according to DIN EN 20264-1; EN 50267-2-1, EN 60684-2

Design

- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special Thermoplast conductor insulation (21Y)
- Conductors coloured according to DIN VDE 0293-308 (new)
- 2-wire: brown, blue
- 3-wire: greenyellow, brown, blue
- 4-wire: greenyellow, brown, black, grey
- 5-wire: greenyellow, blue, brown, black, grey
- Ground conductor greenyellow according to DIN EN 50334
- G = with greenyellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Full polyurethane jacket
- Jacket colour orange RAL 2003

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.75 mm²				
110296	3G0.75	5.3	4.2	2.2
111713	4G0.75	5.8	5.5	2.9
118995	5G0.75	6.4	6.7	3.6
1.0 mm²				
110199	3G1.0	5.8	5.4	2.9
110198	4G1.0	6.3	6.6	3.9
110144	5G1.0	6.8	8.1	4.8
1.5 mm²				
110171	3G1.5	6.4	7.2	4.3
110172	4G1.5	7.1	9.3	5.8
110173	5G1.5	7.8	11.4	7.2
2.5 mm²				
110329	3G2.5	7.8	10.4	7.2
110176	4G2.5	8.7	14.7	9.6
100866	5G2.5	9.6	18.2	12.0

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PVC control cables · unshielded

LÜTZE-SILFLEX® N



Application

- Machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- As control, measurement and regulation cable for medium operating conditions
- For flexible application without compulsory guide

Properties

- PVC flame-retardant, self-extinguishing
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1
Special version	
K= cold resistant	-30 °C to +70 °C
T= heat resistant	0 °C to +90 °C

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
100363	2×0.5	5.0	3.5	1.0
100364	3G0.5	5.3	4.3	1.4
101311	3×0.5	5.3	4.3	1.4
100365	4G0.5	5.8	5.2	1.9
108208	4×0.5	5.8	5.2	1.9
100366	5G0.5	6.4	6.1	2.4
100375	5×0.5	6.4	6.1	2.4
100215	7G0.5	7.0	7.5	3.4
100368	8G0.5	7.6	8.4	3.8
100369	10G0.5	8.7	10.5	4.8
100370	12G0.5	9.2	12.2	5.8
100371	14G0.5	9.8	14.1	6.7
100372	16G0.5	10.2	16.1	7.7
100373	18G0.5	11.0	18.0	8.6
100374	21G0.5	11.8	20.8	10.1
100358	25G0.5	13.3	25.3	12.0
100378	30G0.5	14.0	29.5	14.4
100379	36G0.5	15.0	35.0	17.3
100380	40G0.5	16.0	38.6	19.2
100382	50G0.5	18.0	48.2	24.0
100383	65G0.5	19.7	60.8	31.2
0.75 mm²				
100384	2×0.75	5.6	4.3	1.4
100385	3G0.75	5.8	5.6	2.2
100734	3×0.75	5.8	5.6	2.2
100386	4G0.75	6.6	6.8	2.9
100736	4×0.75	6.6	6.8	2.9
100387	5G0.75	6.9	8.0	3.6
100738	5×0.75	6.9	8.0	3.6
100389	7G0.75	7.5	9.8	5.0
100390	8G0.75	9.0	11.2	5.8
100391	10G0.75	9.6	14.0	7.2
100392	12G0.75	9.7	16.2	8.6
100388	14G0.75	10.8	18.8	10.1
100394	16G0.75	11.5	21.4	11.5
100395	18G0.75	12.0	24.1	13.0
101063	21G0.75	13.3	27.7	15.1
100398	25G0.75	14.0	33.8	18.0
100400	34G0.75	15.8	44.0	24.5
101312	41G0.75	18.0	54.8	29.5
100402	50G0.75	19.8	64.6	36.0
1.0 mm²				
100405	2×1.0	5.9	5.0	1.9
100406	3G1.0	6.2	6.6	2.9
100746	3×1.0	6.2	6.6	2.9
100407	4G1.0	6.7	8.0	3.8
100737	4×1.0	6.7	8.0	3.8
100408	5G1.0	7.3	9.5	4.8
100739	5×1.0	7.3	9.5	4.8
100409	6G1.0	8.2	11.2	5.8
100410	7G1.0	8.2	11.9	6.7
100411	8G1.0	9.0	11.3	7.7
100412	10G1.0	9.7	17.1	9.6
100413	12G1.0	10.6	20.0	11.5
100414	14G1.0	11.5	23.0	13.4
100415	16G1.0	12.0	26.3	15.4
100416	18G1.0	12.9	29.5	17.3
100420	20G1.0	13.8	32.8	19.2
101085	21G1.0	14.0	34.1	20.2

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PVC control cables · unshielded

LÜTZE-SILFLEX® N



Application

- Machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- As control, measurement and regulation cable for medium operating conditions
- For flexible application without compulsory guide

Properties

- PVC flame-retardant, self-extinguishing
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1
Special version	
K= cold resistant	-30 °C to +70 °C
T= heat resistant	0 °C to +90 °C

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
1.0 mm²				
100417	25G1.0	15.3	41.5	24.0
100419	34G1.0	17.5	54.6	32.6
100169	42G1.0	19.0	68.6	40.3
100421	50G1.0	21.0	79.6	48.0
100426	65G1.0	23.8	100.9	62.4
1.5 mm²				
100429	2×1.5	6.0	6.6	2.9
100430	3G1.5	7.0	8.6	4.3
100874	3×1.5	7.0	8.6	4.3
100431	4G1.5	7.4	10.7	5.8
100258	4×1.5	7.4	10.7	5.8
100432	5G1.5	8.3	12.7	7.2
100433	7G1.5	9.1	16.0	10.1
100434	8G1.5	9.8	18.4	11.5
100435	10G1.5	11.0	23.6	14.4
100437	12G1.5	11.7	27.6	17.3
100438	14G1.5	12.9	33.0	20.2
100440	18G1.5	14.7	40.8	25.9
100443	25G1.5	16.9	57.4	36.0
100447	50G1.5	23.9	110.6	72.0
2.5 mm²				
118389	2×2.5	7.7	9.9	4.8
100453	3G2.5	8.3	13.3	7.2
100454	4G2.5	9.1	16.6	9.6
100455	5G2.5	10.2	19.8	12.0
100456	7G2.5	11.3	25.7	16.8
100458	12G2.5	14.7	45.0	28.8
100460	18G2.5	18.1	67.0	43.2
100461	25G2.5	20.8	94.0	60.0
4 mm²				
100871	2×4	9.5	14.8	7.7
100990	3G4	10.2	21.1	11.6
100464	4G4	11.0	25.4	15.4
100465	5G4	12.3	30.9	19.2
100466	7G4	13.6	40.0	26.9
6 mm²				
100467	3G6	11.9	28.3	17.3
100468	4G6	12.7	35.8	17.3
100469	5G6	14.2	43.8	28.8
100470	7G6	15.7	56.9	40.3
10 mm²				
100479	3G10	15.5	49.5	28.8
100471	4G10	16.3	62.6	38.4
100475	5G10	18.2	76.5	48.0
100472	7G10	20.2	99.1	67.2
16 mm²				
100473	4G16	20.1	95.0	61.4
100354	5G16	22.6	116.3	76.8
100474	7G16	25.0	151.2	107.5
25 mm²				
100480	4G25	22.9	139.6	96.0
108205	5G5	27.6	171.2	120.0
35 mm²				
100481	4G35	28.9	187.5	134.4
100484	5G35	31.6	230.2	168.0
50 mm²				
108062	4G50	35.4	290.0	192.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cables · unshielded

LÜTZE-SILFLEX® B



Application

- Machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- As control, measurement and regulation cable for medium operating conditions
- For flexible application without compulsory guide

Properties

- PVC flame-retardant, self-extinguishing
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1
Special version	
K= cold resistant	-30 °C to +70 °C
T= heat resistant	0 °C to +90 °C

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Conductors coloured according to DIN VDE 0293-308 (new)
 - 2-wire: brown, blue
 - 3-wire: greenyellow, brown, blue
 - 4-wire: greenyellow, brown, black, grey
 - 5-wire: greenyellow, blue, brown, black, grey
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
 - G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
100013	2×0.5	5.0	3.5	1.0
100001	3G0.5	5.3	4.0	1.4
110921	3×0.5	5.3	4.0	1.4
100002	4G0.5	5.8	5.2	1.9
100003	5G0.5	6.4	6.1	2.4
0.75 mm²				
100024	2×0.75	5.6	4.3	1.4
100025	3G0.75	5.8	5.6	2.2
100012	3×0.75	5.8	5.6	2.2
100026	4G0.75	6.4	6.8	2.9
100027	5G0.75	6.9	8.0	3.6
1.0 mm²				
100050	2×1.0	5.9	5.0	1.9
100051	3G1.0	6.2	6.6	2.9
100983	3×1.0	6.2	6.6	2.9
100052	4G1.0	6.7	8.0	3.8
100053	5G1.0	7.3	9.5	4.8
1.5 mm²				
100078	2×1.5	6.0	6.6	2.9
100079	3G1.5	7.0	8.6	4.3
100080	4G1.5	7.4	10.7	5.8
100081	5G1.5	8.3	12.7	7.2
2.5 mm²				
100104	2×2.5	7.7	9.9	4.8
100105	3G2.5	8.3	13.3	7.2
100106	4G2.5	9.1	16.6	9.6
100107	5G2.5	10.2	19.8	12.0
4 mm²				
100118	4G4	11.0	25.4	15.4
100119	5G4	12.3	30.9	19.2
6 mm²				
100123	4G6	12.7	43.8	23.0
100124	5G6	14.2	56.9	28.8

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cable · shielded, without inside jacket

LÜTZE-SILFLEX® N (C) Y



Application

- Machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- As control, measurement and regulation cable for medium operating conditions
- For flexible application without compulsory guide
- Anywhere where electrical interference fields can influence the signal transmission

Properties

- The overall shield of braided copper wires prevents both the interference of signals and measured values as well as the radiation of interfering signals
- PVC Flame-retardant, self-extinguishing
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-25 °C to +70 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
116191	(2×0.5)	5.6	4.5	2.9
116139	(3G0.5)	6.2	6.3	4.5
116226	(3×0.5)	6.2	6.3	4.5
116238	(5G0.5)	7.1	9.6	5.7
116235	(7G0.5)	7.8	13.6	6.9
116236	(7×0.5)	7.8	13.6	6.9
116246	(12G0.5)	10.0	20.0	10.8
116247	(18G0.5)	11.6	27.5	14.4
116250	(25G0.5)	13.7	35.0	21.1
0.75 mm²				
116174	(2×0.75)	6.3	5.5	3.1
116100	(3G0.75)	6.5	7.0	4.6
116101	(3×0.75)	6.5	7.0	4.6
116102	(4G0.75)	7.1	9.5	5.6
116103	(5G0.75)	7.7	13.0	7.0
116104	(7G0.75)	8.4	16.8	9.8
116105	(12G0.75)	11.0	23.2	14.8
116106	(18G0.75)	12.8	31.5	20.5
116107	(25G0.75)	15.1	43.0	26.0
1.0 mm²				
116234	(2×1.0)	6.6	8.4	5.1
116110	(3G1.0)	6.9	11.0	7.0
116112	(4G1.0)	7.4	13.0	8.0
116113	(5G1.0)	8.2	15.6	9.5
116114	(7G1.0)	8.9	19.2	12.0
116115	(12G1.0)	11.6	28.5	18.5
116116	(18G1.0)	14.0	39.5	24.5
116117	(25G1.0)	16.0	64.2	33.0
1.5 mm²				
116137	(2×1.5)	7.2	9.7	6.5
116121	(3G1.5)	7.4	12.5	9.0
116122	(3×1.5)	7.4	12.5	9.0
116123	(4G1.5)	8.3	16.5	11.0
116124	(5G1.5)	9.0	19.3	12.5
116125	(7G1.5)	10.0	24.5	15.9
116126	(12G1.5)	13.3	36.5	24.5
116127	(18G1.5)	15.7	55.3	34.5
116128	(25G1.5)	18.0	72.0	46.5
2.5 mm²				
116132	(3G2.5)	9.2	18.8	12.4
116133	(4G2.5)	10.0	23.6	15.0
116134	(5G2.5)	11.1	27.0	18.0
116135	(7G2.5)	12.0	34.0	23.5
116136	(12G2.5)	15.8	58.5	38.5
116249	(18G2.5)	18.8	95.5	56.9
116144	(25G2.5)	22.0	131.0	77.5
4 – 35 mm²				
116150	(4G4)	11.8	30.2	22.0
116153	(4G6)	14.2	41.2	30.5
116156	(4G10)	17.2	72.0	51.7
116158	(4G16)	20.2	107.0	75.6
116159	(4G25)	24.9	152.1	114.6
116143	(4G35)	27.8	229.0	154.3

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cables · with steel braid

LÜTZE-SILFLEX® NSY



Application

- Machine and device construction, transport and conveyor technology, heating, climate technology
- In dry and moist rooms
- As control, measurement and regulation cable for medium operating conditions
- For the hardest operating conditions
- For flexible application without compulsory guide

Properties

- High mechanical protection through galvanised steel braid and PVC inside jacket
- PVC Flame-retardant, self-extinguishing
- outer jacket transparent special PVC
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Conductors black with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Inside jacket PVC
- Hot-dipped galvanised steel wire braid, optical covering ≥ 65 %
- Jacket special-PVC **transparent**

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
100573	3G0.5	7.9	13.4	1.4
100574	4G0.5	9.0	14.0	1.9
100575	5G0.5	9.7	15.6	2.4
101327	7G0.5	10.7	18.0	3.4
100600	12G0.5	12.3	27.5	5.8
100581	18G0.5	15.0	35.0	8.6
108025	25G0.5	17.3	30.0	12.0
0.75 mm²				
100588	2×0.75	8.2	12.9	1.4
100589	3G0.75	8.5	14.0	2.2
100590	4G0.75	9.5	16.2	2.9
100591	5G0.75	10.1	16.8	3.6
100592	7G0.75	11.2	19.7	5.0
100602	12G0.75	14.0	30.0	8.6
100597	18G0.75	15.5	39.8	13.0
100537	25G0.75	18.2	50.0	18.0
1.0 mm²				
100605	2×1.0	9.8	17.0	1.9
100606	3G1.0	10.1	18.7	2.9
100607	4G1.0	10.8	19.6	3.8
100608	5G1.0	11.6	23.0	4.8
100611	7G1.0	12.4	27.0	6.7
100616	12G1.0	15.1	38.0	11.5
100618	18G1.0	17.3	50.6	17.3
100619	25G1.0	20.0	62.0	24.0
1.5 mm²				
100610	2×1.5	10.2	18.0	2.9
100625	3G1.5	10.6	19.5	4.3
100626	4G1.5	11.3	21.0	5.8
100627	5G1.5	12.2	24.7	7.2
100628	7G1.5	13.0	31.3	10.1
100630	12G1.5	15.9	45.6	17.3
100632	18G1.5	20.0	65.0	25.9
100633	25G1.5	25.5	93.1	36.0
2.5 mm²				
100638	3G2.5	12.7	25.6	7.2
100637	4G2.5	13.6	30.3	9.6
100639	5G2.5	14.7	34.3	12.0
100640	7G2.5	15.8	42.6	16.8
100642	12G2.5	20.5	79.0	28.8
100644	18G2.5	26.5	93.0	43.2
100645	25G2.5	31.5	145.0	60.0
4 – 10 mm²				
100648	4G4	16.1	41.5	15.4
100650	5G4	17.5	48.3	19.2
100646	7G4	21.5	70.0	26.9
100652	4G6	18.4	60.0	23.4
100653	5G6	20.0	65.1	28.8
100649	7G6	22.5	85.0	40.3
100654	4G10	22.3	100.0	38.4
100655	5G10	25.5	107.0	48.0
100656	7G10	27.5	140.0	67.2

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cable

LÜTZE-SILFLEX® ORC



Application

- Machine tools, transfer lines as well as other areas in the French automobile industry
- As monitoring, measurement and control cable
- For flexible application without compulsory guide
- Approved by the French automobile industry for use in conjunction with cutting and cooling oils

Properties

- Isolation and jacket material especially oil-stabilised according to the French automobile industry norm (**CNOMO**)
- Largely resistant to oils, greases, acids and bases
- PVC Flame-retardant, self-extinguishing
- Free from paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage

U₀/U 300/500 V

Test voltage

3000 V

Insulation resistance

min. 20 MΩ × km

Temperature range

moving -5 °C to +70 °C

fixed -25 °C to +70 °C

Minimum bending radius

according to VDE 0298 table 6

Burning behaviour

Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation according to HD 21.1 T11
- Black conductors with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Jacket special PVC according to CNOMO and HD 21.1 TM5, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.75 mm²				
101257	3G0.75	5.5	5.1	2.2
101239	4G0.75	6.2	6.6	2.9
101258	5G0.75	6.8	8.0	3.6
101259	7G0.75	7.6	10.4	5.0
101260	12G0.75	9.9	17.7	8.6
101261	18G0.75	14.1	32.7	13.0
101262	27G0.75	14.8	39.6	19.4
1.0 mm²				
101130	2×1.0	5.5	4.9	1.9
101098	3G1.0	6.1	6.4	2.9
101099	4G1.0	6.6	7.9	3.8
101100	5G1.0	7.2	9.5	4.8
101101	7G1.0	8.0	12.3	6.7
101102	12G1.0	10.7	21.7	11.5
101131	18G1.0	12.7	31.1	17.3
101104	27G1.0	15.7	47.5	25.9
101233	36G1.0	18.8	64.0	34.6
101236	48G1.0	21.3	96.0	46.1
1.5 mm²				
101135	2G1.5	6.3	6.8	2.9
101136	3G1.5	6.7	8.4	4.3
101137	4G1.5	7.5	10.8	5.8
101138	5G1.5	8.2	13.1	7.2
101139	7G1.5	9.1	17.1	10.1
101140	12G1.5	12.1	29.8	17.3
101141	18G1.5	14.4	43.3	25.9
101144	27G1.5	22.1	65.5	38.9
2.5 – 16 mm²				
101147	3G2.5	8.2	13.2	7.2
101148	4G2.5	9.1	16.7	9.6
101253	5G2.5	10.0	20.5	12.0
101226	7G2.5	11.1	26.8	16.8
101149	4G4	10.9	25.1	15.3
101151	4G6	12.8	36.0	23.0
108047	4G10	16.3	59.1	38.4
100921	4G16	18.8	86.4	61.4

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cables intrinsically safe

LÜTZE-SILFLEX® EN LÜTZE-SILFLEX® EN (C) Y



Application

- Control, monitoring and instrumentation cable in intrinsically safe electric circuits (according to DIN VDE 0165 T.1)
- For explosive areas with ignition type(EX) -I-
- Painting and drying systems, machine and plant construction
- In dry and moist rooms

Properties

- PVC flame-retardant, self-extinguishing
- Widely resistant to oils, greases, acids and bases
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
Test voltage	3000 V
Insulation resistance	min. 20 MΩ × km
Operating capacity (unshielded) at 800 Hz	
Strand/Strand	approx. 110 pF/m
Operating capacity (shielded) at 800 Hz	
Strand/Strand	approx. 130 pF/m
Strand/Shield	approx. 185 pF/m
(pF/m at 800 Hz)	
Inductance	approx. 0.65 mH/km
Temperature range	
moving	-5 °C to +70 °C
fixed	-30 °C to +80 °C
Minimum bending radius	according to VDE 0298 table 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation
- Black conductors with white number print according to DIN EN 50334
- Conductors stranded layers
- Shielded design: meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Jacket special PVC TM2 according to HD21.1, matt, adhesion-free surface
- Jacket colour blue RAL 5015

Part-No.	Number of strands/cross-section	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
unshielded - jacket colour blue				
100751	2×0.75	5.6	5.4	1.4
100754	3×0.75	5.9	6.6	2.2
100758	4×0.75	6.4	7.8	2.9
100760	5×0.75	6.9	10.0	3.6
110762	18×0.75	12.0	27.6	13.0
100753	2×1.0	5.9	6.0	1.9
100755	4×1.0	6.7	10.6	3.8
100756	2×1.5	6.8	8.4	2.9
100757	3×1.5	6.9	10.2	4.3
100759	5×1.5	8.3	14.5	7.2
100704	7×1.5	9.1	17.1	10.1
shielded - jacket colour blue				
100711	(2×0.75)	6.3	5.6	4.0
100747	(3×0.75)	6.6	7.0	5.1
100713	(4×0.75)	7.1	9.5	6.2
100715	(8×0.75)	9.0	17.3	12.0
100716	(2×1.0)	6.6	8.4	6.0
100714	(3×1.0)	6.9	11.0	7.0
100717	(4×1.0)	7.4	13.0	9.0
108059	(12×1.0)	11.6	28.5	17.3
100719	(2×1.5)	7.2	9.7	7.4
100256	(3×1.5)	7.8	12.0	9.0
100720	(4×1.5)	8.3	16.5	11.6

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cables · unshielded

LÜTZE-SILFLEX® QUAD N (H05VV5-F)



Application

- Machine and device construction, assembly lines, production lines, linking of control devices to conveyor systems
- These cables are especially suited for systems that are intended for export. Through the <HAR> UL CSA approval, these cables can be used virtually worldwide.
- The especially oil-resistant and flame-retardant PVC Jacket enables the use even under difficult conditions.

Properties

- PVC Flame-retardant, self-extinguishing
- Outer jacket special-PVC TM5 according to HD 21.1
- Largely resistant to oils, greases, acids and bases
- Oil resistant according to HD 21.1, UL, CSA
- Free from paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage	
U ₀ /U	300/500 V
UL/CSA	600 V
Test voltage 3000 V	
Insulation resistance min. 20 MΩ × km	
Temperature range <HAR>	
moving	-5 °C to +70 °C
fixed	-40 °C to +70 °C
Temperature range UL/CSA	
moving	-5 °C to +90 °C
fixed	-40 °C to +90 °C
Minimum bending radius according to VDE 0298 table 6	
Burning behaviour Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1; UL 1581 section VV-1 Flame-Test; CSA FT 1	
Approbations H05VV5-F <HAR> HD21.13 UL-Style 2587 90 °C/600V CSA AWM I	

Design

- Bare copper wire, multi-strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation T12 according to HD 21.1
- Black conductors with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Jacket special PVC TM5 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.5 mm²				
108349	2×0.5	5.7	4.4	1.0
108350	3G0.5	6.1	5.5	1.4
108351	4G0.5	6.7	6.6	1.9
108352	5G0.5	7.5	8.3	2.4
108353	7G0.5	8.2	12.6	3.4
108354	12G0.5	10.9	18.2	5.8
108355	18G0.5	13.0	25.6	8.6
108356	25G0.5	15.2	35.8	12.0
0.75 mm²				
108401	2G0.75	6.1	5.6	1.5
108357	3G0.75	6.6	6.6	2.1
108358	4G0.75	7.3	8.1	2.9
108359	5G0.75	8.1	10.1	3.6
108360	7G0.75	8.9	15.4	5.0
108361	12G0.75	11.9	23.0	8.6
108362	18G0.75	14.2	32.4	13.0
108363	25G0.75	16.5	45.2	18.0
1.0 mm²				
108410	2×1.0	6.5	6.4	1.9
108364	3G1.0	6.9	7.7	2.9
108365	4G1.0	7.7	9.5	3.8
108366	5G1.0	8.5	11.7	4.8
108367	7G1.0	9.4	18.3	6.7
108368	12G1.0	12.6	26.8	11.5
108369	18G1.0	15.0	38.6	17.3
108370	25G1.0	17.5	53.7	24.0
1.5 mm²				
108391	2×1.5	7.6	9.1	2.9
108372	3G1.5	8.2	11.0	4.3
108373	4G1.5	9.1	13.9	5.8
108374	5G1.5	10.1	16.7	7.2
108375	7G1.5	11.1	26.0	10.1
108376	12G1.5	14.9	39.0	17.3
108377	18G1.5	17.9	55.9	25.9
108378	25G1.5	20.9	77.6	36.0
2.5 mm²				
108380	3G2.5	9.7	16.2	7.2
108381	4G2.5	10.7	20.5	9.6
108382	5G2.5	12.0	25.3	12.0
108383	7G2.5	13.2	38.9	16.8
108384	12G2.5	17.8	58.4	28.8
108385	18G2.5	21.3	83.6	43.2
108386	25G2.5	24.9	117.2	60.0

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC

PVC control cables - shielded

LÜTZE-SILFLEX® QUAD N (C)Y (H05VVC4V5-K)



Application

- Machine and device construction, assembly lines, production lines, linking of control devices to conveyor systems
- These cables are especially suited for systems that are intended for export. Through the <HAR> UL CSA approval, these cables can be used virtually worldwide.
- The especially oil-resistant and flame-retardant PVC Jacket enables use even under difficult conditions.
- Especially for industrial environments with high interference potential, in machine, plant and device construction

Properties

- The overall shield of braided copper wires prevents both the interference of signals and measured values as well as the radiation of interfering signals.
- PVC Flame-retardant, self-extinguishing
- Outer jacket special-PVC TM5 according to HD 21.1
- Largely resistant to oils, greases, acids and bases
- Oil resistant according to HD 21.1, UL, CSA
- Free from paint wetting impairment substances (LABS-free), RoHS-compliant

Technical data

Voltage

U₀/U 300/500 V

UL/CSA 600 V

Test voltage 3000 V

Insulation resistance min. 20 MΩ × km

Temperature range <HAR>

moving -5 °C to +70 °C

fixed -40 °C to +70 °C

Temperature range UL/CSA

moving -5 °C to +90 °C

fixed -40 °C to +90 °C

Minimum bending radius according to VDE 0298 table 6

Burning behaviour Flame-retardant according to VDE 0482 part 265-2; DIN EN 50265-2; IEC 60332-1; UL 1581 section VW-1 Flame-Test; CSA FT 1

Approbations H05VV5-F <HAR> HD21.13
UL-Style 2587 90 °C/600V
CSA AWM I

Design

- Bare copper braid, superfine strand according to DIN VDE 0295 class 5, IEC 60228 class 5
- Special PVC conductor insulation T12 according to HD 21.1
- Black conductors with white number print according to DIN EN 50334
- Ground conductor green/yellow according to DIN EN 50334 in the top layer
G = with green/yellow ground conductor; × = without ground conductor
- Conductors stranded layers
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- PVC inside jacket
- Jacket special PVC TM5 according to HD21.1, matt, adhesion-free surface
- Jacket colour grey RAL 7001

Part-No.	Number of strands/cross-section	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
0.75 mm²				
109582	(3G0.75)	8.8	12.5	5.2
109583	(4G0.75)	9.6	14.7	5.7
109584	(5G0.75)	10.3	17.2	6.9
109585	(7G0.75)	12.2	23.5	9.3
109587	(12G0.75)	14.5	35.4	16.2
1.0 mm²				
109568	(3G1.0)	9.3	14.1	6.3
109569	(4G1.0)	9.9	16.5	7.5
109570	(5G1.0)	10.9	19.5	8.8
109581	(7G1.0)	12.9	27.2	12.3
109571	(12G1.0)	15.4	40.5	18.9
1.5 mm²				
109572	(3G1.5)	10.4	18.0	8.0
109573	(4G1.5)	11.3	21.7	8.9
109574	(5G1.5)	12.6	26.7	10.9
109575	(7G1.5)	14.9	37.9	13.5
109576	(12G1.5)	17.6	53.8	32.2
2.5 mm²				
109577	(3G2.5)	12.0	24.6	10.9
109578	(4G2.5)	13.3	31.7	13.0
109579	(5G2.5)	14.6	38.3	18.3
109580	(7G2.5)	17.3	52.3	22.7

CE These products are in conformity with the EU Low Voltage Directive 2006/95/EC