



## ÖLFLEX® CLEANROOM FD 8110

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8110

LAPP KABEL CLEANROOM FD 8110



### Info

- Low voltage power and control cable for CLEANROOM

### Benefits

- Cost-effective solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- CLEANROOM

### Product features

- Flame retardant according to IEC 60332-1-2
- Low-adhesive surface

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation : Polyvinyl Chloride
- Core insulation colour : Black
- Outer sheath : Polyvinyl Chloride
- Outer sheath colour : Black

### Technical data



#### Conductor stranding

Stranded made of bare copper wire (Design acc.to IEC60228 Cl.6)



#### Minimum bending radius

For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter



#### Nominal voltage

300/500 V



#### Test voltage

4000 V



#### Range of temperature

Flexing: 0°C up to +70 °C, Fixed installation: -40°C up to +80°C

Article number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8110</b>				
85130000	2x0.5	5.0	10	30
85130001	3x0.5	5.3	14	38
85130002	4x0.5	5.7	19	48
85130003	5x0.5	6.2	24	58
85130004	7x0.5	7.3	34	82
85130005	10x0.5	9.0	48	129
85130006	12x0.5	10.1	58	124
85130007	18x0.5	13.6	86	192
85130008	2x0.75	5.5	14	37
85130009	3x0.75	5.8	22	48
85130010	4x0.75	6.3	29	61
85130011	5x0.75	6.8	36	75
85130012	7x0.75	8.2	50	110
85130013	12x0.75	11.4	86	167
85130014	15x0.75	12.1	108	195
85130015	16x0.75	14.0	115	228
85130016	18x0.75	15.2	130	257
85130017	2x1.0	5.8	19	44
85130018	3x1.0	6.1	29	57
85130019	4x1.0	6.6	38	74
85130020	5x1.0	7.2	48	91
85130021	7x1.0	8.7	67	133
85130022	12x1.0	12.2	115	203
85130023	14x1.0	13.7	134	242
85130024	16x1.0	15.0	154	277
85130025	18x1.0	16.5	173	320
85130026	2x1.5	6.5	29	59
85130027	3x1.5	6.9	43	78
85130028	4x1.5	7.5	58	101
85130029	5x1.5	8.4	72	128
85130030	7x1.5	10.0	101	186
85130031	9x1.5	11.7	130	252
85130032	12x1.5	13.9	173	285
85130033	16x1.5	17.1	230	386
85130034	18x1.5	18.8	259	444
85130035	3x2.5	8.9	72	127
85130036	4x2.5	9.8	96	164
85130037	5x2.5	10.9	120	208
85130038	7x2.5	13.2	168	307
85130039	12x2.5	18.5	288	471
85130040	14x2.5	20.7	336	557
85130041	18x2.5	25.0	432	729
85130042	3x4.0	10.4	115	185
85130043	4x4.0	11.4	154	240
85130044	5x4.0	12.7	192	304
85130045	4x6.0	13.9	230	356
85130046	5x6.0	15.4	288	449
85130047	7x6.0	18.6	403	656
85130048	4x10.0	17.2	384	569
85130049	5x10.0	19.1	480	718
85130050	4x16.0	20.5	614	851
85130051	5x16.0	22.9	768	1085
85130052	3x35.0	25.7	1008	1316



## ÖLFLEX® CLEANROOM FD 8110 C

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8110 C



### Info

- Low voltage power and control cable for CLEANROOM

### Benefits

- Cost-effective solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Application Range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- CLEANROOM

### New references Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation : Polyvinyl Chloride
- Core insulation colour : Black
- Outer sheath : Polyvinyl Chloride
- Outer sheath colour : Black

### Technical data

- Conductor stranding**  
Stranded made of bare copper wire (Design acc.to IEC60228 Cl.6)
- Minimum bending radius**  
For flexible use: 7.5 x outer diameter,  
Fixed installation: 4 x outer diameter
- Nominal voltage**  
300/500 V
- Test voltage**  
4000 V
- Range of temperature**  
Flexing: 0°C up to +70 °C, Fixed installation: -40°C up to +80°C

### Product features

- Flame retardant according to IEC60332-1-2
- Low-adhesive surface

Article number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8110 C</b>				
85130100	2x0.5	6.9	9.6	83.4
85130101	3x0.5	7.3	14.4	96.6
85130102	4x0.5	7.9	19.2	113.3
85130103	5x0.5	8.4	24.0	129.8
85130104	7x0.5	9.8	33.6	177.3
85130105	12x0.5	11.3	57.6	219.4
85130106	18x0.5	13.4	86.4	287.2
85130107	2x0.75	7.3	14.4	95.2
85130108	3x0.75	7.8	21.6	112.0
85130109	4x0.75	8.4	28.8	132.3
85130110	5x0.75	9.0	36.0	153.3
85130111	7x0.75	10.7	50.4	215.5
85130112	12x0.75	12.4	86.4	267.3
85130113	16x0.75	14.2	115.2	344.4
85130114	18x0.75	14.9	129.6	372.7
85130115	2x1.0	7.7	19.2	105.4
85130116	3x1.0	8.2	28.8	125.5
85130117	4x1.0	8.9	38.4	151.8
85130118	5x1.0	9.8	48.0	186.3
85130119	7x1.0	11.4	67.2	248.7
85130120	12x1.0	13.4	115.2	331.0
85130121	16x1.0	15.2	153.6	401.2
85130122	18x1.0	16.1	172.8	439.4
85130123	2x1.5	8.4	28.8	127.3
85130124	3x1.5	9.0	43.2	155.0
85130125	4x1.5	9.9	57.6	194.3
85130126	5x1.5	10.9	72.0	234.5
85130127	7x1.5	12.7	100.8	318.4
85130128	12x1.5	15.1	172.8	433.2
85130129	16x1.5	16.8	230.4	511.9
85130130	18x1.5	17.8	259.2	550.9
85130131	3x2.5	10.8	72.0	222.6
85130132	4x2.5	11.8	96.0	276.3
85130133	5x2.5	13.2	120.0	354.0
85130134	7x2.5	15.8	168.0	500.9
85130135	9x2.5	18.1	216.0	603.6
85130136	12x2.5	18.2	288.0	609.4
85130137	14x2.5	19.8	336.0	728.1
85130138	3x4.0	11.4	115.2	351.2
85130139	4x4.0	13.7	153.6	437.7
85130140	5x4.0	15.3	192.0	423.6
85130141	4x10.0	20.2	384.0	857.5
85130142	5x10.0	22.2	480.0	1043.4
85130143	4x16.0	23.6	614.4	1197.7
85130144	5x16.0	26.6	768.0	1539.2



**i Info**

- Flexible cable for power chain use
- Cable for Cleanroom use

## UNITRONIC® CLEANROOM FD 8113 MC

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### Benefits

- Fire retardant in according to IEC 60332-1-2
- low article emission
- IPA Class 1

### Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

### Product features

- Flame-retardant according IEC 60332-1-2

### Norm references / Approvals

- IPA Class 1 test in according to ISO 14644-1
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

### Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Specially formulated PVC
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

### Technical data

- Core identification code**  
DIN 47100, refer to Appendix T9
- Conductor stranding**  
Extra-fine wire strands of bare copper
- Mutual Capacitance**  
C/C : approx. 110 nF/km
- Maximum operating voltage**  
0.14 mm<sup>2</sup> : 500 V (Not for power application)  
0.25 mm<sup>2</sup> and 0.34 mm<sup>2</sup> : 900V (Not for power application)
- Inductivity**  
approx. 0.75 mH/km
- Minimum bending radius**  
Flexing : 5 x Out diameter  
Fixed installation : 3 x Out diameter
- Test voltage**  
0.14 mm<sup>2</sup> : 1,200 V  
0.25 mm<sup>2</sup> and 0.34 mm<sup>2</sup> : 2,500V
- Temperature range**  
Flexing : 0°C to +70°C  
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
<b>UNITRONIC CLEANROOM FD 8113 MC</b>				
85132002	2x0.14	4.43	2.76	22.70
85132001	3x0.14	4.78	4.17	26.42
85132003	4x0.14	5.13	5.58	30.78
85132004	5x0.14	5.48	7.01	35.44
85132005	6x0.14	5.84	8.43	40.35
85132006	7x0.14	6.19	9.87	45.47
85132007	8x0.14	6.54	11.30	50.81
85132008	9x0.14	6.90	12.74	56.34
85132009	10x0.14	7.25	14.18	62.07
85132010	14x0.14	7.25	19.16	65.53
85132011	18x0.14	7.96	24.76	80.48
85132051	2x0.25	4.70	4.67	27.61
85132052	3x0.25	5.12	7.04	32.82
85132053	4x0.25	5.54	9.43	38.94
85132054	5x0.25	5.96	11.84	45.49
85132055	6x0.25	6.38	14.25	52.38
85132056	7x0.25	6.80	16.68	59.59
85132057	8x0.25	7.22	19.10	67.09
85132058	9x0.25	7.64	21.54	74.88
85132059	10x0.25	8.06	23.97	82.95
85132060	14x0.25	8.06	33.02	90.11
85132061	18x0.25	8.90	42.76	112.25
85132101	2x0.34	5.17	6.22	33.91
85132102	3x0.34	5.67	9.38	40.68
85132103	4x0.34	6.16	12.56	48.72
85132104	5x0.34	6.66	15.76	57.38
85132105	6x0.34	7.16	18.98	66.51
85132106	7x0.34	7.66	22.20	76.08
85132107	8x0.34	8.16	25.43	86.06
85132108	9x0.34	8.65	28.67	96.44
85132109	10x0.34	9.15	31.91	107.22
85132110	14x0.34	9.15	43.11	115.43
85132111	18x0.34	10.15	55.70	144.48



**i Info**

- Flexible cable for power chain use
- Cable for Cleanroom use

## UNITRONIC® CLEANROOM FD 8113 C MC



### Benefits

- Fire retardant in according to IEC 60332-1-2
- low article emission
- IPA Class 1
- Low electrical interference by overall braiding

### Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

### Product features

- Flame-retardant according IEC 60332-1-2

### Norm references / Approvals

- IPA Class 1 test in according to ISO 14644-1
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

### Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Specially formulated PVC
- Shield: Tinned-copper braiding
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

### Technical data

- Core identification code**  
DIN 47100, refer to Appendix T9
- Conductor stranding**  
Extra-fine wire strands of bare copper
- Mutual Capacitance**  
C/C : approx. 110 nF/km
- Maximum operating voltage**  
0.14 mm<sup>2</sup> : 500 V  
(Not for power application)  
0.25 mm<sup>2</sup> and 0.34 mm<sup>2</sup> : 900V  
(Not for power application)
- Inductivity**  
approx. 0.75 mH/km
- Minimum bending radius**  
Flexing : 7.5 x Out diameter  
Fixed installation : 4 x Out diameter
- Test voltage**  
0.14 mm<sup>2</sup> : 1,200 V  
0.25 mm<sup>2</sup> and 0.34 mm<sup>2</sup> : 2,500V
- Temperature range**  
Flexing : 0°C to +70°C  
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm <sup>2</sup> per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
<b>UNITRONIC CLEANROOM FD 8113 C MC</b>				
85132202	2x0.14	4.95	9.94	29.98
85132201	3x0.14	5.31	11.70	34.54
85132203	4x0.14	5.76	16.19	42.56
85132204	5x0.14	6.12	18.06	47.63
85132205	6x0.14	6.47	21.36	54.32
85132206	7x0.14	6.82	22.89	59.44
85132207	8x0.14	7.18	26.20	66.53
85132208	9x0.14	7.53	27.75	72.05
85132209	10x0.14	7.88	31.40	79.87
85132210	14x0.14	7.88	36.13	83.32
85132211	18x0.14	8.59	44.18	100.26
85132251	2x0.25	5.46	14.35	37.57
85132252	3x0.25	5.88	16.83	43.59
85132253	4x0.25	6.30	19.86	50.43
85132254	5x0.25	6.72	24.22	58.89
85132255	6x0.25	7.14	26.72	65.76
85132256	7x0.25	7.56	31.11	74.80
85132257	8x0.25	7.98	33.65	82.25
85132258	9x0.25	8.40	38.56	92.35
85132259	10x0.25	8.82	41.09	100.35
85132260	14x0.25	8.82	50.14	107.31
85132261	18x0.25	9.66	61.97	130.70
85132301	2x0.34	5.93	16.72	43.40
85132302	3x0.34	6.43	22.24	53.52
85132303	4x0.34	6.92	25.71	61.96
85132304	5x0.34	7.42	30.97	72.59
85132305	6x0.34	7.92	36.24	83.61
85132306	7x0.34	8.42	39.41	92.92
85132307	8x0.34	8.92	42.60	102.63
85132308	9x0.34	9.41	51.25	118.18
85132309	10x0.34	9.91	54.47	128.70
85132310	14x0.34	9.91	66.22	137.64
85132311	18x0.34	10.91	82.90	169.85



## ÖLFLEX® CLEANROOM FD 8661 MC D FR

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### Info

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance
- Spiral copper shield

### Technical data



#### Conductor stranding

extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>



#### Minimum bending radius

For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter



#### Nominal voltage

300/500 V



#### Test voltage

1500 V



#### Range of temperature

Flexing: -30°C up to +80 °C

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Copper shielding protects against electromagnetic interference

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product features

- IEC 60332-1-2 flame retardant
- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 2
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- Spiral shield made of tinned copper wires
- Wrapping of Teflon tape
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 MC D FR</b>				
108419	2X0.14	4.2	3	20
108421	2X0.25	4.6	5	25
108423	2X0.34	4.8	7	28
108425	2X0.5	5.0	10	32
108427	2X0.75	5.6	14	40
108429	3X0.14	4.3	4	22
108431	3X0.25	4.8	7	29
108433	3X0.34	5.0	10	33
108435	3G0.5	5.2	14	38
108437	3G0.75	5.9	22	50
108439	4X0.14	4.6	5	25
108441	4X0.25	5.0	10	33
108443	4X0.34	5.3	13	38
108445	4G0.5	5.5	19	46
108459	4G0.75	6.5	29	63
108461	4G1	7.0	38	78
108463	4G1.5	8.0	58	104
108465	5X0.14	4.8	7	28
108467	5X0.25	5.4	12	38
108469	5X0.34	5.6	16	44
108471	5G0.5	5.9	24	53
108473	5G0.75	6.9	36	74
108475	5G1	7.5	48	92
108477	5G1.5	8.8	72	128
108483	6X0.14	5.1	8	31
108485	6X0.25	5.7	14	42
108488	6X0.34	6.0	20	49
108490	6G0.5	6.5	29	64
108492	6G0.75	7.4	43	85
108494	7X0.14	5.3	9	34
108496	7X0.25	5.9	17	47
108498	7X0.34	6.5	23	58
108501	7G0.5	6.8	34	71
108503	7G0.75	7.9	50	95
108505	7G1	8.7	67	124
108508	7G1.5	10.1	101	168
108510	10X0.14	5.8	13	42
108512	10X0.25	6.8	24	62
108514	10X0.34	7.2	33	74
108516	10G0.5	7.6	48	92
108519	10G0.75	9.1	72	130
108521	12X0.14	5.9	16	46
108523	12X0.25	7.0	29	69
108525	12X0.34	7.4	39	83
108527	12G0.5	7.9	58	104
108529	12G0.75	9.3	86	147



## ÖLFLEX® CLEANROOM FD 8661 MC D

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 MC D

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 MC D



### Info

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance
- Spiral copper shield

### Technical data



#### Conductor stranding

extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>



#### Minimum bending radius

For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter



#### Nominal voltage

300/500 V



#### Test voltage

1500 V



#### Range of temperature

Flexing: -30°C up to +80 °C

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Copper shielding protects against electromagnetic interference

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product features

- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- Spiral shield made of tinned copper wires
- Wrapping of Teflon tape
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 MC D</b>				
108418	2X0.14	4.2	3	16
108420	2X0.25	4.6	5	21
108422	2X0.34	4.8	7	23
108424	2X0.5	5.0	10	27
108426	2X0.75	5.6	14	35
108428	3X0.14	4.3	4	19
108430	3X0.25	4.8	7	24
108432	3X0.34	5.0	10	28
108434	3G0.5	5.2	14	34
108436	3G0.75	5.9	22	44
108438	4X0.14	4.6	5	21
108440	4X0.25	5.0	10	28
108442	4X0.34	5.3	13	33
108444	4G0.5	5.5	19	40
108458	4G0.75	6.5	29	56
108460	4G1	7.0	38	70
108462	4G1.5	8.0	58	95
108464	5X0.14	4.8	7	24
108466	5X0.25	5.4	12	33
108468	5X0.34	5.6	16	38
108470	5G0.5	5.9	24	47
108472	5G0.75	6.9	36	67
108474	5G1	7.5	48	84
108476	5G1.5	8.8	72	118
108482	6X0.14	5.1	8	27
108484	6X0.25	5.7	14	37
108487	6X0.34	6.0	20	44
108489	6G0.5	6.5	29	57
108491	6G0.75	7.4	43	77
108493	7X0.14	5.3	9	29
108495	7X0.25	5.9	17	41
108497	7X0.34	6.5	23	51
108500	7G0.5	6.8	34	64
108502	7G0.75	7.9	50	87
108504	7G1	8.7	67	114
108507	7G1.5	10.1	101	156
108509	10X0.14	5.8	13	37
108511	10X0.25	6.8	24	55
108513	10X0.34	7.2	33	66
108515	10G0.5	7.6	48	84
108518	10G0.75	9.1	72	119
108520	12X0.14	5.9	16	40
108522	12X0.25	7.0	29	62
108524	12X0.34	7.4	39	75
108526	12G0.5	7.9	58	96
108528	12G0.75	9.3	86	136



## ÖLFLEX® CLEANROOM FD 8661 MC FR

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 MC FR

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 MC FR



**i Info**

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Product features

- IEC 60332-1-2 flame retardant
- Low-adhesive surface
- No dust emission

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Norm references / Approvals

- CLEANROOM classification for IPA Class 2
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

### Technical data

- Conductor stranding**  
extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>
- Minimum bending radius**  
For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter
- Nominal voltage**  
300/500 V
- Test voltage**  
1500 V
- Range of temperature**  
Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 MC FR</b>				
108022	2X0.14	3.6	3	16
108024	2X0.25	4.0	5	21
108026	2X0.34	4.2	7	24
108030	2X0.5	4.4	10	28
108032	2X0.75	5.0	14	36
108034	3X0.14	3.7	4	19
108036	3X0.25	4.2	7	25
108038	3X0.34	4.4	10	29
108040	3G0.5	4.6	14	34
108042	3G0.75	5.3	22	46
108049	4X0.14	4.0	5	22
108051	4X0.25	4.4	10	29
108053	4X0.34	4.7	13	34
108055	4G0.5	4.9	19	42
108057	4G0.75	5.7	29	56
108059	4G1	6.4	38	73
108061	4G1.5	7.3	58	99
108063	5X0.14	4.2	7	25
108065	5X0.25	4.8	12	34
108067	5X0.34	5.0	16	40
108069	5G0.5	5.3	24	49
108071	5G0.75	6.3	36	69
108073	5G1	6.9	48	87
108075	5G1.5	8.0	72	118
108077	6X0.14	4.6	8	28
108079	6X0.25	5.2	14	39
108081	6X0.34	5.5	20	46
108083	6G0.5	5.8	29	57
108085	6G0.75	7.0	43	81
108087	7X0.14	4.8	9	31
108089	7X0.25	5.5	17	43
108091	7X0.34	5.8	23	52
108093	7G0.5	6.4	34	67
108095	7G0.75	7.4	50	91
108097	7G1	8.0	67	116
108099	7G1.5	9.6	101	164
108101	10X0.14	5.4	13	39
108103	10X0.25	6.4	33	59
108105	10X0.34	6.8	48	70
108107	10G0.5	7.2	48	88
108109	10G0.75	8.6	72	125
108113	12X0.14	5.5	16	43
108115	12X0.25	6.5	29	65
108117	12X0.34	6.9	39	79
108119	12G0.5	7.4	58	100
108121	12G0.75	8.8	86	143

ÖLFLEX® UNITRONIC® ETHERLINE® HITRONIC® EPIC® SKINTOP® SILVYN® FLEXIMARK® ACCESSORIES APPENDIX



# ÖLFLEX® CLEANROOM FD 8661 MC

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 MC



**i Info**

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Product features

- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

### Technical data

- Conductor stranding**  
extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>
- Minimum bending radius**  
For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter
- Nominal voltage**  
300/500 V
- Test voltage**  
1500 V
- Range of temperature**  
Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 MC</b>				
108021	2X0.14	3.6	3	14
108023	2X0.25	4.0	5	18
108025	2X0.34	4.2	7	20
108029	2X0.5	4.4	10	24
108031	2X0.75	5.0	14	32
108033	3X0.14	3.7	4	16
108035	3X0.25	4.2	7	21
108037	3X0.34	4.4	10	25
108039	3G0.5	4.6	14	30
108041	3G0.75	5.3	22	41
108048	4X0.14	4.0	5	18
108050	4X0.25	4.4	10	25
108052	4X0.34	4.7	13	30
108054	4G0.5	4.9	19	37
108056	4G0.75	5.7	29	50
108058	4G1	6.4	38	66
108060	4G1.5	7.3	58	91
108062	5X0.14	4.2	7	21
108064	5X0.25	4.8	12	29
108066	5X0.34	5.0	16	35
108068	5G0.5	5.3	24	44
108070	5G0.75	6.3	36	63
108072	5G1	6.9	48	80
108074	5G1.5	8.0	72	110
108076	6X0.14	4.6	8	24
108078	6X0.25	5.2	14	34
108080	6X0.34	5.5	20	41
108082	6G0.5	5.8	29	52
108084	6G0.75	7.0	43	74
108086	7X0.14	4.8	9	27
108088	7X0.25	5.5	17	38
108090	7X0.34	5.8	23	46
108092	7G0.5	6.4	34	61
108094	7G0.75	7.4	50	83
108096	7G1	8.0	67	107
108098	7G1.5	9.6	101	152
108100	10X0.14	5.4	13	34
108102	10X0.25	6.4	33	52
108104	10X0.34	6.8	48	63
108106	10G0.5	7.2	48	81
108108	10G0.75	8.6	72	115
108112	12X0.14	5.5	16	38
108114	12X0.25	6.5	29	59
108116	12X0.34	6.9	39	72
108118	12G0.5	7.4	58	92
108120	12G0.75	8.8	86	132

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 EPIC®  
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 ACCESSORIES  
 APPENDIX





## ÖLFLEX® CLEANROOM FD 8661 TP D FR

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 TP D FR



**i Info**

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance
- Spiral copper shield

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Copper shielding protects against electromagnetic interference

### Product features

- IEC 60332-1-2 flame retardant
- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 2
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- TP structure
- Spiral shield made of tinned copper wires
- Wrapping of Teflon tape
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

**Technical data**

**Conductor stranding**  
 extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>

**Minimum bending radius**  
 For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter

**Nominal voltage**  
 300/500 V

**Test voltage**  
 1500 V

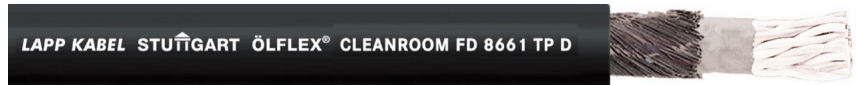
**Range of temperature**  
 Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 TP D FR</b>				
108300	2P0.14	5.2	5	28
108664	3P0.14	5.4	8	33
108302	4P0.14	5.8	11	38
108666	5P0.14	6.4	13	47
108304	8P0.14	7.6	22	64
108668	2P0.25	5.8	10	37
108670	3P0.25	6.3	14	44
108672	4P0.25	6.8	19	56
108674	5P0.25	7.3	24	64
108676	8P0.25	9.1	38	96
108306	2P0.34	6.4	13	45
108678	3P0.34	6.7	20	55
108308	4P0.34	7.2	26	65
108680	5P0.34	7.8	33	76
108310	8P0.34	9.7	52	115
108682	2P0.5	6.7	19	54
108684	3P0.5	7.0	29	66
108686	4P0.5	7.6	38	80
108688	5P0.5	8.4	48	95
108690	8P0.5	10.3	77	144
108312	2P0.75	7.7	29	70
108692	3P0.75	8.1	43	88
108694	2P1	8.6	38	90
108696	3P1	9.0	58	115
108698	2P1.5	9.9	58	119
108700	3P1.5	10.4	86	154



## ÖLFLEX® CLEANROOM FD 8661 TP D

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 TP D



### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Copper shielding protects against electromagnetic interference

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product features

- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- TP structure
- Spiral shield made of tinned copper wires
- Wrapping of Teflon tape
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

### Info

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance
- Spiral copper shield

### Technical data

- Conductor stranding**  
 extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>
- Minimum bending radius**  
 For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter
- Nominal voltage**  
 300/500 V
- Test voltage**  
 1500 V
- Range of temperature**  
 Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 8661 TP D</b>				
108299	2P0.14	5.2	5	24
108663	3P0.14	5.4	8	28
108301	4P0.14	5.8	11	33
108743	5P0.14	6.4	13	40
108303	8P0.14	7.6	22	56
108667	2P0.25	5.8	10	31
108669	3P0.25	6.3	14	38
108671	4P0.25	6.8	19	49
108673	5P0.25	7.3	24	57
108675	8P0.25	9.1	38	85
108305	2P0.34	6.4	13	39
108677	3P0.34	6.7	20	48
108307	4P0.34	7.2	26	58
108679	5P0.34	7.8	33	68
108309	8P0.34	9.7	52	104
108681	2P0.5	6.7	19	47
108683	3P0.5	7.0	29	59
108685	4P0.5	7.6	38	72
108687	5P0.5	8.4	48	86
108689	8P0.5	10.3	77	132
108311	2P0.75	7.7	29	62
108691	3P0.75	8.1	43	80
108693	2P1	8.6	38	80
108695	3P1	9.0	58	104
108697	2P1.5	9.9	58	107
108699	3P1.5	10.4	86	142



## ÖLFLEX® CLEANROOM FD 866 1 TP FR

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 TP FR

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 8661 TP FR



### Info

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product features

- IEC 60332-1-2 flame retardant
- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- TP structure
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

### Technical data



#### Conductor stranding

extra flexible tinned copper strands according to class 6 up to 0.5mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>



#### Minimum bending radius

For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter



#### Nominal voltage

300/500 V



#### Test voltage

1500 V



#### Range of temperature

Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 866 1 TP FR</b>				
108123	2P0.14	4.7	5	26
108125	3P0.14	5.0	8	30
108127	4P0.14	5.3	11	35
108129	5P0.14	5.7	13	41
108131	8P0.14	7.2	22	61
108133	2P0.25	5.4	10	34
108135	3P0.25	5.7	14	41
108137	4P0.25	6.3	19	53
108139	5P0.25	6.8	24	61
108141	8P0.25	8.6	38	92
108143	2P0.34	5.7	13	40
108145	3P0.34	6.2	20	52
108147	4P0.34	6.7	26	62
108149	5P0.34	7.3	33	73
108151	8P0.34	9.2	52	111
108153	2P0.5	6.2	19	51
108155	3P0.5	6.6	29	63
108157	4P0.5	7.1	38	77
108159	5P0.5	7.7	48	91
108161	8P0.5	9.8	77	139
108163	2P0.75	7.2	29	66
108165	3P0.75	7.6	43	85
108167	2P1	7.9	38	82
108169	3P1	8.5	58	110
108171	2P1.5	9.4	58	114
108173	3P1.5	9.9	86	150



## ÖLFLEX® CLEANROOM FD 866 1 TP

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 866 1 TP

LAPP KABEL STUTTGART ÖLFLEX® CLEANROOM FD 866 1 TP



### Info

- Low voltage power and control cable for CLEANROOM
- Improved characteristic in the moving performance

### Benefits

- High performance moving solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter

### Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and regulating circuits
- Assembly lines, production lines, in all kinds of machines
- High mechanical stress in CLEANROOM conditions

### Product features

- Low-adhesive surface
- No dust emission

### Norm references / Approvals

- CLEANROOM classification for IPA Class 1
- Power Chain application: Compliance with Assembly Guidelines Appendix T3

### Product Make-up

- Conductor : Extra-fine wire strand made of class 6 tinned copper or bare copper wires
- Core insulation : Halogen free TPE compound
- Core insulation colour : White
- TP structure
- Outer sheath : Halogen free TPV compound
- Outer sheath colour : Black

### Technical data



#### Conductor stranding

extra flexible tinned copper strands according to class 6 up to 0.5 mm<sup>2</sup> and extra flexible bare copper strands for cross section over 0.5mm<sup>2</sup>



#### Minimum bending radius

For flexible use: 7.5 x outer diameter, Fixed installation: 4 x outer diameter



#### Nominal voltage

300/500 V



#### Test voltage

1500 V



#### Range of temperature

Flexing: -30°C up to +80 °C

Article number	Description EN	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
<b>ÖLFLEX® CLEANROOM FD 866 1 TP</b>				
108122	2P0.14	4.7	5	22
108124	3P0.14	5.0	8	26
108126	4P0.14	5.3	11	31
108128	5P0.14	5.7	13	35
108130	8P0.14	7.2	22	53
108132	2P0.25	5.4	10	29
108134	3P0.25	5.7	14	36
108136	4P0.25	6.3	19	46
108138	5P0.25	6.8	24	54
108140	8P0.25	8.6	38	82
108142	2P0.34	5.7	13	34
108144	3P0.34	6.2	20	45
108146	4P0.34	6.7	26	55
108148	5P0.34	7.3	33	65
108150	8P0.34	9.2	52	100
108152	2P0.5	6.2	19	44
108154	3P0.5	6.6	29	56
108156	4P0.5	7.1	38	70
108158	5P0.5	7.7	48	83
108160	8P0.5	9.8	77	127
108162	2P0.75	7.2	29	59
108164	3P0.75	7.6	43	77
108166	2P1	7.9	38	73
108168	3P1	8.5	58	100
108170	2P1.5	9.4	58	103
108172	3P1.5	9.9	86	138