

# PUR encoder cables, c-track suitable · For highest requirements

## LÜTZE SUPERFLEX® PLUS (C) PUR SERVO Feedback typical capacitance wires cULus



### Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE cable insulation optimally suited for c-tracks, extremely harsh operating conditions, aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

### Properties

- High active and passive interference-resistance (EMC)
- Braided shield optimised for continuous flexible use
- Very good alternating bending strength
- Low adhesion, abrasion-proof, nick-resistant, tear-propagation-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Good industrial- and salt water resistance
- Excellent coolant and lubricant resistance
- Widely resistant to oils, greases, alcohol-free benzines and kerosene (see tech. information)
- Free from paint wetting disruptive substances (LABS-free), RoHS-compliant

### Technical data

UL approval	30 V 80°C / 300 V 80°C
Rated voltage	300 V
Test voltage	2000 V for UL 300 V 500 V for UL 30 V
Insulation resistance	min. 200 MΩ × km
Temperature range	
moving	-25 °C to +80 °C
fixed	-40 °C to +80 °C
Minimum bending radius	
moving	Cable diameter × 12
fixed	Cable diameter × 6
Burning behaviour	Flame-retardant according to VDE 0482 part 265-2; DIN EN 20265-2; IEC 60332-1; UL 1581 section 1080 VW-1; CSA FT 1
Halogen-free	according to DIN EN 50264-1, EN 50267-2-1 and EN 60684-2

### Design

- Bare copper wire, finest multi-strand according to DIN VDE 0295 class 6, IEC 60228 class 6
- Special TPE conductor insulation, UL qualified
- Conductors colour-coded for specific system
- Conductors twisted without mechanical stress, layer pitch optimised
- Non-woven material over stranded cable
- Meshwork from tinned copper wire braid, optical covering ≥ 85 %
- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour green RAL 6018 or orange RAL 2003 or black RAL 9005

Part-No.	Number of strands/cross-section/ strand colours	cULus	Outer-Ø approx. mm	Weight kg/100 m	Cu-Index kg/100 m
<b>For Heidenhain system, black jacket</b>					
111476	(4×0.5+4×2×0.14+(4×0.14)STC) 0.5: white, blue, brown/green, whitegreen 4×2×0.14: yellow/violet, green/pink, brown/green, red/black (4×0.14): greenblack, blueblack, yellowblack, redblack	30 V	8.0	12.3	6.1
111478	(4×0.5+4×2×0.14) 0.5: white, blue, whitebrown, whitegreen 0.14: yellow/violet, grey/pink, brown/green, red/black	300 V	8.0	9.0	4.9
<b>For Indramat system, orange jacket</b>					
110941	(2×1.0+4×2×0.25) 0.5: white, brown 0.25: brown/green, grey/pink, blue/violet, red/ black	300 V	8.3	10.0	6.3
110940	(9×0.5) Strand colour according to DIN 47100	300 V	8.8	12.5	6.0
111139	(2×0.5+10×0.14) 0.5: white, brown 0.14: white, brown, green, yellow, grey, pink, blue, red, black, violet	300 V	6.9	7.0	4.2
111495	(4×1.0+4×2×0.14+(4×0.14)) 1.0: blue, whitegreen, brown/green, white 0.14: grey/pink, yellow/violet, green/brown, red/black 0.14: greenblack, blueblack, yellowblack, redblack	30 V	9.5	13.7	8.6
<b>For Siemens system, green jacket</b>					
111452	(2×2×0.18) Star quad, black, red, orange, brown	30 V	5.0	4.2	2.2
111453	(4×2×0.18) black/brown, red/orange, green/yellow, blue/ violet	30 V	6.4	7.6	3.2
111412	(8×2×0.18) black/brown, red/orange, yellow/green, blue/ violet, grey/white, whiteblack/whitebrown, whitered/whiteorange, whitegreen/whiteyellow	30 V	8.1	13.1	7.3
111454	(12×0.23) black, brown, red, orange, green, yellow, blue, violet, grey, white, whiteblack, whitebrown	30 V	6.7	8.5	4.7
111455	(4×0.5+4×2×0.14) 0.5: white, blue, whitegreen, brown/green 0.14: yellow/violet; grey/pink; white/green; brown/green	300 V	8.0	9.0	4.9
111459	(2×(0.5)+3×(2×0.14)) 0.5: black, red 0.14: black/brown, red/orange, green/yellow	300 V	8.7	10.4	7.5
111456	(4×0.5+4×2×0.38) 0.5: whiteblue, whiteblack, whitered, whiteyellow 0.38: black/brown, red/orange, green/yellow, blue/violet	300 V	9.2	13.2	8.6
111457	(2×0.5+3×(2×0.14)+4×0.23+4×0.14) 0.5: brownblue, brownred 0.23: greenblack, greenred, brownyellow, brown/grey (0.14) black/brown, red/orange, yellow/green 0.14: blue, grey, whiteblack, whiteyellow	30 V	10.3	15.3	9.3
111458	(2×0.5+3×(2×0.14)+4×0.14) 0.5: brownblue, brownred (0.14) black/brown, red/orange, green/yellow 0.14: blue, grey, whiteblack, whiteyellow	30 V	8.5	12.2	6.1
111499	(2×0.5+3×2×0.14) 0.5: white, brown 0.14: green/yellow, grey/pink, blue/red	300 V	10.3	11.0	6.6

CE These products are in conformity to the EC Low Voltage Directive 73/23/EWG or 93/68/EWG respectively

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- Full polyurethane jacket, matt, adhesion-free surface
- Jacket colour green RAL 6018 or orange RAL 2003

Part-No.	Number of strands/cross-section/ strand colours	Jacket colour	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
<b>For Fanuc system</b>					
111490	(5×0.5+1×2×0.18) 0.5: green, grey, grey, pink, blue 0.14: white/brown	green	7.5	8.1	4.9
111491	(5×0.5+2×2×0.18) 0.5: green, grey, grey, pink, blue 0.14: white/brown, black/violet	green	7.8	9.3	6.3
111492	(6×0.5+3×2×0.18) 0.5: black 1-3, red 4-6 0.14: black/red, white/red, black/white	green	8.7	9.8	6.3
<b>For NUM system</b>					
111416	4×(2×AWG22) black/white, black/green, black/blue, black/red	green	10.3	11.0	6.6
111417	4×(2×AWG2)+2×(2×2) 0.5: black/orange, black/green 0.22: black/white, black/pink, black/ blue, black/red	green	12.5	18.0	11.9
<b>For Berger Lahr system</b>					
111479	(1×2×0.5+5×2×0.25) 0.5: blue, red 0.25: white/brown, green/yellow, grey/ pink, black/violet, greypink/redblue	green	8.7	14.0	5.8
<b>For B+R system</b>					
111437	(3×2×AWG24/19) white/brown, green/yellow, grey/pink	green	6.6	6.9	2.7
111438	(2×0.5+5×2×0.14) 0.5: blue, red 0.25: white/brown, green/yellow, grey/ pink, black/violet, greypink/redblue	orange	7.8	12.5	5.0

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Part-No.	Number of strands/cross-section/ strand colours	Jacket colour	Outer-∅ approx. mm	Weight kg/100 m	Cu-Index kg/100 m
<b>For Heidenhain System</b>					
111092	(2×0.5+10×0.14) 0.5: white, brown 0.14: white, brown, green, yellow, grey, pink, blue, red, black, violet	orange	6.6	7.0	4.6
111093	(4×0.5+10×0.14) 0.5: white, brown, green, yellow 0.14: white, brown, green, yellow, grey, pink, blue, red, black, violet	orange	7.6	8.5	5.6
111094	(2×(0.5)+3×(2×0.14)) 0.5: white, brown 0.14: green/yellow, grey/pink, blue/red	orange	8.4	10.0	5.7
111100	(4×0.5+4×2×0.14) 0.5: white, blue, whitegreen, brown- green 0.14: yellow/violet, brown/green, black/ red, grey/pink	orange	8.0	9.3	4.9
111101	(2×1.0+3×(2×0.14)) 0.5: white, brown 0.14: green/yellow, grey/pink blue/red	orange	8.0	9.2	5.8

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