

# UNITRONIC® LiHH/LiHCH/LiHCH (TP)

Multi-Conductor & Multi-Pair, Halogen-Free, Low-Voltage Communication & Control Cable



UNITRONIC® LiHH/LiHCH is a halogen-free multi-conductor cable for communication, signal, and control applications. It is designed for general purpose installations of electrical machinery where human safety is a concern in case of a fire. UNITRONIC® LiHCH has a tinned copper braid for RFI & EMC protection. UNITRONIC® LiHCH (TP) is an overall-shielded multi-paired version for data, communication, and signal applications.

## Recommended Applications

RS-232; data buses; process control instrumentation; low-voltage signaling and interconnect; broadcast; applications with European DIN 47100 color code where human safety is a concern

## Approvals



## Unshielded Construction

- Conductors:** Stranded bare copper
- Insulation:** Special halogen-free compound
- Jacket:** Special halogen-free compound; pebble gray

## Shielded Construction

- Conductors:** Stranded bare copper
- Pairs:** Special halogen-free compound
- Insulation:** Special halogen-free compound
- Shielding:** Tinned copper braid
- Jacket:** Special halogen-free compound; pebble gray

## Application Advantage

- Low Smoke, Zero Halogen
- European color code DIN 47100
- Extended temperature range of -30°C to +80°C
- Low smoke density and low amount of corrosive gases if on fire

Cable Attributes		page 640	
OIL	OR-01	FLAME	FR-02
MOTION	FL-01	MECH.	MP-02

Complete the Installation	
SKINTOP® Strain Relief	page 488
EPIC® Connectors	page 280

## Technical Data

<b>Minimum Bend Radius:</b>		<b>Insulation Resistance:</b>	20 GΩ x cm
- for installation:	6 x cable diameter	<b>Inductance:</b>	Nominal 0.65 mH/km
- shielded:	6 x cable diameter	<b>Mutual Capacitance:</b>	
<b>Temperature Range:</b>		- Conductor/conductor:	24 pF/ft
- for stationary use:	-30°C to +80°C	- Conductor/shield:	37 pF/ft
- for flexible use:	-5°C to +70°C	<b>Color Code:</b>	
<b>Nominal Voltage:</b>	250V	- UNITRONIC® LiHH/LiHCH:	DIN 47100: Chart 8, page 674
<b>Test Voltage:</b>	1200V	- UNITRONIC® LiHCH (TP):	DIN 47100: Chart 7, page 674
<b>Conductor Stranding:</b>	Fine wire	<b>Approvals:</b>	Based on VDE 0812 RoHS

If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question. For current information go to our website.

UNITRONIC® LIHH

Part Number	Number of Conductors	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread	Part Number	Number of Conductors	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® Non-Metallic PG Thread
<b>26 AWG (0.14 mm<sup>2</sup>)</b>						<b>22 AWG (0.34 mm<sup>2</sup>)</b>					
0037100	2	0.134 3.4	2	8	S1107	0037129	16	0.311 7.9	26	57	S1111
0037101	3	0.142 3.6	3	10	S1107	0037140	2	0.173 4.4	5	19	S1107
0037102	4	0.150 3.8	4	11	S1107	0037141	3	0.181 4.6	7	20	S1107
0037103	5	0.161 4.1	5	15	S1107	0037142	4	0.197 5.0	9	27	S1107
0037104	6	0.173 4.4	6	17	S1107	0037143	5	0.224 5.7	11	30	S1107
0037105	7	0.173 4.4	7	17	S1107	0037144	7	0.240 6.1	16	40	S1107
0037106	8	0.201 5.1	8	19	S1107	0037146	10	0.307 7.8	22	54	S1111
0037107	10	0.213 5.4	10	24	S1107	0037147	12	0.315 8.0	27	65	S1111
0037108	12	0.228 5.8	11	29	S1107	<b>20 AWG (0.50 mm<sup>2</sup>)</b>					
0037109	20	0.283 7.2	19	49	S1111	0037150	2	0.193 4.9	7	21	S1107
0037110	25	0.315 8.0	24	61	S1111	0037151	3	0.205 5.2	10	25	S1107
<b>24 AWG (0.25 mm<sup>2</sup>)</b>						0037152	4	0.228 5.8	13	30	S1107
0037120	2	0.157 4.0	4	15	S1107	0037153	5	0.248 6.3	17	39	S1109
0037121	3	0.165 4.2	5	17	S1107	0037154	7	0.276 7.0	23	48	S1111
0037122	4	0.177 4.5	7	19	S1107	0037155	12	0.358 9.1	39	79	S1111
0037123	5	0.193 4.9	9	23	S1107	<b>18 AWG (1.00 mm<sup>2</sup>)</b>					
0037124	6	0.209 5.3	10	26	S1107	0037171	3	0.240 6.1	20	38	S1107
0037125	7	0.209 5.3	12	28	S1107	0037172	4	0.260 6.6	26	45	S1109
0037126	8	0.252 6.4	13	34	S1109	<b>16 AWG (1.50 mm<sup>2</sup>)</b>					
0037127	10	0.276 7.0	17	40	S1111	0037181	3	0.291 7.4	30	48	S1111
0037128	12	0.283 7.2	20	45	S1111	0037182	4	0.315 8.0	39	58	S1111

UNITRONIC® LIHCH

Part Number	Number of Conductors	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Conductors	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
<b>26 AWG (0.14 mm<sup>2</sup>)</b>						<b>20 AWG (0.50 mm<sup>2</sup>)</b>					
0037302	2	0.161 4.1	9	15	53112210	0037508	8	0.315 8.0	31	56	53112220
0037303	3	0.169 4.3	10	17	53112210	0037510	10	0.335 8.5	43	68	53112220
0037304	4	0.177 4.5	11	19	53112210	0037516	16	0.378 9.6	64	108	53112230
0037306	6	0.201 5.1	15	24	53112210	0037525	25	0.476 12.1	97	174	53112240
0037307	7	0.201 5.1	17	26	53112210	<b>18 AWG (1.00 mm<sup>2</sup>)</b>					
0037308	8	0.236 6.0	18	28	53112210	0037602	2	0.228 5.8	20	26	53112210
0037312	12	0.256 6.5	21	52	53112210	0037603	3	0.240 6.1	24	32	53112210
0037316	16	0.283 7.2	29	60	53112220	0037604	4	0.256 6.5	31	45	53112210
0037325	25	0.343 8.7	43	100	53112220	0037605	5	0.283 7.2	34	51	53112220
<b>24 AWG (0.25 mm<sup>2</sup>)</b>						0037606	6	0.307 7.8	40	56	53112220
0037402	2	0.185 4.7	11	17	53112210	0037607	7	0.307 7.8	46	61	53112220
0037403	3	0.193 4.9	13	20	53112210	0037608	8	0.350 8.9	51	70	53112220
0037404	4	0.205 5.2	15	24	53112210	0037610	10	0.374 9.5	63	88	53112230
0037406	6	0.244 6.2	21	33	53112210	0037612	12	0.386 9.8	67	119	53112230
0037407	7	0.244 6.2	22	35	53112210	0037618	18	0.461 11.7	91	161	53112240
0037408	8	0.287 7.3	24	39	53112220	0037625	25	0.547 13.9	142	237	53112250
0037410	10	0.303 7.7	29	54	53112220	<b>16 AWG (1.50 mm<sup>2</sup>)</b>					
0037425	25	0.429 10.9	77	116	53112230	0037802	2	0.256 6.5	29	48	53112210
<b>22 AWG (0.34 mm<sup>2</sup>)</b>						0037803	3	0.276 7.0	38	60	53112210
0037502	2	0.201 5.1	12	20	53112210	0037804	4	0.295 7.5	46	73	53112220
0037503	3	0.209 5.3	15	24	53112210	0037807	7	0.346 8.8	80	115	53112220
0037504	4	0.232 5.9	17	28	53112210	<b>16 AWG (1.50 mm<sup>2</sup>)</b>					
0037505	5	0.252 6.4	21	36	53112210	0037902	2	0.303 7.7	39	60	53112220
0037507	7	0.276 7.0	29	49	53112210	0037903	3	0.319 8.1	50	77	53112220
						0037905	5	0.374 9.5	87	118	53112230

UNITRONIC® LIHCH (TP)

Part Number	Number of Pairs	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread	Part Number	Number of Pairs	Nominal Outer Diameter (in) (mm)	Copper Weight (lbs/mft)	Approx. Weight (lbs/mft)	SKINTOP® MS-SC PG Thread
<b>26 AWG (0.14 mm<sup>2</sup>)</b>						<b>20 AWG (0.50 mm<sup>2</sup>)</b>					
0038302	2	0.232 5.9	13	26	53112210	0038408	8	0.413 10.5	52	87	53112230
0038303	3	0.236 6.0	16	32	53112210	0038412	12	0.453 11.5	81	128	53112240
0038304	4	0.252 6.4	18	36	53112210	0038416	16	0.500 12.7	99	160	53112240
0038306	6	0.287 7.3	33	57	53112220	<b>18 AWG (1.00 mm<sup>2</sup>)</b>					
0038308	8	0.331 8.4	37	65	53112220	0038602	2	0.346 8.8	33	62	53112220
0038310	10	0.350 8.9	40	74	53112220	0038603	3	0.350 8.9	50	87	53112220
0038312	12	0.358 9.1	45	95	53112220	0038604	4	0.378 9.6	56	98	53112230
0038316	16	0.409 10.4	54	103	53112230	0038606	6	0.445 11.3	74	133	53112240
0038320	20	0.453 11.5	66	124	53112240	0038608	8	0.524 13.3	94	174	53112240
0038325	25	0.500 12.7	76	160	53112240	0038612	12	0.594 15.1	134	238	53112250
<b>24 AWG (0.25 mm<sup>2</sup>)</b>						0038616	16	0.657 16.7	162	308	53112250
0038402	2	0.283 7.2	19	36	53112220	<b>18 AWG (1.00 mm<sup>2</sup>)</b>					
0038403	3	0.287 7.3	27	44	53112220	0038802	2	0.413 10.5	57	95	53112230
0038404	4	0.307 7.8	31	54	53112220	0038803	3	0.417 10.6	65	116	53112230
0038406	6	0.343 8.7	47	77	53112220	0038804	4	0.453 11.5	82	142	53112240
						0038805	5	0.472 12	109	179	53112240

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section. If not otherwise specified, all values relating to the product are nominal values. For current information go to our website.