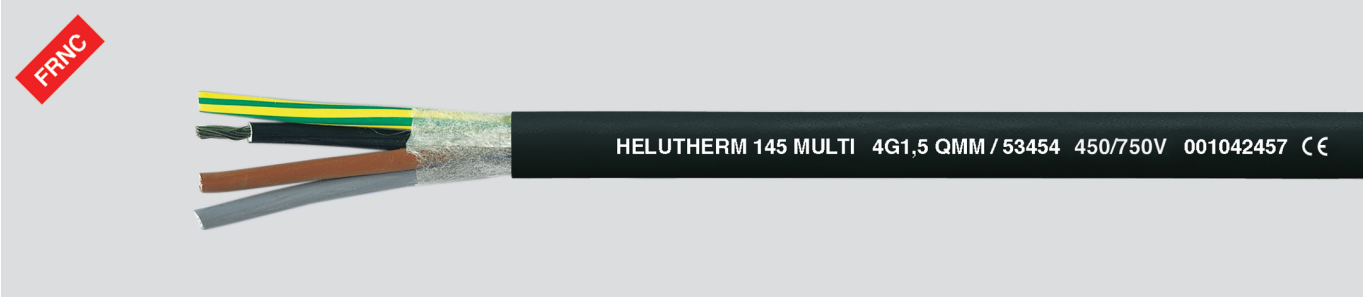
HELUTHERM® 145 MULTI

flexible, cross-linked, halogen-free, meter marking



Technical data

- Halogen-free control and connecting cable with increased heat resistance
- **Temperature range**
  flexing -35°C to +120°C
  fixed installation -55°C to +145°C
  in short-circuit +250°C
- **Nominal voltage**
  up to 1 mm² U_0/U 300/500 V
  from 1,5 mm² U_0/U 450/750 V
  with protected fixed installation
  from 1,5 mm² U_0/U 600/1000 V
- **Test voltage**
  3000 V
- **Minimum bending radius**
  flexing 8x cable Ø
  fixed installation 4x cable Ø
- **Caloric load values**
  see "Technical Informations"
- **Current rating**
  see "Technical Informations"
- **Approval**
  Germanischer Lloyd

Cable structure

- Tinned copper conductor, acc. to DIN VDE 0295 cl.5, fine wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation: cross-linked polyolefin-copolymer
- Core identification to DIN VDE 0293-308
  - up to 5 cores coloured
  - from 6 cores, black with continuous white numbering
- GN-YE conductor, 3 cores and above
- 1-core version - core colour BK or GN-YE
- Cores stranded in layers with optimal lay length
- Fleece wrapping
- Outer sheath: cross-linked polyolefin-copolymer
- Sheath colour: black
- With meter marking

Note

- G = with GN-YE conductor
  x = without GN-YE conductor
- AWG sizes are approximate equivalent values. The actual cross section is in mm².
- Screened analogue type:
  HELUTHERM® 145 MULTI-C

Properties

- Reduced flame propagation
- Good abrasion and notch resistance
- Good resistance to weathering
- Resistant to UV radiation and ozone
- Resistant to melting, even when in contact with a soldering iron with temperatures from 300°C to 380°C
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Tests

- Flame test
  acc. to DIN VDE 0482-332-3-22, DIN EN 60332-3-22, IEC 60332-3-22, BS 4066 part 3
- Flame test
  acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
- Halogen-free
  acc. to DIN VDE 0482-754-1, DIN EN 60754-1, IEC 60754-1
- Corrosiveness of combustion gases
  acc. to DIN VDE 0482-754-2, DIN EN 60754-2, IEC 60754-2
- Smoke density acc. to DIN VDE 0482 part 1034-1+2, DIN EN 61034-1+2, IEC 61034-1+2, BS 7622 part 1+2

Application

These cross-linked and temperature resistant wiring and control cables with enhanced fire-behaviour properties are used for wiring up the lighting fixtures, heaters, electric machines, switching systems and distribution switchboards. A very long service life is also given on account of their excellent high-temperature stability. These cables exhibit good resistance to weathering as well as being very stable to temperature, moisture, ozone and UV radiation. These cables are therefore mainly used for traffic control systems and diverse outdoor applications. The development of smoke is low and no corrosive gases are liberated during combustion of these halogen-free cables in case of fire. The risk of toxic fumes is considerably less in the event of fire because the coloric load values is lower. Precious time can thus be won for a disciplined evacuation, and unnecessary loss of life can be prevented. The extent of the damage to costly control and monitoring systems and the concrete and steel structures of buildings and plant due to fire is reduced by this. Injuries to persons and damage to materials can be prevented. A lower conductor cross section is possible in certain circumstances because of the high thermal load and thus savings in the space and weight required can be made. These wiring and control cables provide a significant contribution in safety engineering and environmental protection.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
53376	1 x 0,25	2,9	2,0	11,0	24
52630	1 G 0,25	2,9	2,0	11,0	24
53377	2 x 0,25	4,6	5,0	29,0	24
53378	3 G 0,25	4,9	7,0	34,0	24
53379	4 G 0,25	5,5	10,0	42,0	24
53380	5 G 0,25	5,8	12,0	47,0	24

Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
53381	6 G 0,25	6,5	14,4	58,0	24
53382	7 G 0,25	6,9	16,8	64,0	24
53383	8 G 0,25	7,3	19,2	71,0	24
53384	10 G 0,25	8,1	24,0	84,0	24
53385	12 G 0,25	8,1	28,8	90,0	24
53386	14 G 0,25	8,6	33,6	102,0	24

Continuation ▸

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Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app.kg / km	AWG-No.
53387	16 G 0,25	8,9	38,4	114,0	24
53388	19 G 0,25	10,1	45,6	132,0	24
53389	21 G 0,25	10,5	50,4	145,0	24
52631	1 G 0,5	3,2	4,8	15,7	20
53391	1 x 0,5	3,2	4,8	15,7	20
53392	2 x 0,5	5,3	10,0	39,6	20
53393	3 G 0,5	5,5	14,4	48,1	20
53394	4 G 0,5	5,9	19,2	51,0	20
53395	5 G 0,5	7,0	24,0	64,0	20
53396	6 G 0,5	7,4	29,0	74,0	20
53397	7 G 0,5	8,1	34,0	88,0	20
53398	8 G 0,5	8,6	38,4	102,0	20
53399	10 G 0,5	9,4	48,0	123,0	20
53400	12 G 0,5	10,0	58,0	135,0	20
53401	14 G 0,5	10,0	67,0	153,0	20
53402	16 G 0,5	10,7	76,8	176,0	20
53403	19 G 0,5	12,4	91,2	213,0	20
53404	21 G 0,5	13,0	100,8	234,0	20
53405	24 G 0,5	14,0	115,2	263,0	20
53406	25 G 0,5	14,0	120,0	269,0	20
53407	27 G 0,5	14,0	129,6	280,0	20
53408	30 G 0,5	14,6	144,0	311,0	20
53409	33 G 0,5	15,0	158,4	343,0	20
53410	37 G 0,5	17,0	177,6	392,0	20
52632	1 G 0,75	3,5	7,2	19,8	19
53411	1 x 0,75	3,5	7,2	19,8	19
53412	2 x 0,75	6,0	14,0	40,0	19
53413	3 G 0,75	6,4	22,0	53,0	19
53414	4 G 0,75	7,0	29,0	69,0	19
53415	5 G 0,75	7,7	36,0	86,0	19
53416	6 G 0,75	8,3	43,2	101,0	19
53417	7 G 0,75	9,1	50,4	117,0	19
53418	8 G 0,75	10,2	57,6	140,0	19
53419	10 G 0,75	11,1	72,0	167,0	19
53420	12 G 0,75	11,1	86,4	183,0	19
53421	14 G 0,75	11,7	100,8	212,0	19
53422	16 G 0,75	12,5	115,2	239,0	19
53423	19 G 0,75	14,0	136,8	290,0	19
53424	21 G 0,75	15,0	151,2	323,0	19
53425	24 G 0,75	16,0	172,8	364,0	19
53426	25 G 0,75	16,0	180,0	371,0	19
53427	27 G 0,75	16,0	194,4	387,0	19
53428	30 G 0,75	17,0	216,0	429,0	19
53429	33 G 0,75	18,0	237,6	468,0	19
53430	37 G 0,75	19,0	266,4	550,0	19
52633	1 G 1	3,9	9,6	25,2	18
53431	1 x 1	3,9	9,6	25,2	18
53432	2 x 1	6,6	19,0	50,0	18
53433	3 G 1	7,0	29,0	66,0	18
53434	4 G 1	7,7	38,0	86,0	18
53435	5 G 1	8,4	48,0	106,0	18
53436	6 G 1	8,9	57,6	127,0	18
53437	7 G 1	10,2	67,0	155,0	18
53438	8 G 1	11,0	76,8	187,0	18
53439	10 G 1	12,5	96,0	214,0	18
53440	12 G 1	12,5	115,0	230,0	18
53441	14 G 1	12,7	134,4	266,0	18
53442	16 G 1	13,6	153,6	301,0	18
53443	19 G 1	15,7	182,0	377,0	18
53444	21 G 1	16,5	202,0	419,0	18
53445	24 G 1	17,1	230,4	464,0	18
53446	25 G 1	17,1	240,0	472,0	18
53447	27 G 1	17,1	259,2	488,0	18
53448	30 G 1	17,7	288,0	536,0	18
53449	33 G 1	18,9	316,8	605,0	18
53450	37 G 1	20,3	355,2	690,0	18
52634	1 G 1,5	4,3	14,4	32,3	16
53451	1 x 1,5	4,3	14,4	32,3	16
53452	2 x 1,5	7,8	29,0	69,0	16
53453	3 G 1,5	8,3	43,0	93,0	16
53454	4 G 1,5	9,1	58,0	120,0	16
53455	5 G 1,5	10,1	72,0	152,0	16
53456	6 G 1,5	10,9	86,4	187,0	16
53457	7 G 1,5	12,1	101,0	222,0	16
53458	8 G 1,5	14,0	115,2	263,0	16
53459	10 G 1,5	14,6	144,0	308,0	16
53460	12 G 1,5	15,0	172,8	330,0	16
53461	14 G 1,5	15,4	201,6	383,0	16
53462	16 G 1,5	16,2	230,4	438,0	16
53463	19 G 1,5	18,3	273,6	554,0	16
53464	21 G 1,5	19,7	302,4	614,0	16
53465	24 G 1,5	21,1	345,6	791,0	16
53466	25 G 1,5	21,7	360,0	701,0	16
53467	27 G 1,5	21,7	389,0	723,0	16
53468	30 G 1,5	21,8	432,0	796,0	16
53469	33 G 1,5	22,6	475,2	880,0	16
53470	37 G 1,5	24,8	532,8	1026,0	16
52635	1 G 2,5	5,0	24,0	46,9	14

Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Cop. weight kg / km	Weight app.kg / km	AWG-No.
53471	1 x 2,5	5,0	24,0	46,9	14
53472	2 x 2,5	9,0	48,0	99,0	14
53473	3 G 2,5	9,9	72,0	140,0	14
53474	4 G 2,5	10,9	96,0	183,0	14
53475	5 G 2,5	12,2	120,0	231,0	14
53476	6 G 2,5	13,2	144,0	280,0	14
53477	7 G 2,5	14,6	168,0	336,0	14
53478	8 G 2,5	15,7	192,0	397,0	14
53479	10 G 2,5	17,9	240,0	460,0	14
53480	12 G 2,5	17,9	288,0	500,0	14
53481	14 G 2,5	19,2	336,0	593,0	14
53482	16 G 2,5	20,1	384,0	675,0	14
53483	19 G 2,5	22,8	456,0	835,0	14
53484	21 G 2,5	23,7	504,0	939,0	14
53485	24 G 2,5	25,8	576,0	1047,0	14
53486	25 G 2,5	25,8	600,0	1067,0	14
53487	27 G 2,5	25,8	648,0	1107,0	14
53488	30 G 2,5	26,7	720,0	1219,0	14
53489	33 G 2,5	28,0	792,0	1349,0	14
53490	37 G 2,5	30,6	888,0	1565,0	14
52636	1 G 4	5,6	38,4	96,0	12
53491	1 x 4	5,6	38,4	96,0	12
53492	2 x 4	10,7	77,0	159,0	12
53493	3 G 4	11,5	115,0	197,0	12
53494	4 G 4	12,8	154,0	260,0	12
53495	5 G 4	14,2	192,0	329,0	12
53496	6 G 4	14,9	230,4	398,0	12
53497	7 G 4	17,0	269,0	478,0	12
53498	8 G 4	17,6	307,2	553,0	12
53499	10 G 4	20,1	384,0	663,0	12
53500	12 G 4	20,1	460,8	725,0	12
53501	14 G 4	21,5	537,6	797,0	12
52637	1 G 6	6,1	57,6	108,0	10
53502	1 x 6	6,1	57,6	108,0	10
53503	2 x 6	11,6	115,2	216,0	10
53504	3 G 6	12,9	173,0	285,0	10
53505	4 G 6	14,4	230,0	375,0	10
53506	5 G 6	15,8	288,0	465,0	10
53507	6 G 6	16,7	345,6	544,0	10
53508	7 G 6	19,4	403,0	664,0	10
52638	1 G 10	7,7	96,0	144,0	8
53509	1 x 10	7,7	96,0	144,0	8
53510	2 x 10	14,7	192,0	351,0	8
53511	3 G 10	15,7	288,0	475,0	8
53512	4 G 10	18,6	384,0	630,0	8
53513	5 G 10	19,6	480,0	782,0	8
53514	6 G 10	21,7	576,0	914,0	8
53515	7 G 10	24,7	672,0	1092,0	8
52639	1 G 16	8,9	153,6	205,0	6
53516	1 x 16	8,9	153,6	205,0	6
53517	2 x 16	17,7	307,2	495,0	6
53518	3 G 16	19,3	460,8	691,0	6
53519	4 G 16	21,2	614,0	905,0	6
53520	5 G 16	23,6	768,0	1129,0	6
53521	6 G 16	26,2	921,6	1327,0	6
53522	7 G 16	28,6	1075,0	1590,0	6
52640	1 G 25	10,9	240,0	336,0	4
53523	1 x 25	10,9	240,0	336,0	4
53524	2 x 25	21,3	480,0	833,0	4
53525	3 G 25	22,7	720,0	1139,0	4
53526	4 G 25	25,4	960,0	1489,0	4
53527	5 G 25	28,1	1200,0	1863,0	4
53528	6 G 25	31,1	1440,0	2275,0	4
53529	7 G 25	34,5	1680,0	2633,0	4
52641	1 G 35	12,8	336,0	454,0	2
53530	1 x 35	12,8	336,0	454,0	2
53531	2 x 35	23,7	672,0	1104,0	2
53532	3 G 35	25,5	1008,0	1513,0	2
53533	4 G 35	28,4	1344,0	1992,0	2
53534	5 G 35	33,5	1680,0	2488,0	2
52642	1 G 50	14,9	480,0	638,0	1
53535	1 x 50	14,9	480,0	638,0	1
53536	2 x 50	29,3	960,0	1573,0	1
53537	3 G 50	31,5	1440,0	2154,0	1
53538	4 G 50	35,3	1920,0	2819,0	1
53539	5 G 50	39,1	2400,0	3505,0	1
52643	1 G 70	17,3	672,0	875,0	2/0
53540	1 x 70	17,3	672,0	875,0	2/0
53541	2 x 70	33,7	1344,0	2157,0	2/0
53542	3 G 70	36,4	2016,0	2946,0	2/0
53543	4 G 70	41,7	2688,0	3888,0	2/0
53544	5 G 70	44,5	3360,0	4864,0	2/0
52644	1 G 95	20,1	912,0	1149,0	3/0
53545	1 x 95	20,1	912,0	1149,0	3/0
53546	2 x 95	37,5	1824,0	2763,0	3/0
53547	3 G 95	40,0	2736,0	3835,0	3/0
53548	4 G 95	47,7	3648,0	5052,0	3/0
53549	5 G 95	50,7	4560,0	6307,0	3/0

Dimensions and specifications may be changed without prior notice. (RE01)