

# TRAYCONTROL® 600 flexible, oil-resistant, exposed run TC-ER,

PLTC-ER, ITC-ER, NFPA 79, torsion rated



HELUKABEL © TRAYCONTROL 600 P/N 62960 12 AWG (3.31mm2)/4C (UL) TC-ER 90C DRY / WET 600V SUN RES DIR BUR OIL RES I/II E330430 OR MTW "FLEXING" OR WTTTC 1000V OR c(UL) CIC-TC PVC/N FT4 --- LL257839 CSA AWM I/II A/B 90C 600V FT4 CE

## Technical data

- PVC control and power cable acc. to UL Std. 1277 and 2277
- **Temperature range**  
UL/CSA TC -40°C to +90°C  
flexing +5°C to +50°C  
static -40°C to +105°C
- **Nominal voltage**  
UL/CSA TC 600 V  
UL WTTTC 1000 V
- **Test voltage** 3000 V
- **Minimum bending radius**  
flexing 5x cable Ø
- **Insulation resistance**  
min. 20 MOhm x km
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)

## Cable structure

- Finely stranded (Cl. K), bare copper acc. to AWG standards
- Special PVC conductor insulation with transparent nylon coating
- Conductor identification to DIN VDE 0293 black conductors with continuous white numbering
- GN-YE conductor, 3 conductors and above in the outer layer
- Conductors stranded in layers with optimal lay length
- Separator
- Special PVC outer jacket
- Black (RAL 9005) jacket
- With length marking in feet

## Properties

- Self-extinguishing and flame retardant acc. to CSA FT4
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers
- UV-resistant
- Direct burial rated
- Resistant to cleaning and disinfecting agents acc. to



## Tests

- **UL:**  
TC-ER (1277), WTTTC (2277) & DP-1 - (18 AWG-500 kcmil), ITC-ER & PLTC-ER - (20-12 AWG), MTW, NFPA 79, Class I Div. 2 per NEC Art. 501, NEC Art. 336 & 392, Oil Res I/II, 90°C Dry/Wet, -40°C Cold Bend
- **CSA:**  
C22.2 No. 230 & 239 - c(UL) CIC-TC FT4 (18-4/0 AWG), C22.2 No. 210 - AWM I/II A/B FT4

## Note

### Advantages

- TC-ER, Tray Cable Exposed Run
- Simple installation
- Outstanding flexibility
- Torsion resistant for wind power application

## Application

NFPA 79 conformant flexible control and power cable up to 600 V (WTTTC 1000 V), for all machinery in new plant construction. Torsion resistant, exceptional flexibility and abrasion resistance. Suitable for installation in dry, humid and damp environments, outdoors and pipes. For underground installation and for open, unprotected installation from the cable tray to machines in industrial plants.

☑ The product conforms to EC Low-Voltage Directive 2006/95/EC.

Part no.	Cross section mm <sup>2</sup>	No. conductors x AWG-No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
62020	0,507	2 x 20	6,7	10,3	55,0
62021	0,507	3 x 20	7,0	13,7	64,0
62022	0,507	4 x 20	7,5	18,3	74,0
62023	0,507	5 x 20	8,1	22,9	88,0
62024	0,507	7 x 20	8,7	32,0	109,0
62025	0,507	9 x 20	10,1	41,7	137,0
62026	0,507	12 x 20	11,1	55,1	168,0
62027	0,507	18 x 20	12,9	82,9	231,0
62028	0,507	25 x 20	15,7	115,5	335,0
62902	0,963	2 x 18	7,3	19,2	67,0
62903	0,963	3 x 18	7,6	26,8	82,0
62904	0,963	4 x 18	8,2	34,5	100,0
62905	0,963	5 x 18	8,9	44,6	118,0
62906	0,963	7 x 18	9,6	62,7	149,0
62907	0,963	9 x 18	11,0	81,4	186,0
62908	0,963	10 x 18	11,8	90,3	205,0
62909	0,963	12 x 18	12,2	109,5	234,0
62910	0,963	15 x 18	14,4	134,4	314,0
62911	0,963	16 x 18	14,4	143,3	327,0
62912	0,963	18 x 18	15,1	161,3	363,0
62913	0,963	19 x 18	15,1	170,4	369,0
62914	0,963	25 x 18	17,4	188,4	475,0
62915	0,963	27 x 18	17,7	242,3	501,0
62916	0,963	34 x 18	19,7	305,2	618,0

Part no.	Cross section mm <sup>2</sup>	No. conductors x AWG No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
62917	0,963	37 x 18	19,7	332,3	652,0
62918	0,963	41 x 18	21,0	368,3	716,0
62919	0,963	50 x 18	24,0	449,3	912,0
62920	0,963	61 x 18	25,2	548,4	1071,0
62921	1,31	2 x 16	7,8	24,0	79,0
62922	1,31	3 x 16	8,2	36,2	104,0
62923	1,31	4 x 16	8,8	48,1	121,0
62924	1,31	5 x 16	9,6	60,4	143,0
62925	1,31	6 x 16	10,5	72,9	167,0
62926	1,31	7 x 16	10,5	87,8	183,0
62927	1,31	8 x 16	11,2	96,6	208,0
62928	1,31	9 x 16	12,0	108,8	231,0
62929	1,31	10 x 16	13,0	120,8	251,0
62930	1,31	12 x 16	13,4	145,4	289,0
62931	1,31	14 x 16	14,9	169,5	359,0
62932	1,31	15 x 16	15,6	181,6	384,0
62933	1,31	16 x 16	15,6	193,8	402,0
62934	1,31	18 x 16	16,4	218,6	446,0
62935	1,31	19 x 16	16,4	230,1	457,0
62936	1,31	20 x 16	17,1	242,3	482,0
62937	1,31	25 x 16	18,9	303,7	588,0
62938	1,31	27 x 16	19,3	327,4	621,0
62939	1,31	30 x 16	20,0	334,0	685,0
62940	1,31	34 x 16	22,5	412,7	815,0

# TRAYCONTROL® 600 flexible, oil-resistant, open installation

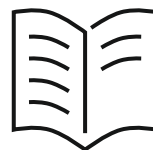
TC-ER, PLTC-ER, ITC-ER, NFPA 79, torsion rated



Part no.	Cross section mm <sup>2</sup>	No. conductors x AWG No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
62941	1,31	40 x 16	23,2	485,9	929,0
62942	1,31	41 x 16	24,0	497,6	952,0
62943	1,31	50 x 16	26,0	607,3	1131,0
62944	1,31	61 x 16	27,5	741,1	1333,0
62945	2,08	2 x 14	8,8	37,7	103,0
62946	2,08	3 x 14	9,2	56,6	131,0
62947	2,08	4 x 14	10,1	75,6	137,0
62948	2,08	5 x 14	10,9	94,5	190,0
62949	2,08	6 x 14	11,9	113,5	228,0
62950	2,08	7 x 14	12,0	132,6	251,0
62951	2,08	9 x 14	14,7	170,7	350,0
62952	2,08	10 x 14	15,8	189,7	384,0
62953	2,08	12 x 14	16,4	233,8	442,0
62954	2,08	16 x 14	18,0	303,9	555,0
62955	2,08	18 x 14	18,9	347,0	615,0
62956	2,08	19 x 14	18,9	361,0	640,0
62957	2,08	25 x 14	22,8	478,0	879,0
62958	3,31	2 x 12	9,7	62,2	137,0
62959	3,31	3 x 12	10,2	93,5	179,0
62960	3,31	4 x 12	11,2	125,2	223,0
62961	3,31	5 x 12	12,2	156,4	271,0
62962	3,31	6 x 12	13,3	187,5	317,0
62963	3,31	7 x 12	13,4	218,8	357,0
62964	3,31	9 x 12	16,4	281,7	484,0
62965	3,31	12 x 12	18,3	376,1	625,0
62966	3,31	16 x 12	20,1	502,0	789,0
11009458	3,31	18 x 12	22,3	564,8	936,0
62967	3,31	19 x 12	22,3	596,2	982,0
62968	3,31	20 x 12	23,3	627,9	1024,0
62969	3,31	25 x 12	25,8	785,3	1257,0
62970	5,26	2 x 10	11,8	99,7	195,0

Part no.	Cross section mm <sup>2</sup>	No. conductors x AWG No.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
62971	5,26	3 x 10	12,5	149,6	260,0
62972	5,26	4 x 10	14,4	200,2	360,0
62973	5,26	5 x 10	15,8	251,2	435,0
62974	5,26	7 x 10	17,1	353,6	570,0
62975	5,26	9 x 10	19,9	449,6	716,0
62976	5,26	12 x 10	23,3	622,8	981,0
11009459	5,26	18 x 10	27,2	958,7	1415,0
62977	5,26	19 x 10	27,2	1031,3	1452,0
11009460	5,26	25 x 10	31,6	1377,1	1833,0
11009461	8,37	3 x 8	17,4	238,1	454,0
62978	8,37	4 x 8	19,2	311,8	573,0
62979	8,37	5 x 8	21,0	390,2	692,0
710466	8,37	7 x 8	23,9	552,6	1009,0
62980	13,3	3 x 6	19,5	378,3	634,0
62981	13,3	4 x 6	22,3	504,9	863,0
62982	13,3	5 x 6	24,5	631,9	1049,0
63134	13,3	7 x 6	26,7	884,0	1391,0
62983	21,2	3 x 4	24,6	598,2	1031,0
62984	21,2	4 x 4	26,9	800,3	1257,0
62985	21,2	5 x 4	29,9	998,1	1540,0
62986	33,6	3 x 2	26,7	937,5	1399,0
62987	33,6	4 x 2	29,4	1250,1	1845,0
62988	33,6	5 x 2	32,3	1564,1	2292,0
62989	42,4	4 x 1	35,6	1549,2	2388,0
62990	53,5	4 x 1/0	37,0	2099,1	2939,0
62991	67,4	4 x 2/0	40,3	2560,8	3568,0
62992	84,7	4 x 3/0	44,0	2938,7	4402,0
62993	107,0	4 x 4/0	46,8	4078,2	5149,0
62994	127,0	4 x 250 kcmil	54,2	4910,9	6416,0
62995	175,0	4 x 350 kcmil	60,6	6989,9	8560,0
62996	256,0	4 x 500 kcmil	71,5	9896,3	12222,0

Dimensions and specifications may be changed without prior notice. (RN01)



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# JZ-602 / OZ-602

90°C, 600 V



## TECHNICAL DATA

PVC control and connection cable acc. to UL Std. 758 (AWM) Style 2587, CSA Std. C22.2 No. 210 - AWM I/II A/B

Temperature range	flexing -10°C to +90°C static -40°C to +90°C
Nominal voltage	UL (AWM) AC 600 V
Test voltage core/core	3000 V
Breakdown voltage	6000 V
Minimum bending radius	flexing 7.5x Outer Ø static 4x Outer Ø

## ■ CABLE STRUCTURE

- Bare copper wire, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Conductor insulation: PVC acc. to UL Std. 758 (AWM) Style 11008, CSA Std. C22.2 No. 210
- Conductor identification acc. to DIN VDE 0293-334, black conductors with consecutive white numbers
- Protective conductor: starting with 3 conductors, G = with protective conductor GN-YE, in the outer layer, x = without protective conductor (OZ)
- Conductors stranded in layers with optimal lay lengths
- Outer jacket: PVC acc. to UL Std. 758 (AWM) Style 2587, CSA Std. C22.2 No. 210

- Jacket color: gray (RAL 7001)
- Length marking: in meters

## ■ PROPERTIES

- Largely resistant to: oil
- 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-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, UL VW-1, CSA FT1

## ■ APPLICATION

UL/CSA-approved, flexible control cable (up to 600 V) for machine, tool and plant construction. Suitable for medium mechanical stress with free movement, without tensile stress and without forced movements in dry, damp and wet rooms, however, not suitable for outdoor use.

## ■ NOTES

- The conductor is metrically (mm<sup>2</sup>) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. conductors x cross sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu weight kg/km	Weight kg/km, approx.
83090	2 x 0.5	20	5.0	10.8	49.0
83091	3 G 0.5	20	5.3	16.1	58.0
83092	4 G 0.5	20	5.7	21.5	69.0
83093	5 G 0.5	20	6.2	27.0	84.0
83094	7 G 0.5	20	6.7	37.6	123.0
83100	8 G 0.5	20	7.2	43.0	140.0
83101	9 G 0.5	20	7.8	48.4	177.0
83095	12 G 0.5	20	8.8	64.5	192.0
83096	18 G 0.5	20	10.5	97.0	256.0
83097	25 G 0.5	20	12.4	134.5	358.0
83098	34 G 0.5	20	14.3	182.8	487.0
83099	41 G 0.5	20	15.4	220.4	580.0
83080	2 x 1	18	5.8	19.2	53.0
83081	3 G 1	18	6.1	27.0	61.0
83565	3 x 1	18	6.1	27.0	61.0
83082	4 G 1	18	6.6	38.4	74.0
83083	5 G 1	18	7.3	48.0	90.0
83084	7 G 1	18	7.9	67.0	130.0
83102	8 G 1	18	8.8	76.8	144.0
83103	9 G 1	18	9.4	86.4	180.0
83085	12 G 1	18	10.6	115.2	198.0
83086	18 G 1	18	12.7	173.0	274.0
83087	25 G 1	18	15.0	240.0	384.0
83088	34 G 1	18	17.5	326.0	494.0
83089	41 G 1	18	18.8	394.0	508.0
83070	2 x 1.5	16	6.4	28.8	73.0
83071	3 G 1.5	16	6.8	44.0	94.0

Part no.	No. conductors x cross sec. mm <sup>2</sup>	AWG, approx.	Outer Ø mm, approx.	Cu weight kg/km	Weight kg/km, approx.
83072	4 G 1.5	16	7.4	58.0	117.0
83073	5 G 1.5	16	8.1	72.0	140.0
83074	7 G 1.5	16	9.0	101.0	186.0
83104	9 G 1.5	16	10.7	129.7	244.0
83075	12 G 1.5	16	11.8	173.0	319.0
83076	18 G 1.5	16	14.4	260.0	451.0
83077	25 G 1.5	16	17.0	360.0	625.0
83078	34 G 1.5	16	19.8	490.0	840.0
83079	41 G 1.5	16	21.5	590.0	1032.0
83060	2 x 2.5	14	7.6	48.0	115.0
83061	3 G 2.5	14	8.1	72.0	143.0
83062	4 G 2.5	14	9.0	96.0	185.0
83063	5 G 2.5	14	9.9	120.0	221.0
83064	7 G 2.5	14	11.0	168.0	293.0
83065	9 G 2.5	14	13.1	216.0	429.0
83066	12 G 2.5	14	14.7	288.0	563.0
83067	18 G 2.5	14	17.8	432.0	854.0
83068	19 G 2.5	14	17.8	456.0	914.0
83069	25 G 2.5	14	21.2	600.0	1188.0
83051	3 G 4	12	9.5	115.0	232.0
83052	4 G 4	12	10.6	154.0	298.0
83053	5 G 4	12	11.7	192.0	358.0
83054	7 G 4	12	13.0	269.0	460.0
83041	3 G 6	10	11.5	173.0	360.0
83042	4 G 6	10	12.8	231.0	402.0
83043	5 G 6	10	14.3	288.0	484.0
83044	7 G 6	10	15.8	403.0	630.0