

# TRAY CABLES



**NFPA 79  
for Industrial  
Machinery**

**TR 600 CY black Type TC, MTW and WTTTC**

**Shielded UV and oil resistant 90°C flexible tray cable and machine-tool cable**



Marking for TR 600 CY black 32231612:

SAB BRÖCKSKES · D-VIERSEN · TR 600 CY black 16 AWG/12c 32231612 TFFN (UL) Type TC-ER 90°C 600V, Oil Resistant I, Sunlight Resistant, Direct Burial, FT4 (UL) WTTTC 90°C 1000V (UL) MTW 16 AWG/12c 600V AWM Style 21179 600V c(UL) Type CIC SHIELDED 90°C dry 600V FT1 FT2 FT4 CE

TR 600 CY black is a multi-conductor, 600 V, 90°C, UL approved, UV and oil resistant flexible tray cable. Also machine-tool cable for use as specified in the National Electrical Code (NFPA 70) and in the National Fire Protection Association Electrical Standard for Industrial Machinery (NFPA 79). This cable can be used without conduit (exposed runs). The reduced outer diameter permits easy handling and installation in confined areas. Our specially designed PVC jacket passes the stringent requirements of the VDE test 0281 part 1 and HD 21.1 oil test providing the best oil resistance available for a PVC jacket. An overall tinned copper braid is recommended whenever electrical interference distorts signal transmission, or when EMI emissions need to be suppressed. TR 600 CY black tray cable is designed for use in all electrical equipment in dry, damp and wet conditions. Recommended applications are machine tools, control systems, assembly lines, CNC machining centers, grinding machines, bottling equipment, data processing equipment and connections between control panels and machines. TR 600 CY black is permitted to be used in hazardous (classified) locations class I, Division 2 per NEC Article 501.4 (B), UL Type TC is in acc. to UL standard 1277 and NEC Article 336 (392, 501). Wind turbine power and control cable is intended to be installed in cable trays or raceways within a wind turbine generator. MTW listed cables can be used in NFPA 79 Machine areas.

## Construction:

<b>Conductor:</b>	bare copper strands acc. to IEC 60228 class 5 and UL standard 758 table 5.1 + UL 1581 table 20.1
<b>Insulation:</b>	special formulated PVC/Nylon
<b>Color code:</b>	black conductors with consecutive white numbers; green-yellow earth wire from 3 conductors
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	special formulated PVC, color black
<b>Screen:</b>	tinned copper braiding
<b>Jacket material:</b>	special sunlight and oil resistant PVC
<b>Jacket color:</b>	black

## Outstanding features:

- Flexible cable for cable tray use even where sunlight resistance and open wiring is required
- NFPA 79 for Industrial Machinery
- New improved with WTTTC
- WTTTC: UL Subject 2277
- TC: UL Standard 1277

## Technical data:

<b>Voltage:</b>	<b>UL-AWM / (UL) / c(UL): 600 V</b> <b>(UL) WTTTC: 1000 V</b>	
<b>Testing voltage:</b>	4000 V	
<b>Min. bending radius</b>		
<i>fixed installation:</i>	5 x O.D.	
<i>free movement:</i>	10 x O.D.	
<b>Radiation resistance:</b>	8 x 10 <sup>7</sup> cJ/kg	
<b>Temperature:</b>	<b>UL-AWM:</b> up to +105°C	<b>(UL) / c(UL):</b> up to +90°C
<i>static:</i>	-25°C	
<b>Burning characteristics:</b>	(UL) FT4 and c(UL) FT1, FT2, FT4	
<b>Oil resistance I:</b>	yes	
<b>Sunlight resistance:</b>	yes	
<b>Exposed Runs:</b>	yes	
<b>Direct Burial:</b>	yes	
<b>Machinery Area:</b>	yes	
<b>Absence of harmful substances:</b>	acc. to RoHS-guideline 2002/95/EG as well as GefStoffV appendix IV-no. 24, see page N/25	

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
<b>➤ 18 AWG</b>				
32231803	3	0.358	9.1	79
32231804	4	0.382	9.7	92
32231805	5	0.409	10.4	107
32231807	7	0.449	11.4	136
32231809	9	0.559	14.2	188
32231812	12	0.591	15.0	226
32231816	16	0.677	17.2	298
32231818	18	0.705	17.9	325
32231819	19	0.705	17.9	331
32231825	25	0.815	20.7	411
32231827	27	0.815	20.7	425
32231837	37	0.937	23.8	573
32231850	50	1.098	27.9	758
<b>➤ 16 AWG</b>				
32231603	3	0.382	9.7	95
32231604	4	0.409	10.4	111
32231605	5	0.449	11.4	138
32231607	7	0.484	12.3	167
32231608	8	0.583	14.8	222
32231609	9	0.614	15.6	247
32231612	12	0.673	17.1	302
32231616	16	0.732	18.6	364

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
<b>➤ 16 AWG</b>				
32231618	18	0.764	19.4	400
32231619	19	0.764	19.4	409
32231625	25	0.929	23.6	546
32231627	27	0.929	23.6	570
32231637	37	1.047	26.6	748
32231641	41	1.114	28.3	816
32231650	50	1.197	30.4	946
32231661	61	1.264	32.1	1100
<b>➤ 14 AWG</b>				
32231403	3	0.417	10.6	121
32231404	4	0.457	11.6	154
32231405	5	0.492	12.5	179
32231407	7	0.559	14.2	234
32231409	9	0.709	18.0	339
32231412	12	0.736	18.7	389
32231418	18	0.886	22.5	566
32231425	25	1.055	26.8	760
<b>➤ 12 AWG</b>				
32231203	3	0.476	12.1	172
32231204	4	0.512	13.0	206

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
<b>➤ 12 AWG</b>				
32231205	5	0.591	15.0	269
32231207	7	0.669	17.0	352
<b>➤ 10 AWG</b>				
32231003	3	0.587	14.9	262
32231004	4	0.661	16.8	333
32231005	5	0.717	18.2	393
32231007	7	0.772	19.6	491
<b>➤ 8 AWG</b>				
32230804	4	0.815	20.7	498
32230805	5	0.929	23.6	627
<b>➤ 6 AWG</b>				
32230604	4	1.028	26.1	777
32230605	5	1.118	28.4	917
<b>➤ 4 AWG</b>				
32230404	4	1.209	30.7	1111
32230405	5	1.323	33.6	1327
<b>➤ 2 AWG</b>				
32230204	4	1.370	34.8	1519
32230205	5	1.504	38.2	1823

Other dimensions and colors are possible on request.

E-mail: [info@sabcable.com](mailto:info@sabcable.com)



Web site: [www.sabcable.com](http://www.sabcable.com)