

TCX[®] (C)331 150/250 (300) V

APPLICATION

TCX[®] (C) 331 type is used on board of ships in all locations for installations complying with IEC standards 60092-352. For open deck installation, cables have to be covered against UV rays. TCX[®] (C) 331 type meets IEC 60331 fire resistant performances, withstands IEC 60332-3-22 fire test on bunched cables and performs to the SOLAS requirements. All materials used to produce this cable are halogen free. This design ensures that non corrosive and low toxic gases are emitted in case of fire.

Max conductor temperature: 90°C

DESIGN

1. Conductor

Stranded bare copper class 2

2. Insulation

Mica tape + XLPE

3. Inner covering

Polyester tape or polyolefin

4. Armouring

Bare copper braid with bare copper drain wire

5. Outer sheath

Polyolefin SHF1

Colour: orange

MARKING

NEXANS 448 TCX (C) 331 150/250V «n» x 2 «or» 3 x «s» mm² 90°C IEC 60332-3-22 IEC 60331 «WW/YY» *CE * + Metric Marking

Note: We use a quad to substitute a 2-pair.



Fire resistant
IEC 60331-21
IEC 60331-1 or 2



Fire retardant
IEC 60332-3-22



Flame retardant
IEC 60332-1



Halogen-free
IEC 60754-1
IEC 60684-2



Low smoke
IEC 61034



No toxicity



No corrosivity
IEC 60754-2

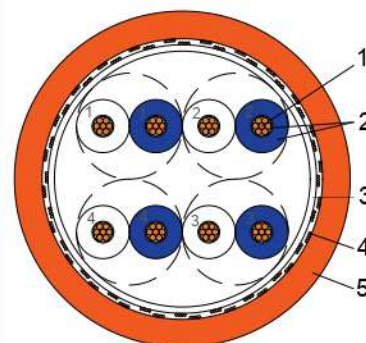


-30 +80°C



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INSTRUMENTATION CABLE

Note: Cable drawing is only for reference.

CORE IDENTIFICATION

1P&1T

Core 1: white
Core 2: blue
Core 3: red

2P&2T AND ABOVE

Core 1: white + printed number
Core 2: blue + printed number
Core 3: red + printed number

STANDARDS

IEC 60228
IEC 60092-350
IEC 60092-376
IEC 60092-360
IEC 60332-3-22
IEC 60331
IEC 60754-1/60754-2
IEC 60684-2
IEC 61034

TCX® (C)331 150/250 (300)V Polyester tape lapped inner covering

Cables (mm ²)	Outer diameter			Weight approx. (kg/km)
	Min.(mm)	Nom.(mm)	Max.(mm)	
1 x 2 x 0.75	8.9	9.7	10.5	119
2 x 2 x 0.75 *	9.8	10.7	11.6	160
4 x 2 x 0.75	15.2	16.3	17.4	313
7 x 2 x 0.75	18.1	19.4	20.7	442
10 x 2 x 0.75	23.1	24.7	26.3	645
14 x 2 x 0.75	25.2	26.9	28.6	768
19 x 2 x 0.75	28.1	30.0	31.9	958
24 x 2 x 0.75	33.1	35.2	37.4	1232
27 x 2 x 0.75	33.8	36.0	38.2	1296
37 x 2 x 0.75	38.5	41.0	43.5	1767
1 x 2 x 1.0	9.1	9.9	10.7	129
2 x 2 x 1.0 *	10.0	10.9	11.8	176
4 x 2 x 1.0	15.5	16.7	17.9	352
7 x 2 x 1.0	18.5	19.8	21.1	503
10 x 2 x 1.0	23.7	25.3	26.9	732
14 x 2 x 1.0	25.9	27.6	29.3	882
19 x 2 x 1.0	28.8	30.7	32.6	1108
24 x 2 x 1.0	33.9	36.1	38.3	1381
27 x 2 x 1.0	34.7	36.9	39.1	1505
37 x 2 x 1.0	39.5	42.0	44.5	1992
1 x 2 x 1.5	9.6	10.4	11.2	146
2 x 2 x 1.5 *	11.2	12.1	13.0	211
4 x 2 x 1.5	17.1	18.3	19.5	421
7 x 2 x 1.5	21.6	23.1	24.6	612
10 x 2 x 1.5	24.3	26.0	27.7	899
14 x 2 x 1.5	29.4	31.3	33.2	1086
19 x 2 x 1.5	34.2	36.4	38.6	1374
24 x 2 x 1.5	36.5	38.8	41.1	1816
27 x 2 x 1.5	40.2	42.7	45.2	1997
37 x 2 x 1.5	45.3	48.1	50.9	2503
1 x 2 x 2.5	10.4	11.3	12.2	177
2 x 2 x 2.5 *	11.8	12.8	13.8	264
4 x 2 x 2.5	18.3	19.6	20.9	528
7 x 2 x 2.5	22.1	23.6	25.1	799
10 x 2 x 2.5	28.3	30.2	32.1	1162
14 x 2 x 2.5	31.0	33.0	35.0	1438
19 x 2 x 2.5	34.6	36.8	39.0	1839
24 x 2 x 2.5	41.3	43.9	46.5	2415
27 x 2 x 2.5	42.3	44.9	47.5	2659
37 x 2 x 2.5	47.6	50.5	53.4	3362

*: 2 pairs are assembled as a quad

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TCX® (C)331 150/250 (300)V Polyester tape lapped inner covering

Cables (mm ²)	Outer diameter			Weight approx. (kg/km)
	Min.(mm)	Nom.(mm)	Max.(mm)	
1 x 3 x 0.75	9.3	10.1	10.9	138
2 x 3 x 0.75	13.4	14.4	15.4	234
4 x 3 x 0.75	16.0	17.2	18.4	377
7 x 3 x 0.75	19.3	20.7	22.1	558
10 x 3 x 0.75	24.5	26.2	27.9	797
14 x 3 x 0.75	26.7	28.5	30.3	1001
1 x 3 x 1.0	9.5	10.3	11.1	151
2 x 3 x 1.0	14.3	15.4	16.5	300
4 x 3 x 1.0	16.6	17.8	19.0	439
7 x 3 x 1.0	19.8	21.2	22.6	643
10 x 3 x 1.0	25.3	27.0	28.7	944
14 x 3 x 1.0	27.6	29.4	31.2	1148
1 x 3 x 1.5	10.0	10.9	11.8	174
2 x 3 x 1.5	15.3	16.4	17.5	348
4 x 3 x 1.5	17.7	19.0	20.3	523
7 x 3 x 1.5	21.1	22.6	24.1	783
10 x 3 x 1.5	27.3	29.1	30.9	1158
14 x 3 x 1.5	29.7	31.7	33.7	1435
1 x 3 x 2.5	11.1	12.0	12.9	222
2 x 3 x 2.5	16.8	18.0	19.2	441
4 x 3 x 2.5	19.6	21.0	22.4	684
7 x 3 x 2.5	23.5	25.1	26.7	1044
10 x 3 x 2.5	30.3	32.3	34.3	1529
14 x 3 x 2.5	33.1	35.2	37.3	1937

Products on request

TCX® (C)331 150/250 (300)V Extruded polyolefin inner covering

Cables (mm ²)	Diameter over inner covering	Outer diameter			Weight approx. (kg/km)
	Nom.(mm)	Min.(mm)	Nom.(mm)	Max.(mm)	
1 x 2 x 0.75	8.0	10.6	11.5	12.4	231
2 x 2 x 0.75 *	8.9	11.6	12.6	13.6	294
4 x 2 x 0.75	13.7	16.9	18.2	19.5	508
7 x 2 x 0.75	16.6	19.9	21.3	22.7	675
10 x 2 x 0.75	21.5	24.9	26.6	28.3	942
14 x 2 x 0.75	23.5	26.9	28.7	30.5	1,076
19 x 2 x 0.75	26.4	29.7	31.7	33.7	1,302
24 x 2 x 0.75	31.6	35.0	37.3	39.6	1,720
27 x 2 x 0.75	32.4	36.5	38.8	41.2	1,910
37 x 2 x 0.75	36.5	40.5	43.1	45.7	2,334
1 x 2 x 1.0	8.1	10.9	11.8	12.7	249
2 x 2 x 1.0 *	9.1	11.8	12.8	13.8	312
4 x 2 x 1.0	14.1	17.3	18.6	19.9	558
7 x 2 x 1.0	17.0	20.3	21.7	23.1	748
10 x 2 x 1.0	22.1	25.5	27.2	28.9	1,044
14 x 2 x 1.0	24.2	27.6	29.5	31.4	1,222
19 x 2 x 1.0	27.1	30.7	32.7	34.7	1,488
24 x 2 x 1.0	32.5	36.5	38.9	41.3	1,996
27 x 2 x 1.0	33.3	37.3	39.7	42.1	2,151
37 x 2 x 1.0	37.5	41.7	44.3	46.9	2,596
1 x 2 x 1.5	8.7	11.5	12.4	13.3	273
2 x 2 x 1.5 *	9.8	12.5	13.5	14.5	350
4 x 2 x 1.5	15.1	18.4	19.7	21.0	631
7 x 2 x 1.5	18.3	21.8	23.3	24.8	874
10 x 2 x 1.5	23.8	27.4	29.2	31.0	1,234
14 x 2 x 1.5	26.1	29.7	31.7	33.7	1,451
19 x 2 x 1.5	29.7	33.3	35.5	37.7	1,862
24 x 2 x 1.5	35.1	39.2	41.7	44.2	2,380
27 x 2 x 1.5	36.0	40.3	42.8	45.4	2,592
37 x 2 x 1.5	41.0	45.4	48.2	51.0	3,259
1 x 2 x 2.5	9.5	12.2	13.2	14.2	314
2 x 2 x 2.5 *	10.8	14.0	15.1	16.2	458
4 x 2 x 2.5	16.8	20.1	21.5	22.9	769
7 x 2 x 2.5	20.4	23.7	25.3	26.9	1,074
10 x 2 x 2.5	26.6	30.1	32.1	34.1	1,532
14 x 2 x 2.5	29.5	33.2	35.3	37.4	1,920
19 x 2 x 2.5	33.2	37.4	39.8	42.2	2,497
24 x 2 x 2.5	39.7	44.0	46.7	49.4	3,143
27 x 2 x 2.5	40.6	44.8	47.6	50.4	3,423
37 x 2 x 2.5	45.9	50.2	53.3	56.4	4,197

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TCX® (C)331 150/250 (300)V Extruded polyolefin inner covering

Cables (mm ²)	Diameter over inner covering	Outer diameter			Weight approx. (kg/km)
	Nom.(mm)	Min.(mm)	Nom.(mm)	Max.(mm)	
1 x 3 x 0.75	8.4	11.2	12.1	13.0	262
2 x 3 x 0.75	12.5	15.6	16.8	18.0	453
4 x 3 x 0.75	14.6	17.9	19.2	20.5	585
7 x 3 x 0.75	17.7	21.0	22.5	24.0	795
10 x 3 x 0.75	22.9	26.3	28.1	29.9	1,113
14 x 3 x 0.75	25.0	28.5	30.4	32.3	1,356
1 x 3 x 1.0	8.6	11.4	12.3	13.2	277
2 x 3 x 1.0	12.8	16.1	17.3	18.5	490
4 x 3 x 1.0	15.0	18.2	19.5	20.8	648
7 x 3 x 1.0	18.2	21.6	23.1	24.6	905
10 x 3 x 1.0	23.6	27.1	28.9	30.7	1,278
14 x 3 x 1.0	25.7	29.2	31.1	33.1	1,496
1 x 3 x 1.5	9.2	11.9	12.9	13.9	307
2 x 3 x 1.5	13.7	17.0	18.3	19.6	549
4 x 3 x 1.5	16.1	19.5	20.9	22.3	757
7 x 3 x 1.5	19.6	23.0	24.6	26.2	1,062
10 x 3 x 1.5	25.5	28.9	30.8	32.7	1,501
14 x 3 x 1.5	27.9	31.3	33.4	35.5	1,809
1 x 3 x 2.5	10.1	12.8	13.8	14.8	360
2 x 3 x 2.5	15.2	18.7	20.0	21.3	661
4 x 3 x 2.5	17.9	21.4	22.9	24.4	940
7 x 3 x 2.5	21.8	25.3	27.0	28.7	1,351
10 x 3 x 2.5	28.9	32.5	34.6	36.7	2,003
14 x 3 x 2.5	31.5	35.6	37.9	40.2	2,549

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