

Appendix Q. Tables of Color

Q.1 Colors of conductors according to their function

Table Q.1. Colors of conductors according to their function

Function	International codification	North American codification
N-Neutral (Neutral)	Light blue	White
L-Live (Phase)	Brown	Black
E-Earth or Ground	Yellow/Green	Green or Yellow /Green

Q.2 Colors of conductors according to DIN 47100

Table Q.2a. Colors of conductors according to DIN 47100 – Multicore cables

Conductor ID	Color
1	White
2	Brown
3	Green
4	Yellow
5	Gray
6	Pink
7	Blue
8	Red
9	Black
10	Violet
11	Gray/Pink
12	Red/Blue
13	White/Green
14	Brown/Green
15	White/Yellow
16	Yellow/Brown
17	White/Gray
18	Gray/Brown
19	White/Pink
20	Pink/Brown
21	White/Blue
22	Brown/Blue
23	White/Red
24	Brown/Red
25	White/Black
26	Brown/Black
27	Gray/Green
28	Yellow/Gray
29	Pink/Green
30	Yellow/Pink
31	Green/Blue
32	Yellow/Blue
33	Green/Red
34	Yellow/Red
35	Green/Black
36	Yellow/Black
37	Gray/Blue
38	Pink/Blue
39	Gray/Red
40	Pink/Red
41	Gray/Black
42	Pink/Black
43	Blue/Black
44	Red/Black

Table Q.2b. Colors of conductors according to DIN 47100 – Muticore cables in pairs

Pairs ID	Conductor 1 color	Conductor 2 color
1	White	Brown
2	Green	Yellow
3	Gray	Pink
4	Blue	Red
5	Black	Violet
6	Gray/Pink	Red/Blue
7	White/Green	Brown/Green
8	White/Yellow	Yellow/Brown
9	White/Gray	Gray/Brown
10	White/Pink	Pink/Brown
11	White/Blue	Brown/Blue
12	White/Red	Brown/Red
13	White/Black	Brown/Black
14	Gray/Green	Yellow/Gray
15	Pink/Green	Yellow/Pink
16	Green/Blue	Yellow/Blue
17	Green/Red	Yellow/Red
18	Green/Black	Yellow/Black
19	Gray/Blue	Pink/Blue
20	Gray/Red	Pink/Red
21	Gray/Black	Pink/Black
22	Blue/Black	Red/Black

Q.3 Colors of conductors according to CEI UNEL 00722

Table Q.3a. Colors of conductors according to CEI UNEL 00722:2002 – Multicore cables without Yellow/Green conductor

Num. of conductors	Conductor 1	Conductor 2	Conductor 3	Conductor 4	Conductor 5	Conductor 6÷n
2	Blue	Brown				
3	Brown	Black	Gray			
4	Blue	Brown	Black	Gray		
5	Blue	Brown	Black	Gray	Black	
>5	Black numbered					

Table Q.3b. Colors of conductors according to CEI UNEL 00722:2002 – Multicore cables with Yellow/Green conductor

Num. of conductors	Conductor 1	Conductor 2	Conductor 3	Conductor 4	Conductor 5	Conductor 6÷n
3	Yellow/Green	Blue	Brown			
4	Yellow/Green	Brown	Black	Gray		
5	Yellow/Green	Blue	Brown	Black	Gray	
>5	Black numbered + Yellow/Green					

Q.4 Colors of conductors according to UL508a

Table Q.4a. Colors of conductors according to UL 508a - Rev. 2007-2018, requirements for all kind of control panels (17.3 Identification of Grounding and Grounded Circuit Conductors and Terminals)

Color	Function
Green (or Yellow/Green)	Ground conductor

Table Q.4b. Colors of conductors according to UL 508a - Rev. 2007-2018, requirements for power circuit conductors of control panels (66.5 Internal wiring - power circuits)

Color	Function
Black	Ungrounded power circuit conductors
White or gray or three continuous white stripes on other than green, blue, orange or yellow	Grounded alternate current power circuit conductors

Table Q.4c. Colors of conductors according to UL 508a - Rev. 2007-2018, requirements for control circuit conductors of control panels (66.9 Internal wiring of control circuit)

Color	Function
Black	All ungrounded control circuit conductors operating at the supply voltage
Red	Ungrounded alternate current control circuits operating at a voltage less than the supply voltage
Blue	Ungrounded direct current control circuit conductor
Yellow or Orange	Ungrounded control circuits or other wiring, such as for cabinet lighting, that remain energized when the main disconnect is in the "off" position.
White or gray or three white stripes on other than green, blue, orange or yellow	Grounded alternate current control circuit conductor
White with blue stripe	Grounded direct current control circuit conductor

Q.5 Colors of conductors according to NFPA 79

Table Q.5. Colors of conductors according to NFPA 79 - Ed. 2007-2018 - 13.2 Identification of Conductors

Color	Function
Black	Ungrounded alternate and direct current power conductors
Red	Ungrounded alternate current control circuit conductors
Blue	Ungrounded direct current control circuit conductors
Orange	Ungrounded conductors that remain energized when the main supply circuit disconnecting means is in the "off" position
Green (or Yellow/Green)	Grounded conductors
White with orange stripes	Grounded alternate current circuit conductors that remain energized when the main supply circuit disconnecting means is in the "off" position
White or gray or three white stripes on other than green, blue or orange	Grounded alternate current control circuit conductor
White with blue stripe	Grounded direct current control circuit conductor

Q.6 Colors of conductors according to EN 60204-1

Table Q.6. Colors of conductors according to IEC 60204-1:2016

Color	Function
Black	Ungrounded alternate and direct current power conductors
Red	Ungrounded alternate current control circuit conductors
Blue	Ungrounded direct current control circuit conductors
Yellow/Green	Grounded conductors

Q.7 Colors of conductors according to ICEA (Insulated Cable Engineers Association)

Table Q.7a. Colors of conductors according to ICEA (Insulated Cable Engineers Association) – Method 1, table E-1

Conductor ID	Color	Conductor ID	Color	Conductor ID	Color	Conductor ID	Color	Conductor ID	Color
1	Black	11	Blue/Black	21	Orange/Green	31	Green/Black/Orange	41	Green/White/Blue
2	White	12	Black/White	22	Black/White/Red	32	Orange/Black/Green	42	Orange/Red/Green
3	Red	13	Red/White	23	White/Black/Red	33	Blue/White/Orange	43	Blue/Red/Green
4	Green	14	Green/White	24	Red/Black/White	34	Black/White/Orange	44	Black/White/Blue
5	Orange	15	Blue/White	25	Green/Black/White	35	White/Red/Orange	45	White/Black/Blue
6	Blue	16	Black/Red	26	Orange/Black/White	36	Orange/White/Blue	46	Red/White/Blue
7	White/Black	17	White/Red	27	Blue/Black/White	37	White/Red/Blue	47	Green/Orange/Red
8	Red/Black	18	Orange/Red	28	Black/Red/Green	38	Black/White/Green	48	Orange/Red/Blue
9	Green/Black	19	Blue/Red	29	White/Red/Green	39	White/Black/Green	49	Blue/Orange/Red
10	Orange/Black	20	Red/Green	30	Red/Black/Green	40	Red/White/Green	50	Black/Orange/Red

Table Q.7b. Colors of conductors according to ICEA (Insulated Cable Engineers Association) – Method 1, table E-2

Conductor ID	Color	Wire	Color
1	Black	17	Black/Blue
2	Red	18	Red/Blue
3	Blue	19	Orange/Blue
4	Orange	20	Yellow/Blue
5	Yellow	21	Brown/Blue
6	Brown	22	Black/Orange
7	Red/Black	23	Red/Orange
8	Blue/Black	24	Blue/Orange
9	Orange/Black	25	Yellow/Orange
10	Yellow/Black	26	Brown/Orange
11	Brown/Red	27	Black/Yellow
12	Black/Red	28	Red/Yellow
13	Blue/Red	29	Blue/Yellow
14	Orange/Red	30	Orange/Yellow
15	Yellow/Red	31	Brown/Yellow
16	Brown/Red	32	Black/Brown

Q.8 Colors of conductors according to internal specification Type 1-P

Table Q.8. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	White	Blue
2	White	Orange
3	White	Green
4	White	Black
5	White	Red
6	White	Gray
7	White	Brown
8	White	Yellow

Q.9 Colors of conductors according to internal specification Type 1-C

Table Q.9. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Black	Red
2	Black	White
3	Black	Green
4	Black	Blue
5	Black	Yellow
6	Black	Brown

Q.10 Colors of conductors according to internal specification Type 1-T

Table Q.10. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Yellow	Blue
2	Red/White	Black/White
3	Red	Black
4	White	Blue
5	Red	White
6	Red/White	White

Q.11 Colors of conductors according to internal specification Type 2-C

Table Q.11a. Colors of pairs 0,35 mm²

Pair ID	Conductor 1	Conductor 2
1	Yellow	Pink
2	White	Blue
3	Violet	Brown

Table Q.11b. Colors of pairs 0,5 mm²

Pair ID	Conductor 1	Conductor 2
1	Red	Black

Q.12 Colors of conductors according to internal specification Type 3-P

Table Q.12a. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Green	White/Green
2	Blue	White/Blue
3	Orange	White/Orange

Table Q.12b. Colors of conductors

Conductor ID	Color
1	Red
2	Black
3	Yellow/Green

Q.13 Colors of conductors according to internal specification Type 4-C

Table Q.13a. Colors of pairs 0,25 mm²

Pair ID	Conductor 1	Conductor 2
1	Brown	Green
2	Gray	Pink
3	Blue	Violet
4	Red	Black

Table Q.13b. Colors of pairs 1 mm²

Pair ID	Conductor 1	Conductor 2
1	White	Brown

Q.14 Colors of conductors according to internal specification Type 5-P

Table Q.14a. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Red	Orange
2	Yellow	Green
3	Blue	Violet
4	Brown	Black

Table Q.14b. Colors of conductors

Pair ID	Color
1	White/Blue
2	White/Red
3	White/Black
4	White/Yellow

Q.15 Colors of conductors according to internal specification Type 6-T

Table Q.15a. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	White	Yellow
2	White	Blue
3	White	Rosso
4	White	Green

Q.16 Colors of conductors according to internal specification Type 7-P

Table Q.16a. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Blue	Black

Table Q.16b. Colors of conductors

Conductor ID	Color
1	Black
2	Violet
3	Pink
4	Brown
5	Green
6	Yellow
7	White
8	Blue

Q.17 Colors of conductors according to internal specification Type 8-C

Table Q.17a. Colors of pairs 0,14 mm²

Pair ID	Conductor 1	Conductor 2
1	Green	Yellow
2	Black	Brown
3	Gray	Pink

Table Q.17b. Colors of pairs 0,5 mm²

Pair ID	Conductor 1	Conductor 2
1	White	Brown

Q.18 Colors of conductors according to internal specification Type 9-P

Table Q.18a. Colors of pairs 0,14 mm²

Pair ID	Conductor 1	Conductor 2
1	Yellow	Green
2	Black	Brown
3	Red	Orange

Table Q.18b. Colors of pairs 0,5 mm²

Pair ID	Conductor 1	Conductor 2
1	Brown/Blue	Brown/Red

Table Q.18c. Colors of pairs 0,14 mm²

Pair ID	Conductor 1	Conductor 2
1	Gray	White/Yellow
2	Blue	White/Black

Table Q.18d. Colors of pairs 0,25 mm²

Pair ID	Conductor 1	Conductor 2
1	Brown/Yellow	Green/Black
2	Brown/Gray	Green/Red

Q.19 Colors of conductors according to internal specification Type 10-P

Table Q.19. Colors of pairs

Pair ID	Conductor 1	Conductor 2
1	Black	Green
2	Red	Blue

Q.20 Colors of conductors according to HD 308 S2

Table Q.20a. Color of conductors with yellow/green conductor according to HD 308 S2

Num. of conductors	Conductor 1	Conductor 2	Conductor 3	Conductor 4	Conductor 5
3	Yellow/Green	Blue	Brown	-	-
4	Yellow/Green	Brown	Black	Gray	-
4*	Yellow/Green	Blue	Brown	Black	-
5	Yellow/Green	Blue	Brown	Black	Gray

* For certain applications.

Table Q.20b. Color of conductors without yellow/green conductor according to HD 308 S2

Num. of conductors	Conductor 1	Conductor 2	Conductor 3	Conductor 4	Conductor 5
2	Blue	Brown	-	-	-
3	Brown	Black	Gray	-	-
3*	Blue	Brown	Black	-	-
4	Blue	Brown	Black	Gray	-
5	Blue	Brown	Black	Gray	Black

* For certain applications.