

# DATA CABLES ELECTRICAL CHARACTERISTICS/STRANDING

## Data cables – Electrical characteristics

Conductor size	0.14 mm <sup>2</sup> 26 AWG		0.25 mm <sup>2</sup> 24 AWG		0.34 mm <sup>2</sup> 22 AWG		0.50 mm <sup>2</sup> 20 AWG		0.75 mm <sup>2</sup> 19 AWG		1.00 mm <sup>2</sup> 18 AWG		1.50 mm <sup>2</sup> 16 AWG	
	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km
max. conductor resistance at 20 °C acc. to DIN VDE 0812	45.1	148.0	24.4	79.9	17.7	58.0	11.86	38.9	7.92	26.0	5.94	19.5	4.05	13.3
Capacitance conductor/conductor for...														
...PVC	36.5	120	36.5	120	39.5	130	42.5	140	45.5	150	52.0	170	58.0	190
...TPE-E	18.5	100	30.5	100	36.5	120	36.5	120	45.5	150	45.5	150	52.0	170
...PE	18.5	60	18.5	60	24.5	80	27.4	90	27.4	90	30.5	100	33.6	110
... 336	21.5	70	21.5	70	21.5	70	24.5	80	27.4	90	30.5	100	33.6	110

## Screened data cables – Electrical characteristics

Conductor size	0.14 mm <sup>2</sup> 26 AWG		0.25 mm <sup>2</sup> 24 AWG		0.34 mm <sup>2</sup> 22 AWG		0.50 mm <sup>2</sup> 20 AWG		0.75 mm <sup>2</sup> 19 AWG		1.00 mm <sup>2</sup> 18 AWG		1.50 mm <sup>2</sup> 16 AWG	
	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km	Ω/1000 ft	Ω/km
max. conductor resistance at 20 °C acc. to DIN VDE 0812	45.1	148.0	24.4	79.9	17.7	58.0	11.86	38.9	7.92	26.0	5.94	19.5	4.05	13.3
Capacitance conductor/conductor for...														
...PVC	15.0	50	15.0	50	15.3	55	15.3	55	18.5	60	18.5	60	18.5	60
...TPE-E	18.5	40	18.5	50	15.0	50	15.0	50	18.5	60	21.5	70	21.5	70
...PE	6.5	20	6.5	20	6.5	20	6.5	20	6.5	20	6.5	20	6.5	20
... 336	9.0	30	9.0	30	9.0	30	9.0	30	9.0	30	9.0	30	10.7	35

The mentioned values are approximate values. Capacitance are dependent on cable constructions, shielding and wall thickness of the insulation and therefore can be different from above mentioned data.

## Data cables – construction of strands

For example, item series 0305, 0315, 0345, 5305, 5315, 5345, 6305, 6315, 6345, ...

AWG	nominal section	no. of strands x strand size
26	0.14 mm <sup>2</sup>	≈ 18 x 0.10 mm ø
24	0.25 mm <sup>2</sup>	≈ 14 x 0.15 mm ø
22	0.34 mm <sup>2</sup>	≈ 7 x 0.25 mm ø
20	0.50 mm <sup>2</sup>	≈ 17 x 0.20 mm ø
19	0.75 mm <sup>2</sup>	≈ 23 x 0.20 mm ø
18	1.00 mm <sup>2</sup>	≈ 30 x 0.20 mm ø
16	1.50 mm <sup>2</sup>	≈ 28 x 0.25 mm ø

ø = abbreviation for strand diameter