

Technical Data

Wirefill Capacity

Duct Size		O.D. mm	Number of Wires (pcs)																		
			1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90	100
0.75mm ²	22-20AWG	2.7	7	15	22	29	36	44	51	58	66	73	146	219	292	365	437	510	583	656	729
1.25mm ²	22-16AWG	3.0	9	18	27	36	45	54	63	72	81	90	180	270	360	450	540	630	720	810	900
2.0mm ²	16-14AWG	3.4	12	23	35	46	58	69	81	92	104	116	231	347	462	578	694	809	925	1040	1156
3.5mm ²	12AWG	4.0	16	32	48	64	80	96	112	128	144	160	320	480	640	800	960	1120	1280	1440	1600
5.5mm ²	12-10AWG	5.0	25	50	75	100	125	150	175	200	225	250	500	750	1000	1250	1500	1750	2000	2250	2500
8.0mm ²	8AWG	6.0	36	72	108	144	180	216	252	288	324	360	720	1080	1440	1800	2160	2520	2880	3240	3600
14.0mm ²	6AWG	7.6	58	116	173	231	289	347	404	462	520	578	1155	1733	2310	2888	3466	4043	4621	5198	5776
22.0mm ²	4AWG	9.2	85	169	254	339	423	508	592	677	762	846	1693	2539	3386	4232	5078	5925	6771	7618	8464
LAN cable	Cat. 5e	4.6	21	42	63	85	106	127	148	169	190	212	423	635	846	1058	1270	1481	1693	1904	2116
	Cat. 6	6.3	40	79	119	159	198	238	278	318	357	397	794	1191	1588	1985	2381	2778	3175	3572	3969

Above **wire area** data is calculated by the formula = (Wire O.D.)²
Please calculate the **wire area** based on the actual wires used.

[Slotted Duct]

$$\text{Wire Fill Capacity} = (W \times H) \times 60\%$$

$$\text{Wire Fill Capacity} = \frac{(W \times H) \times 60\%}{(\text{Wire O.D.})^2}$$

[Solid Duct]

$$\text{Wire Fill Capacity} = (W \times H) \times 50\%$$

$$\text{Wire Fill Capacity} = \frac{(W \times H) \times 50\%}{(\text{Wire O.D.})^2}$$

Instruction to choose suitable duct size :

e.g. 12 (8.0mm²) + 34 (5.0mm²)

Use above chart to get wire area of each e.g. (360 + 72 + 750 + 100)

Add to calculate the total wire area e.g. **1282 mm²**

The duct you choose its fill capacity should be equal or larger than your necessary wire area

a.If choose 45x45 Solid wiring duct : 45 x 45 x 50% = 1012 mm² ≤ 1282 mm² → (NO) Cannot Fit

b.If choose 45x65 Solid wiring duct : 45 x 65 x 50% = 1462 mm² ≥ 1282 mm² → (YES) Can Fit

