

# Sound/Security Cable

## What Really Matters in Selecting the RIGHT Sound/Security Cable

### Plenum vs. Riser vs. Non-Plenum

**PLENUM RATED:** Plenum spaces are defined as any space used as return passage for environmental air (such as ducts). NEC Code states that all cabling not in conduit, installed in plenum spaces, shall be listed as having adequate fire-resistant and low smoke producing characteristics. Beware of imitations that are "plenum-listed" or "plenum-approved". All listed and classified cables must be identified every 24 inches with printing on the jacket or internal marker tape.

**RISER RATED:** "Non-Plenum" does not necessarily mean "Riser". Some companies offer CM rated (general purpose) cable that is NOT riser rated, for a lower price. Note that a CMR product can be used where a CM product would be acceptable; but the reverse does not hold true (see NEC Article 800 chart to the right). By selling the riser-rated product, you reduce the number of sku's you and your customers have to handle.

### Shielded vs. Unshielded

**SHIELDED:** Offers excellent protection against interference (EMI & RFI).

- **EMI (Electro Magnetic Interference):** Electrostatic sparks or spiking from motors, neon or fluorescent lighting ballasts, or any other sources that cause noise. Shielded cables should be considered for installations in areas near dimmer panels and light switches, in parallel runs, near neon or fluorescent lights and near powercables.

- **RFI (Radio Frequency Interference):** Some frequencies used for radio communications have a tendency to become coupled onto conductors to produce RFI. Depending on the level of interference, shielded cables offer excellent protection against this common noise.

**UNSHIELDED:** Cost effective in areas where interference is not a concern.

### Cabled (Twisted) vs. Straight-Lay (Zip or Parallel)

**CABLED:** Reduces crosstalk interference from other signals (inside or outside the cable). Standard straight-lay cables do not offer enough protection, but twisted cables can minimize this type of noise especially over longer runs.

**STRAIGHT-LAY:** Cost effective for areas where interference is not a concern.

### Stranded vs. Solid

**STRANDED:** The industry standard for most electronic cables. Stranded conductors are more flexible than solid and are easier to pull. Stranded conductors reduce potential conductor breakage when repeatedly flexed, and the increased surface area may be a factor in overall frequency response.

**SOLID:** Occasionally requested because it's less-expensive or the application requires solder of connectors. Solid conductors are easier to terminate.

### AWG (Gauge)

**22 thru 12 gauge is most common.** Larger size for longer runs...Power loss should be calculated to determine the appropriate Gauge size.

### Number of Conductors

**2 & 4 conductor are most popular.** 6, 8, 10 or higher conductor count may be required for complex systems or multiple zones.

### Is your competition beating you on price?

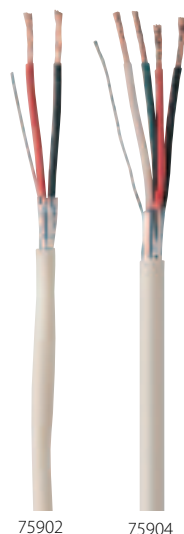
- CMR vs CM / "Plenum" vs "Non-Plenum" (general purpose) - Don't assume riser when your customer says non-plenum.
- Cabled (Twisted) vs Straight-Lay (Zip or Parallel) - Different constructions make a big difference in price.
- High-Grade Strand-count - Be sure you compare apples to apples.





## Plenum Unshielded Electronic Wire

Part Number	Description	AWG	Cond	UL Type	Weight (Nom.)	Outside Dia. (Nom.)	Packaging	Jacket Color
72302	22/2 stranded BC (7/30)	22	2	CMP CL3P	8 lbs	0.109"	1,000' Box (46)	Natural (23)
72304	22/4 stranded BC (7/30)	22	4	CMP CL3P	13 lbs	0.127"	1,000' Box (46)	Natural (23)
72306	22/6 stranded BC (7/30)	22	6	CMP CL3P	20 lbs	0.150"	1,000' Box (46)	Natural (23)
72308	22/8 stranded BC (7/30)	22	8	CMP CL3P	25 lbs	0.163"	1,000' Reel (06)	Natural (23)
72312	22/12 stranded BC (7/30)	22	12	CMP CL3P	38 lbs	0.203"	1,000' Reel (06)	Natural (23)
71902	18/2 stranded BC (70.0152)	18	2	CMP CL3P	16 lbs	0.142"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
71903	18/3 stranded BC (70.0152)	18	3	CMP CL3P	22 lbs	0.151"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
71904	18/4 stranded BC (70.0152)	18	4	CMP CL3P	28 lbs	0.166"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
71906	18/6 stranded BC (70.0152)	18	6	CMP CL3P	43 lbs	0.205"	1,000' Reel (06)	Natural (23)
71908	18/8 stranded BC (70.0152)	18	8	CMP CL3P	56 lbs	0.223"	1,000' Reel (06)	Natural (23)
71912	18/12 stranded BC (70.0152)	18	12	CMP CL3P	83 lbs	0.271"	1,000' Reel (06)	Natural (23)
71702	16/2 stranded BC (19/0.0117)	16	2	CMP CL3P	24 lbs	0.177"	1,000' Reel (06)	Natural (23)
71704	16/4 stranded BC (19/0.0117)	16	4	CMP CL3P	46 lbs	0.214"	1,000' Reel (06)	Natural (23)
71502	14/2 stranded BC (19/0.0147)	14	2	CMP CL3P	36 lbs	0.206"	1,000' Reel (06)	Natural (23)



## Plenum Overall Shield Electronic Wire

Part Number	Description	AWG	Cond	UL Type	Weight (Nom.)	Outside Dia. (Nom.)	Packaging	Jacket Color
75302	22/2 stranded BC (7/30) OAS	22	2	CMP CL3P	11 lbs	0.128"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75304	22/4 stranded BC (7/30) OAS	22	4	CMP CL3P	17 lbs	0.146"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75306	22/6 stranded BC (7/30) OAS	22	6	CMP CL3P	23 lbs	0.172"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75308	22/8 stranded BC (7/30) OAS	22	8	CMP CL3P	30 lbs	0.190"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75902	18/2 stranded BC (70.0152) OAS	18	2	CMP CL3P	19 lbs	0.162"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75903	18/3 stranded BC (70.0152) OAS	18	3	CMP CL3P	25 lbs	0.170"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75904	18/4 stranded BC (70.0152) OAS	18	4	CMP CL3P	32 lbs	0.186"	1,000' Reel (06) 1,000' Box (46)	Natural (23)
75906	18/6 stranded BC (70.0152) OAS	18	6	CMP CL3P	47 lbs	0.227"	1,000' Reel (06)	Natural (23)
75908	18/8 stranded BC (70.0152) OAS	18	8	CMP CL3P	60 lbs	0.246"	1,000' Reel (06)	Natural (23)
75702	16/2 stranded BC (70.0117) OAS	16	2	CMP CL3P	26 lbs	0.187"	1,000' Reel (06)	Natural (23)
75704	16/4 stranded BC (70.0117) OAS	16	4	CMP CL3P	48 lbs	0.224"	1,000' Reel (06)	Natural (23)
75502	14/2 stranded BC (19/0.0147) OAS	14	2	CMP CL3P	39 lbs	0.216"	1,000' Reel (06)	Natural (23)

