

**Signal  
to  
the world**



**Fire Alarm System  
Solutions  
Cable & Assemblies**

# Fire Alarm Cable



Our Fire Alarm Cables are manufactured in a wide variety of gauge sizes, shielding configurations and jacketing materials including plenum, riser and general purpose.

## Features:

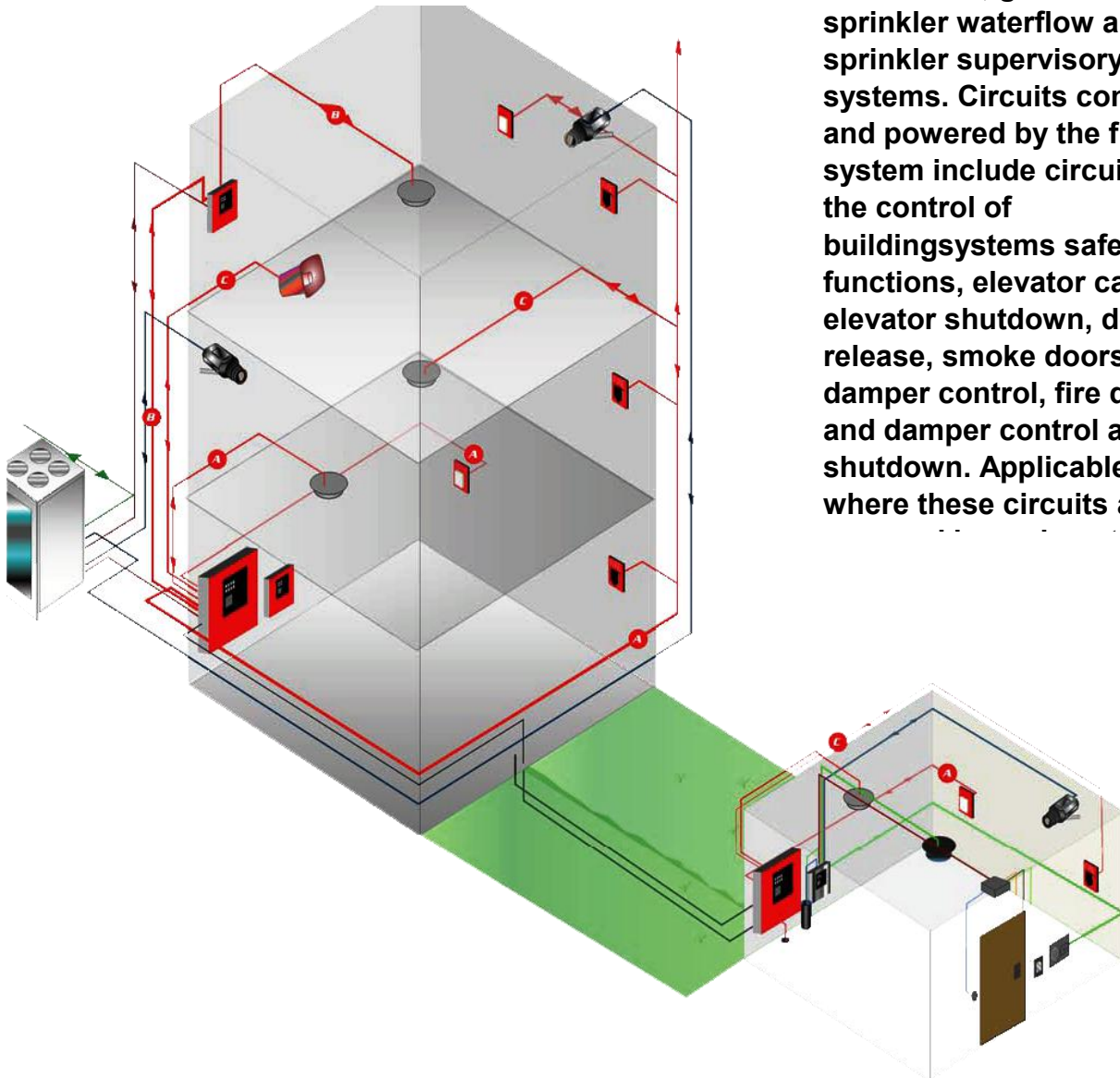
- Countdown or sequential footage markings
- New labeling system on boxes
- Color coded boxes
- Zone and room markings

## Fire Power Limited Cable:

Type FPL, FPLR, FPLP

## Article 760:

The scope of this article covers the installation of wiring and equipment of fire alarm systems including all circuits controlled and powered by the fire alarm system. These include fire detection and alarm notification, guard's tour, sprinkler waterflow and sprinkler supervisory systems. Circuits controlled and powered by the fire alarm system include circuits for the control of buildingsystems safety functions, elevator capture, elevator shutdown, door release, smoke doors and damper control, fire doors and damper control and fan shutdown. Applicable only where these circuits are



## Construction:

	Non-Plenum	Plenum	Direct Burial
Conductors	Bare Copper		
Insulation	PP/PE	Low-Smoke PVC	SRPVC
	Conductor Color Code Chart 4		
Jacket	PVC	Low-Smoke PVC	PVC
Colors	Red, White		Black



## Features:

Sunlight Resistant (Except Plenum)

## Popular Packaging:

Pull Box 500', 1000'

Reel 500', 1000'

Consult factory for other packaging options

## 22 AWG – UNSHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110001	4	SOL	17.0	15	0.118/3.00	15
7110002	6	SOL	17.0	15	0.144/3.66	19
7110003	8	SOL	17.0	15	0.155/3.94	24
7110004	10	SOL	17.5	15	0.182/4.62	31
7110005	12	SOL	17.0	15	0.188/4.78	37
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110021	4	SOL	17.0	15	0.118/3.00	15
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110201	4	STR			0.137/3.50	
7110202	6	STR			0.163/4.16	
7110203	8	STR			0.171/4.34	
7110204	10	STR			0.197/5.02	
7110205	12	STR			0.204/5.18	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110221	4	STR			0.134/3.40	

## Insulation Color

Number	Description
4	Blk,Red,Ylw,Grn
6	Blk,Red,Ylw,Grn,Brn,Blu
8	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk
10	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk,Tan,Org
12	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk,Tan,Org,Blk\Wht,Red\Wht

## 18 AWG – UNSHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110006	2	SOL	6.50	20	0.134/3.40	17
7110007	4	SOL	6.50	20	0.170/4.32	29
7110008	6	SOL	6.32	20	0.192/4.87	41
7110009	8	SOL	6.50	20	0.208/5.28	52
7110010	10	SOL	6.50	20	0.244/6.20	68
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110022	2	SOL	6.50	19	0.138/3.50	17
7110023	4	SOL	6.50	19	0.174/4.42	34
7110024	6	SOL	6.50	19	0.187/4.75	44
7110025	10	SOL	6.50	19	0.244/6.20	67
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110041	2	SOL	6.50	24	0.134/3.40	19
7110042	4	SOL	6.50	24	0.156/3.96	32
7110043	6	SOL	6.50	24	0.192/4.87	45
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110206	2	STR	6.50	19	0.260/6.60	37
7110207	4	STR	6.50	19	0.295/4.49	59
7110208	6	STR	6.50	19	0.345/8.76	76
7110209	8	STR	6.50	19	0.375/9.52	95
7110210	10	STR	6.50	19	0.260/6.60	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110222	2	STR			0.138/3.85	
7110223	4	STR			0.174/4.82	
7110224	6	STR			0.187/4.97	
7110225	10	STR			0.244/6.60	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110241	2	STR			0.134/3.85	
7110242	4	STR			0.156/4.40	
7110243	6	STR			0.192/5.28	

## Insulation Color

Number	Description
2	Blk,Red
4	Blk,Red,Ylw,Grn
6	Blk,Red,Ylw,Grn,Brn,Blu
8	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk
10	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk,Tan,Org

## Construction:

	Non-Plenum	Plenum	Direct Burial
Conductors	Bare Copper		
Insulation	PP/PVC	Low-Smoke PVC	SRPVC
	Conductor Color Code Chart 4		
Jacket	PVC	Low-Smoke PVC	PVC
Colors	Red, White		Black



## Features:

Sunlight Resistant (Except Plenum)

## Popular Packaging:

Pull Box 500', 1000'

Reel 500', 1000'

Consult factory for other packaging options

## 16 AWG – UNSHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
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### GENERAL PURPOSE – FPL LISTED

7110011	2	SOL	4.15	20	0.157/4.01	24
7110012	4	SOL	4.15	20	0.180/4.57	43

### RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED

7110026	2	SOL	4.919	20	0.155/3.94	24
7110027	4	SOL	4.15	20	0.184/4.67	43

### PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED

7110044	2	SOL	4.19	27	0.154/3.91	26
7110045	4	SOL	4.05	27	0.180/4.57	47

### GENERAL PURPOSE – FPL LISTED

7110211	2	STR			0.173/4.41	
7110212	4	STR			0.195/4.97	

### RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED

7110226	2	STR			0.171/4.34	
7110227	4	STR			0.200/5.07	

### PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED

7110244	2	STR			0.170/4.31	
7110245	4	STR			0.195/4.97	

## Insulation Color

Number	Description
2	Blk,Red
4	Blk,Red,Ylw,Grn

## 14 AWG – UNSHIELDED

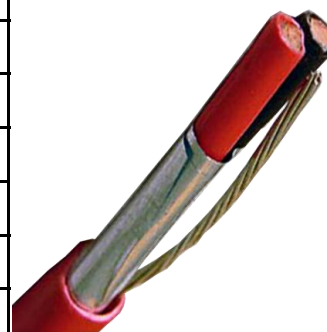
#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110013	2	SOL	2.60	22	0.200/5.08	35
7110014	4	SOL	2.60	22	0.214/5.44	64
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110028	2	SOL	2.54	22	0.202/5.13	37
7110029	4	SOL	2.54	22	0.236/5.99	65
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110046	2	SOL	2.50	27	0.180/4.57	38
7110047	4	SOL	2.50	27	0.246/6.25	68
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110213	2	STR			0.216/5.48	
7110214	4	STR			0.230/5.84	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110228	2	STR			0.218/5.53	
7110229	4	STR			0.251/6.39	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110246	2	STR			0.195/4.97	
7110247	4	STR			0.262/6.65	

## 12 AWG – UNSHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110015	2	SOL	1.60	22	0.242/6.15	52
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110030	2	SOL	2.54	22	0.232/5.89	55
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110048	2	SOL	1.60	30	0.246/6.25	55
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110215	2	STR			0.258/6.55	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110230	2	STR			0.247/6.29	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110248	2	STR			0.262/6.65	

## Construction:

	Non-Plenum	Plenum
Conductors	Bare Copper	
Shielded	Al/Mylar with Drain Wire	
Insulation	PP/PVC	Low-Smoke PVC
	Conductor Color Code Chart 4	
Jacket	PVC	Low-Smoke PVC
Colors	Red, White	



## Features:

Sunlight Resistant (Except Plenum)

## Popular Packaging:

Pull Box 500', 1000'

Reel 500', 1000'

Consult factory for other packaging options

## 22 AWG – SHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110101	4	SOL	17.0	31	0.124/3.15	17
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110121	4	SOL	17.5	31	0.126/3.20	16
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110141	4	SOL	17.0	53	0.126/3.20	18
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110301	4	STR			0.136/3.45	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110321	4	STR			0.142/3.60	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110341	4	STR			0.142/3.60	

## Insulation Color

Number	Description
4	Blk,Red,Ylw,Grn

## 18 AWG – SHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110102	2	SOL	6.50	42	0.138/3.51	20
7110103	4	SOL	6.50	42	0.160/4.06	31
7110104	6	SOL	6.50	42	0.196/4.99	50
7110105	8	SOL	6.50	42	0.212/5.38	57
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110122	2	SOL	6.50	42	0.138/3.51	21
7110123	4	SOL	6.50	42	0.163/4.14	32
7110124	6	SOL	6.50	42	0.196/4.99	46
7110125	8	SOL	6.50	42	0.212/5.38	56
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110142	2	SOL	6.50	68	0.140/3.57	22
7110143	4	SOL	6.50	68	0.168/4.27	35
7110144	6	SOL	6.50	68	0.196/4.99	50
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110302	2	STR			0.154/3.91	
7110303	4	STR			0.175/4.46	
7110304	6	STR			0.212/5.39	
7110305	8	STR			0.227/5.78	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110322	2	STR			0.154/3.91	
7110323	4	STR			0.179/4.54	
7110324	6	STR			0.212/5.39	
7110325	8	STR			0.227/5.78	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110342	2	STR			0.156/3.97	
7110343	4	STR			0.184/4.67	
7110344	6	STR			0.212/5.39	

## Insulation Color

Number	Description
2	Blk,Red
4	Blk,Red,Ylw,Grn
6	Blk,Red,Ylw,Grn,Brn,Blu
8	Blk,Red,Ylw,Grn,Brn,Blu,Ppl,Pnk



## 16 AWG – SHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110106	2	SOL	4.10	46	0.158/4.01	29
7110107	4	SOL	4.10	46	0.186/4.72	49
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110126	2	SOL	4.10	46	0.166/4.22	31
7110127	4	SOL	4.10	46	0.195/4.95	49
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110145	2	SOL	4.05	77	0.175/4.45	35
7110146	4	SOL	4.05	77	0.202/5.13	52
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110306	2	STR			0.174/4.41	
7110307	4	STR			0.201/5.12	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110326	2	STR			0.182/4.62	
7110327	4	STR			0.211/5.35	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110345	2	STR			0.191/4.85	
7110346	4	STR			0.211/5.37	

## Insulation Color

Number	Description
2	Blk,Red
4	Blk,Red,Ylw,Grn

### Quality



### Professional



### Safety



## 14 AWG – SHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110108	2	SOL	2.54	52	0.200/5.33	40
7110109	4	SOL	2.54	52	0.214/5.59	67
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110128	2	SOL	2.54	52	0.202/5.21	42
7110129	4	SOL	2.54	52	0.236/6.10	72
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110147	2	SOL	2.50	86	0.180/5.28	44
7110148	4	SOL	2.50	86	0.246/6.86	75
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110308	2	STR			0.216/5.73	
7110309	4	STR			0.230/5.99	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110328	2	STR			0.218/5.61	
7110329	4	STR			0.251/6.50	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110347	2	STR			0.195/5.68	
7110348	4	STR			0.262/7.26	

## 12 AWG – UNSHIELDED

#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110110	2	SOL	1.60	56	0.242/6.10	59
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110130	2	SOL	1.65	56	0.232/5.54	60
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110149	2	SOL	1.60	96	0.246/6.22	63
<b>GENERAL PURPOSE – FPL LISTED</b>						
7110310	2	STR			0.258/6.50	
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110330	2	STR			0.247/5.94	
<b>PLENUM RATED – FPLP, CL2P, C(UL), FT6 LISTED</b>						
7110349	2	STR			0.262/6.62	

## Construction:

- Solid Bare Copper Conductors
- PVC Insulation
- Parallel Zip Construction
- Jacket Colors: Red, White

## Features:

- Sunlight Resistant
- One Conductor Ribbed for Polarity

## Popular Packaging:

- Pull Box 500', 1000'
- Reel 500', 1000'
- Consult factory for other packaging options



#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (mm)	AVG. WT.PER MFT (LBS)
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110031	18AWG 2C	SOL	6.50	17	2.24 × 4.99	18
7110032	16AWG 2C	SOL	4.05	17	2.39 × 5.08	26
7110033	14AWG 2C	SOL	2.54	17	2.72 × 5.59	37
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110231	18AWG 2C	STR			2.44 × 5.39	
7110232	16AWG 2C	STR			2.59 × 5.48	
7110233	14AWG 2C	STR			2.92 × 5.99	



## Fire Alarm Cables – Unshielded Mid. Capacitance

P10

### Construction:

Solid Bare Copper Conductors  
Polypropylene Insulation  
PVC Jacket  
Conductor Color Code Chart 4  
Jacket Colors: Red

### Features:

Sunlight Resistant

### Popular Packaging:

Pull Box 500', 1000'  
Reel 500', 1000'  
Consult factory for other packaging options



#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110034	18AWG 2C	SOL	6.25	15	0.144/3.66	19
7110035	16AWG 2C	SOL	4.07	17	0.170/4.32	26

### RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED

7110234	18AWG 2C	STR			0.160/4.06	
7110235	16AWG 2C	STR			0.186/4.72	

## Fire Alarm Cables – Shielded Mid. Capacitance

### Construction:

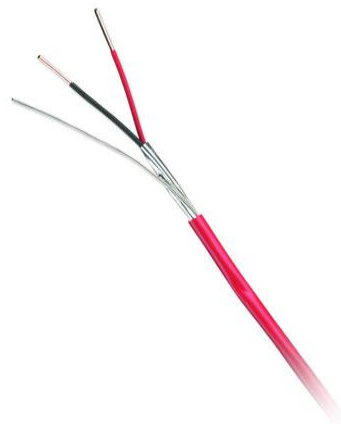
Solid Bare Copper Conductors  
Aluminum/Mylar Overall Shield with Drain Wire  
Polypropylene Insulation  
PVC Jacket  
Conductor Color Code Chart 4  
Jacket Colors: Red

### Features:

Sunlight Resistant

### Popular Packaging:

Pull Box 500', 1000'  
Reel 500', 1000'  
Consult factory for other packaging options



#CODE	#COND	STR/ SOL	DC Resistance (OHMS)	NOM. CAP. (PF/FT)	NOM. O.D. (in/mm)	AVG. WT.PER MFT (LBS)
<b>RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED</b>						
7110131	18AWG 2C	SOL	6.32	34	0.148/3.76	21
7110132	16AWG 2C	SOL	4.07	38	0.187/4.75	32

### RISER RATED – FPLR, CL2R, C(UL), FT4 LISTED

7110331	18AWG 2C	STR			0.164/4.16	
7110332	16AWG 2C	STR			0.203/5.15	

## SILICONE INSULATION

- ZION PH fire resistant cables are manufactured within the specific requirement of fire resistant cable standards.
- The fire resistant cable assures reliable circuit integrity to keep emergency evacuation systems operational even whilst the cable is
- ZION fire resistant cables can be used for fire alarm systems, power supply or control of equipment that needs to function during a fire such as **Warning**, **Emergency lighting**, **Evacuation** and **Monitor** systems.
- The place of usage is intelligent or semi-intelligent buildings where dense human population or valuable goods are found.
- These can be **Hospitals**, **Cinemas**, **Theatres**, **Schools**, **Shopping centers**, **Airports**, **Factories**, **Hotels** etc.
- ZION products have **low smoke density**, are **halogen free** and they don't emit poisonous gases.



### Flame Tests:

BS 4066 part 1 & 3, EN 50266-2-4, IEC 60332-3-24, IEC/EN 60332-1

### Insulation Integrity:

BS 6387 CWZ, EN 50200 PH30, IEC 60331

### Smoke Density:

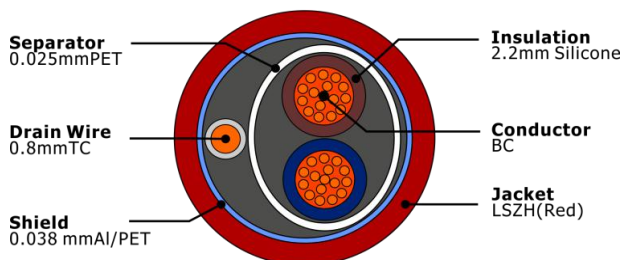
BS 7622, IEC/EN 61034, HD 606

### Corrosive Gas Measurement:

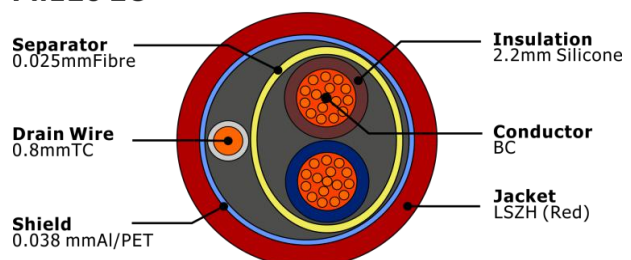
BS EN 50267-2-2, IEC 60754-2

## Section View

### Ph30 2C



### Ph120 2C



## Cable Construction

<b>Conductor</b>	Plain annealed copper wire, class 1,2 or 5 according to EN60228. IEC/EN 228, BS 6360, VDE 0295, HD 383
<b>Insulation</b>	Fire resistant silicone rubber
<b>Insulation Color</b>	2 Core: Blue/Brown 3 Core: Blue/Black/Grey 4 Core: Blue/Brown/Black/Grey
<b>Shield</b>	Aluminum laminated Polyester Tape Coverage 100 % (Overlapping 20%)
<b>Drain Wire</b>	Tinned Copper to BS 6360 Solid 0.80mm
<b>Jacket</b>	LSZH, Halogen Free Flame Retardant to EN 50290-2, BS 7655 LTS1/LTS3
<b>Jacket Color</b>	Red (RAL 3000) or White

## Electrical & Mechanical Characteristics

Characteristic	Value			
	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	4.0 mm <sup>2</sup>
Max. Conductor Resistance at 20°C Class 1,2 (Ω/km)	18.0	12.0	7.4	<b>4.6</b>
Max. Conductor Resistance at 20°C Class 5 (Ω/km)	19.5	13.3	8.0	<b>4.95</b>
Min. Insulation Resistance at 0°C (MΩxkm)	200	200	200	<b>200</b>
Operating Voltage	300/500 V			
Test Voltage	2000 V			
Temperature Rating (Fixed)	-30°C to + 90°C			
Temperature Rating (Flexing)	-5°C to + 60°C			
Min. Bend Radius (Fixed)	8 × D			
Min. Bend Radius (Flexing)	15 × D			

**PH 30 Physical Information**

Code	Nom. Cond.Cross-Sect.(mm <sup>2</sup> )	Conductor Size (no./mm)	Drain Wire Size (no./mm)	Cable Diameter mm (±5 %)	Weight (Kg/km)
7110401	2×1.0	30/0.2	1/0.80	6.1	
7110402	2×1.5	30/0.25	1/0.80	7.5	
7110403	2×2.5	49/0.25	1/0.80	8.5	
7110404	2×4.0	56/0.3	1/0.80	9.6	
7110405	2×6.0	85/0.3	1/0.80	11.5	
7110406	3×1.0	30/0.2	1/0.80	6.5	
7110407	3×1.5	30/0.25	1/0.80	7.4	
7110408	3×2.5	49/0.25	1/0.80	8.65	
7110409	3×4.0	56/0.3	1/0.80	10.1	
7110410	4×1.0	30/0.2	1/0.80	7.1	
7110411	4×1.5	30/0.25	1/0.80	8.2	
7110412	4×2.5	49/0.25	1/0.80	9.75	
7110413	4×4.0	56/0.3	1/0.80	11.4	
7110414	7×1.0	30/0.2	1/0.80	10.0	
7110415	7×1.5	30/0.25	1/0.80	11.3	
7110416	12×1.0	30/0.2	1/0.80	12.5	
7110417	12×1.5	30/0.25	1/0.80	14.5	
7110418	19×1.0	30/0.2	1/0.80	15.0	
7110419	19×1.5	30/0.25	1/0.80	17.0	

**Application**



## PH 120 Physical Information

Code	Nom. Cond.Cross-Sect.(mm <sup>2</sup> )	Conductor Size (no./mm)	Drain Wire Size (no./mm)	Cable Diameter mm (±5 %)	Weight (Kg/km)
7110451	2×1.0	30/0.2	1/0.80	6.1	
7110452	2×1.5	30/0.25	1/0.80	7.5	
7110453	2×2.5	49/0.25	1/0.80	8.5	
7110454	2×4.0	56/0.3	1/0.80	9.6	
7110455	2×6.0	85/0.3	1/0.80	11.7	
7110456	3×1.0	30/0.2	1/0.80	6.5	
7110457	3×1.5	30/0.25	1/0.80	7.4	
7110458	3×2.5	49/0.25	1/0.80	8.65	
7110459	3×4.0	56/0.3	1/0.80	10.1	
7110460	4×1.0	30/0.2	1/0.80	7.1	
7110461	4×1.5	30/0.25	1/0.80	8.2	
7110462	4×2.5	49/0.25	1/0.80	9.75	
7110463	4×4.0	56/0.3	1/0.80	11.4	
7110464	7×1.0	30/0.2	1/0.80	10.0	
7110465	7×1.5	30/0.25	1/0.80	11.3	
7110466	12×1.0	30/0.2	1/0.80	12.5	
7110467	12×1.5	30/0.25	1/0.80	14.5	
7110468	19×1.0	30/0.2	1/0.80	15.0	
7110469	19×1.5	30/0.25	1/0.80	17.0	





# ZION FPLR TYPE-POWER LIMITED FIRE ALARM CABLE

P15

- The UL listed FPLR type shielded power limited fire alarm riser cable from Norden is suitable to be used in vertical runs in signaling & fire alarm systems. It works in high temperature levels. This cable is constructed with FR-PVC insulation and outer jacket with aluminum and PE tape shielding that meets UL 1666 specifications. This cable complies with VW - 1 Flame Test requirements in ANSI/UL 1581.
- Tested as per ANSI/UL 1666 for flame propagation height of electrical and optical - Fibre Cables Installed Vertically in Shafts.



## Standard:

ANSI/UL 1424, Cables for Power-Limited Fire-Alarm Circuits

### All these cables comply to:

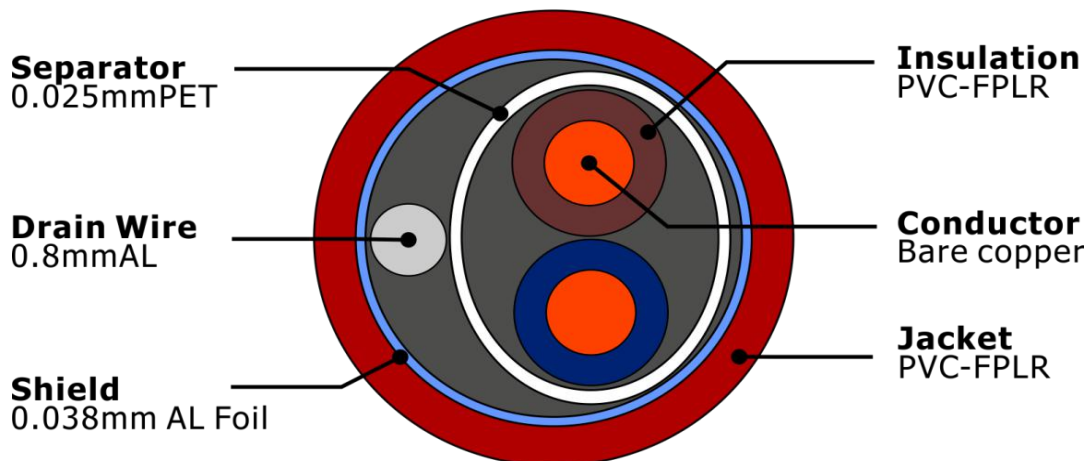
Application of insulation	BS 7629-1-2008
Inner Conductor Diameter	BS EN 60228
Insulation Type	BS 50363-5
Corrosive and Acid Gas Emission	BS EN 50267-2-1
Flame Propagation(bunched cable)	IEC332-3/TS EN50266
Flame Propagation(single cable)	IEC332-1/TS EN60332-1-2
Sheath	BS 7656-6-1/LTS 3

## UL File No

E491510

## SECTION VIEW

### FPLR



# ZION FPLR TYPE-POWER LIMITED FIRE ALARM CABLE

P16

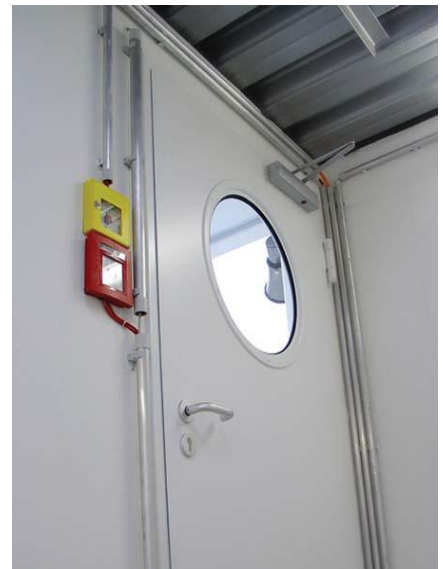
## Cable Construction

Conductor Solid Bare Copper	Outer Jacket FR - PVC	Drain Wire 1/0.8 AL	Temperature Range -35°C to +105°C
Insulation FR - PVC	Jacket Colour Red	Jacket Thickness 0.85 mm	
Insulation Colour 2 Core: Brown/Blue	Shielding PET+AL/PET	Nylon Rip Cord 150D	

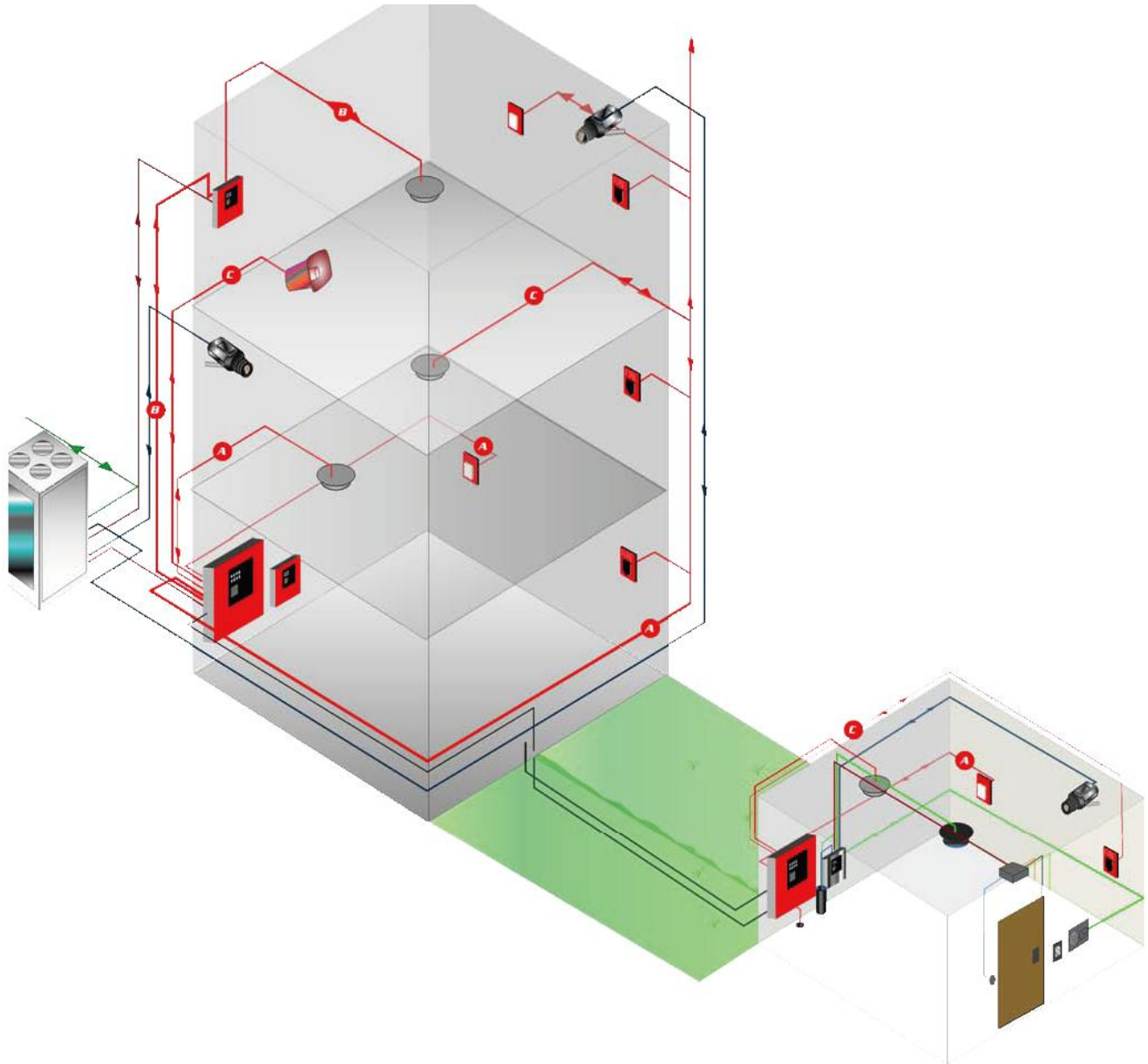
## Physical Characteristics

No.of Codes	No. of Cores/Cross-Section(mm <sup>2</sup> )	Cable diameter (mm)	Insulation diameter mm (+/- 0.08)	Jacket diameter (mm)
7110601	2×1.0	1.13	2.2	6.2
7110602	2×1.5	1.36	2.4	6.8
7110603	2×2.5	1.76	2.8	7.6
7110604	3×1.0	1.13	2.2	6.4
7110605	3×1.5	1.36	2.4	7.0
7110606	3×2.5	1.76	2.8	7.8
7110607	4×1.0	1.13	2.2	6.9
7110608	4×1.5	1.36	2.4	7.6
7110609	4×2.5	1.76	2.8	8.5
7110610	5×1.5	1.36	2.4	8.5
7110611	7×1.5	1.36	2.4	9.6

## Application



**Application Scenarios**



# FIRE ALARM CABLE

P18

## FRLS or FRFH

- ZION PH fire resistant cables are manufactured within the specific requirement of fire resistant cable standards.
- The fire resistant cable assures reliable circuit integrity to keep emergency evacuation systems operational even whilst the cable is
- ZION fire resistant cables can be used for fire alarm systems, power supply or control of equipment that needs to function during a fire such as **W**arning, **E**mergency lighting, **E**vacuation and **M**onitor systems.
- The place of usage is intelligent or semi-intelligent buildings where dense human population or valuable goods are found.
- These can be **H**ospitals, **C**inemas, **T**heatres, **S**chools, **S**hopping centers, **A**irports, **F**actories, **H**otels etc.
- ZION products have **low smoke density** , are **halogen free** and they don't emit poisonous gases.



### All these cables comply to:

BS 7629-1:2008

IEC 60754-1-99

IEC 61034-2-2005

BS EN 61034-2:2005

IEC 60754-2-99

IEC 60331-21:1999

BS EN 50267-2-1:1999

IEC 60331-23-2003

IEC 60332-22-2005

## Cable Construction

	КПС нг(А)	КПСЭ нг(А)
<b>Conductor</b>	Bare copper class 1	
<b>Insulation</b>	Fire resistant silicone rubber	
<b>Insulation Color</b>	2 Core: Blue/Brown	
	4 Core: Blue/Brown/Black/Grey	
<b>Shield 1</b>	None	PET
<b>Drain Wire</b>	None	0.80 mm Tinned Copper
<b>Shield 2</b>	None	AL/PET
<b>Jacket</b>	FRLS or FRFH(PVC)	
<b>Jacket Color</b>	Red ( RAL 3000) or Orange	

## Electrical & Mechanical Characteristics

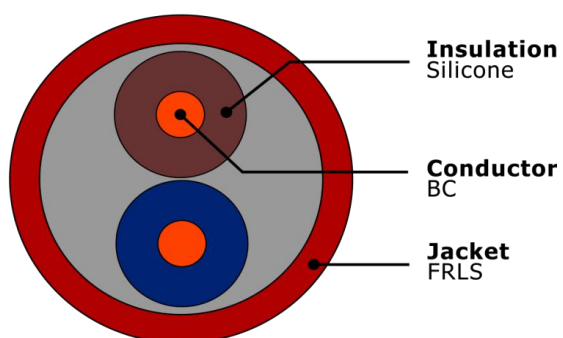
Characteristic	Value
Min. Insulation Resistant	200 MΩ/km
Max. Operating Voltage	300/500 V
Test Voltage	1000 V
Temperature Rating	.-15°C to + 90°C
Min. Bend Radius	8 × D

## КПС нг(A) Physical Information

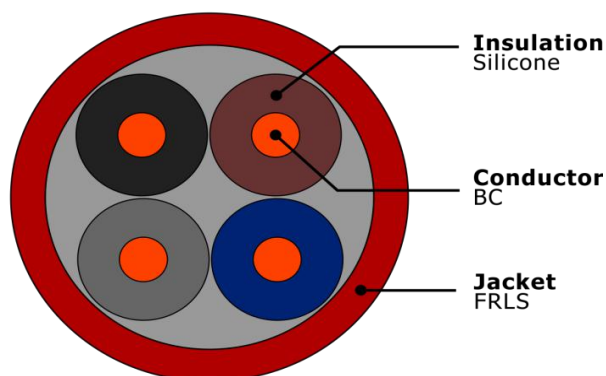
Code	Nom. Cond.Cross-Sect.(mm <sup>2</sup> )	Conductor Size (no./mm)	Insulation/ Thickness(mm)	Cable Diameter mm (±5 %)	Level of twisting
7110501	2×0.22	BC 1/0.5	Silicone/0.45	3.90	38.00
7110502	2×0.5	BC 1/0.78	Silicone/0.53	4.80	58.00
7110503	2×0.75	BC 1/0.96	Silicone/0.64	5.70	74.80
7110504	2×1.0	BC 1/1.13	Silicone/0.58	6.10	74.80
7110505	2×1.5	BC 1/1.38	Silicone/0.71	6.70	74.80
7110506	2×2.5	BC 1/1.78	Silicone/0.82	8.30	75.80
7110507	4×0.22	BC 1/0.5	Silicone/0.45	4.50	37.96/45.98
7110508	4×0.5	BC 1/0.78	Silicone/0.53	5.60	58/62.99
7110509	4×0.75	BC 1/0.96	Silicone/0.64	6.60	74.83/84.27
7110510	4×1.0	BC 1/1.13	Silicone/0.58	7.10	74.83/84.27
7110511	4×1.5	BC 1/1.38	Silicone/0.71	7.80	74.83/84.27
7110512	4×2.5	BC 1/1.78	Silicone/0.82	13.00	75.83/84.27

## Section View

КПС нг(A)2C Unshielded Cable



КПС нг(A) 4C Unshielded Cable

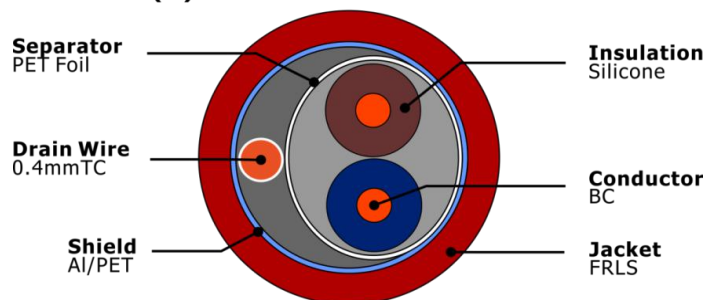


## КПСЭ нг(A) Physical Information

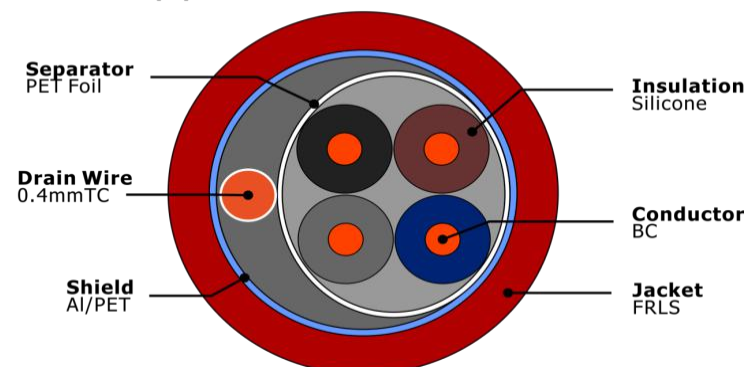
Code	Type (mm <sup>2</sup> )	Conduct or Size (no./mm)	Insulation/ Thickness(mm)	Shielded1/ Drian Wire/ Shielded2	Cable Diameter mm (±5 %)	Level of twisting
7110541	2×0.22	BC 1/0.5	Silicone/0.45	PET/TC/AL-Foil	4.10	38.00
7110542	2×0.5	BC 1/0.78	Silicone/0.53	PET/TC/AL-Foil	5.00	58.00
7110543	2×0.75	BC 1/0.96	Silicone/0.64	PET/TC/AL-Foil	5.90	74.80
7110544	2×1.0	BC 1/1.13	Silicone/0.58	PET/TC/AL-Foil	6.30	74.80
7110545	2×1.5	BC 1/1.38	Silicone/0.71	PET/TC/AL-Foil	6.90	74.80
7110546	2×2.5	BC 1/1.78	Silicone/0.82	PET/TC/AL-Foil	8.40	75.80
7110547	4×0.22	BC 1/0.5	Silicone/0.45	PET/TC/AL-Foil	4.80	37.96/45.98
7110548	4×0.5	BC 1/0.78	Silicone/0.53	PET/TC/AL-Foil	5.85	58/62.99
7110549	4×0.75	BC 1/0.96	Silicone/0.64	PET/TC/AL-Foil	6.85	74.83/84.27
7110550	4×1.0	BC 1/1.13	Silicone/0.58	PET/TC/AL-Foil	7.30	74.83/84.27
7110551	4×1.5	BC 1/1.38	Silicone/0.71	PET/TC/AL-Foil	8.00	74.83/84.27
7110552	4×2.5	BC 1/1.78	Silicone/0.82	PET/TC/AL-Foil	13.50	75.83/84.27

## Section View

### КПСЭ нг(A) 2C shielded Cable



### КПСЭ нг(A) 4C shielded Cable





## Order Informations

Package	100M/Reel,200M/Reel,500M/Wooden Spool
Delivery time	Normally 25 days after received the deposit.
Brand	HELLOSIGNAL™ OR OEM

## Online Service

Skype	kingtone3
ICQ	246632889
Whatsapp	0086 18268009191
Email	michael@zion-communication.com



[www.zion-communication.com](http://www.zion-communication.com)  
**HANGZHOU ZION COMMUNICATION CO.,LTD**