



## Description:

(1) coax-20 AWG solid BC cond., gas-injected foam HDPE insul., 95% BC braid shield, PVC jkt., cabled with (1) pair - 18 AWG stranded (19x30) BC cond., PO insul., Beldfoil® shield, PVC jkt., cabled with (2) cond.-18 AWG (7x26) BC cond., PP insul, PVC Jkt.

## Coax

### Physical Characteristics

#### Conductor

##### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	20	Solid	BC - Bare Copper	0.032

#### Insulation

##### Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	0.145

#### Outer Shield

##### Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	BC - Bare Copper	95.000

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

##### Outer Jacket Diameter:

Nom. Dia. (in.)
0.227

##### Outer Jacket Color Code Chart:

Number	Color
Video	Black

### Applicable Specifications and Agency Compliance

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

EU CE Mark: Yes

RG Type: 59/U

#### Flame Test

UL Flame Test: UL1666 Vertical Shaft

#### Suitability

Suitability - Indoor: Yes

### Electrical Characteristics

#### Nom. Characteristic Impedance:

Impedance (Ohm)
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## 502PTZ Composite - For PTZ Cameras: CCTV + Control + Power

75

**Nom. Inductance:**

Inductance (µH/ft)
0.097

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)
16.300

**Nominal Velocity of Propagation:**

VP (%)
83.000

**Nominal Delay:**

Delay (ns/ft)
1.220

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)
10.000

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)
3.500

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.300
5.000	0.650
10.000	0.900
50.000	1.900
100.000	2.600
200.000	3.600
400.000	5.000
700.000	7.000
900.000	8.000
1000.000	8.500

**Max. Operating Voltage - UL:**

300 V RMS

## Twisted Pair

### Physical Characteristics

#### Conductor

**AWG:**

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
1	18	19x30	BC - Bare Copper	0.044

#### Insulation

**Insulation Material:**

Insulation Material Dia. (in.)
PO - Polyolefin 0.080

**Twisted Pair Color Code Chart:**

Number	Color
1	Blue and White/Blue

#### Outer Shield

**Outer Shield Material:**

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100.000

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
20	7x28	TC - Tinned Copper

## Outer Jacket

### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

### Outer Jacket Diameter:

Nom. Dia. (in.)
0.219

### Outer Jacket Color Code Chart:

Number	Color
1	Blue

## Applicable Specifications and Agency Compliance Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

## Flame Test

UL Flame Test: UL1666 Vertical Shaft

## Suitability

Suitability - Indoor: Yes

## Electrical Characteristics

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
44.000

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
26.000

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.500

### Max. Operating Voltage - Other:

Voltage
300 V RMSI

### Max. Recommended Current:

Description	Current
Data/Control	5.2 Amps

## Multi Conductor

### Physical Characteristics

#### Conductor

##### AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
2	18	7x26	BC - Bare Copper	0.047

#### Insulation

##### Insulation Material:

Insulation Material
PP - Polypropylene

##### Insulation Color Code Chart:

Number	Color
1	Red
2	Black

#### Individual Shield

##### Individual Shield Color Code Chart:

## 502PTZ Composite - For PTZ Cameras: CCTV + Control + Power

### Outer Jacket

Outer Jacket Diameter:

Nom. Dia. (in.)
0.158

Outer Jacket Color Code Chart:

Number	Color
1	White

### Applicable Specifications and Agency Compliance Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

### Flame Test

UL Flame Test: UL1666 Vertical Shaft

### Suitability

Suitability - Indoor: Yes

### Electrical Characteristics

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
21.500

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.500

Max. Operating Voltage - Other:

Voltage
300 V RMS

Max. Recommended Current:

Current
5 Amps per conductor @ 25°C

## Physical Characteristics (Overall)

### Conductor

### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Unjacketed

### Overall Cabling

Overall Nominal Diameter: 0.451 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -10°C To +75°C

Separation Temperature Range: 0°C To +75°C

Bulk Cable Weight: 74.000 lbs/1000 ft.

Max. Recommended Pulling Tension: 140.000 lbs.

Min. Bend Radius (Install)/Minor Axis: 4.500 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 04/01/2005

## 502PTZ Composite - For PTZ Cameras: CCTV + Control + Power

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 602PTZ

### Notes (Overall)

**Notes:** RG59 CCTV + 1 STP18 AWG Control Grade + 2C 18 AWG CMR. Individually jacketed and color coded components, cabled around and each fused to a central binding spline. Cold environment installation: When installing cables that have been stored at ambient temperatures of 32 degrees Fahrenheit (0 degrees Centigrade) or lower, Belden recommends conditioning of the cable for 12 hours at room temperature prior to individual cable leg separation. Banana Peel® US PATENT 7049523.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
502PTZ 0001000	1,000 FT	89.000 LB	NONE		1 RG59 + 2C18 SH + 2C18
502PTZ 000500	500 FT	45.000 LB	NONE		1 RG59 + 2C18 SH + 2C18

# Sound, Security and Alarm Cables

## Cable Finder Guide — Coax and Composite



Coax Series or Component Type	AWG Size	Stranding	Non-Plenum				Plenum			
			Part No.	Rating	Shield/Braid Coverage	Page No.	Part No.	Rating	Shield/Braid Coverage	Page No.
<b>CATV/MATV Coax</b>										
RG-59/U	20	Solid	—	—	—	—	6439C8	CMP	Duofoil + 80% Aluminum	20.49
	20	Solid	—	—	—	—	6439Q8	CMP	Quad Shield	20.49
RG-6/U	18	Solid	5339B5	CM	Duofoil + 60% Aluminum	20.48	633938	CMP	Duofoil + 90% Aluminum	20.49
	18	Solid	5339Q5	CM	Quad Shield	20.48	6339Q8	CMP	Quad Shield	20.49
RG-11/U	14	Solid	—	—	—	—	6139B8	CMP	Duofoil + 60% Aluminum	20.49
<b>CCTV Coax</b>										
Mini 59	25	Solid	573945	CM	94% Bare Copper	20.37	673948	CMP	95% Bare Copper	20.39
RG-59/U	22	7	551945	CM	95% Bare Copper	20.37	—	—	—	—
	20	Solid	543945	CM	95% Bare Copper	20.37	643948	CMP	95% Bare Copper	20.39
RG-6/U	18	Solid	533945	CM	95% Bare Copper	20.37	633948	CMP	95% Bare Copper	20.39
RG-11/U	14	Solid	513945	CM	95% Bare Copper	20.37	613948	CMP	95% Bare Copper	20.39
<b>CCTV Coax, Surveillance</b>										
RG-59/U	20	Solid	—	—	—	—	7986LC	CMP	95% Bare Copper	20.50
RG-6/U	18	Solid	—	—	—	—	7985LC	CMP	95% Bare Copper	20.50
<b>CATV Coax, Water-blocked</b>										
RG-59/U	20	Solid	5439W5	CM	Duofoil® + 95% TC	20.37	—	—	—	—
RG-6/U	18	Solid	5339W5	CM	Duofoil + 60% Aluminum	20.37	—	—	—	—
<b>Security Coax</b>										
RG-62	22	Solid	—	—	—	—	6539Y8	CMP	95% Bare Copper	20.39
<b>Schlage Coax</b>										
RG-6/U	18	Solid	5399B5	CM	Duobond® + 60% Alum.	20.48	—	—	—	—
<b>CCTV Composite Coax with Unshielded Pair for Control or Power</b>										
Mini RG-59 UTP	25	Solid	579945	CM	95% Bare Copper	20.38	679948	CMP	95% Bare Copper	20.38
	20	7	—	—	Unshielded	—	—	—	Unshielded	—
RG-59 UTP	20	Solid	549945	CM	95% Bare Copper	20.38	649948	CMP	95% Bare Copper	20.38
	18	7	—	—	Unshielded	—	—	—	Unshielded	—
RG-6 UTP	18	Solid	539945	CM	95% Bare Copper	20.38	639948	CMP	95% Bare Copper	20.38
	18	7	—	—	Unshielded	—	—	—	Unshielded	—
<b>Pan/Tilt/Zoom BananaPeel Composite Coax</b>										
RG-59/U 1UTP	20	Solid	500PTZ	CMR	95% Bare Copper Braid	20.42	600PTZ	CMP	95% Bare Copper Braid	20.43
2/C	23	Solid	—	—	Unshielded	—	—	—	Unshielded	—
	18	7	—	—	Unshielded	—	—	—	Unshielded	—
RG-59/U 1STP	20	Solid	501PTZ	CMR	95% Bare Copper Braid	20.44	601PTZ	CMP	95% Bare Copper Braid	20.45
2/C	22	7	—	—	Beldfoil®	—	—	—	Beldfoil	—
	18	7	—	—	Unshielded	—	—	—	Unshielded	—
RG-59/U 1STP	20	Solid	502PTZ	CMR	95% Bare Copper Braid	20.46	602PTZ	CMP	95% Bare Copper Braid	20.47
2/C	18	7	—	—	Beldfoil	—	—	—	Beldfoil	—
	18	7	—	—	Unshielded	—	—	—	Unshielded	—
<b>CCTV Surveillance UTP and Composite Cables</b>										
2/C	16	19	5284US	CMR	Unshielded	20.51	6284US	CMP	Unshielded	20.52
2TP	24	Solid	—	—	Unshielded	—	—	—	Unshielded	—
2/C	16	19	5284UE	CMR	Unshielded	20.51	6284UE	CMP	Unshielded	20.52
2TP	23	Solid	—	—	Unshielded	—	—	—	Unshielded	—
2/C	16	19	5288US	CMR	Unshielded	20.51	6288US	CMP	Unshielded	20.52
4TP	23	Solid	—	—	Unshielded	—	—	—	Unshielded	—
4TP	24	Solid	1583A	CM	Unshielded	20.40/53	1585A	CMP	Unshielded	20.41/54
4TP	24	Solid	1500A	CM	Unshielded	20.40/53	1501A	CMP	Unshielded	20.41/54
4TP	24	Solid	1583R	CMR	Unshielded	20.40/53	—	—	—	—
2TP	24	Solid	1500R	CMR	Unshielded	20.40/53	—	—	—	—
4TP	23	Solid	7881A	CMR	Unshielded	20.40/53	7882A	CMP	Unshielded	20.41/54
<b>Access Control BananaPeel® Composite Cables</b>										
4/C	18	7	558AFS	CMR	Beldfoil	20.36	658AFS	CMP	Beldfoil	20.35
3TP	22	7	—	—	Beldfoil	—	—	—	Beldfoil	—
4/C	22	7	—	—	Beldfoil	—	—	—	Beldfoil	—
2/C	22	7	—	—	Beldfoil	—	—	—	Beldfoil	—
4/C	16	19	538AFS	CMR	Beldfoil	20.36	638AFS	CMP	Beldfoil	20.35
3TP	18	7	—	—	Beldfoil	—	—	—	Beldfoil	—
4/C	18	7	—	—	Beldfoil	—	—	—	Beldfoil	—
2/C	18	7	—	—	Beldfoil	—	—	—	Beldfoil	—

STP = Shielded Twisted Pair • TC = Tinned Copper • TP = Twisted Pair(s) • UTP = Unshielded Twisted Pair • /C = Conductor(s) (Multi-conductor)

# Pan/Tilt/Zoom Banana Peel® Composite

CCTV plus Audio or Power or Pan and Tilt CCTV Control Applications  
Riser-Rated



## Composite Coax, Pair and Multi-Conductors

CMR/CMG FT4 Rated

### Product Description

**(1) Coax:** 20 AWG solid bare copper conductor, gas-injected foam high-density polyethylene insulation, bare copper braid shield (95% coverage), Black PVC jacket.

**(1) Pair:** 18 AWG stranded (19x30) bare copper conductors, polyolefin insulation, Beldfoil® shield (100% coverage), Blue PVC jacket. Color code: White/Blue Stripe & Blue. Category 5e tested.

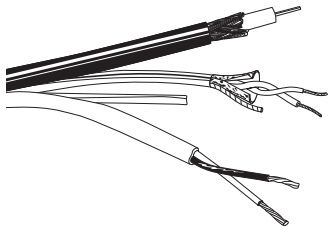
**(2) Conductors:** 18 AWG stranded (7x26) bare copper conductors, PVC insulation, White flame-retardant PVC jacket. Color code: Black & Red.

### Specifications

<b>Conductor</b>	Bare Copper
<b>Application Shielding</b>	
Video	Bare Copper Braid
Control	Aluminum/Polyester
Power	Unshielded
<b>Component Jackets</b>	PVC
<b>Overall Jacket</b>	None
<b>Approvals</b>	
NEC	CMR
CEC	CMG FT4
<b>NEC Articles</b>	800
<b>Voltage Rating</b>	300V
<b>Temperature Rating</b>	75°C

### Applications

- CCTV plus Control and Power
- Pan, Tilt and Zoom CCTV Control



Part No.	Component Descriptions	Insulation Material & Shielding	Component Nom. OD		Overall Nom. OD		Standard Lengths		Standard Unit Weight	
			Inch	mm	Inch	mm	Ft.	m	Lbs.	kg

### Composite (NEC CMR and CEC CMG FT4)

RG-59/U 20 AWG Coax • Cat. 5e 18 AWG Pair • 18 AWG Cond.										
<b>502PTZ</b> <small>NEW</small>	(1) Coax:	Gas-injected	.227	5.57	.451	11.5	500	152	50.0	22.7
	RG-59/U	Foam HDPE,					1000	305	94.0	42.6
	20 AWG	BC Braid								
	(solid)	Shield								
	BC	(95% coverage)								
	Cond.									
	(1) 1-Pair	Polyolefin,	.219	5.56						
	18 AWG	Beldfoil								
	(19x30)	Shield								
	BC	(100% coverage)								
	Cond.									
	(1) 2-Cond.	PVC,	.171	4.34						
	18 AWG	Unshielded								
	Stranded									
	(7x26)									
	BC									
	Cond.									

BC = Bare Copper • HDPE = High-density Polyethylene  
U.S. Patent 7,049,523

### Individual Cable Jacket Color Coding System

Jacket Color	Cable Type
Black	Coax: RG-59/U, 20 AWG, BC Braid Shield
Blue	1/P, 18 AWG, Beldfoil Shield
White	2/C, 18 AWG, Unshielded