

# Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

**BELDEN**  
SENDING ALL THE RIGHT SIGNALS

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



For more Information  
please call

1-800-Belden1



### General Description:

PTZ (CCTV+Control+Power) Cable, Riser-CMR, 1-RG59 20 AWG solid bare copper with foam polyolefin, 95% bare copper braid, 1-18 AWG stranded bare copper pair with polyolefin insulation and Beldfoil® shield, 2-18 AWG stranded bare copper conductors with polyolefin insulation, Siamese with PVC jacket

### 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)
75

#### Nom. Inductance:

Inductance (μH/ft)
0.097

#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.300

#### Nominal Velocity of Propagation:

VP (%)
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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

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#### Suitability

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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

###### 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

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#### Physical Characteristics (Overall)

##### Conductor

##### Outer Jacket

###### Outer Jacket Material:

Outer Jacket Material

Unjacketed

##### Overall Cable

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/Minor Axis: 4.500 in.

#### Applicable Specifications and Agency Compliance (Overall)

##### Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

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

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

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

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

##### Applicable Patents:

Country

[www.belden.com/p](http://www.belden.com/p)

#### 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.

#### 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

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