



**Product:** [502PTZ](#)

PTZ, RG-59 #20, #18-1pr, #18-2c, Shielded, CMR, Siamese

## Product 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

## Technical Specifications

### Product Overview

Suitable Applications:	Surveillance, CCTV Camera, PTZ (Pan-Tilt-Zoom)
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### Physical Characteristics (Overall)

#### Conductor

Element	AWG	Stranding	Material	Nominal Diameter	No. of Conductors	No. of Coax
Coax(es)	20	Solid	BC - Bare Copper	0.032 in		1
Pair1	18	19x30	BC - Bare Copper	0.044 in	2	
Pair2	18	7x26	BC - Bare Copper	0.047 in	2	

Conductor Count:	5
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#### Insulation

Element	Material	Nominal Diameter	Nominal Wall Thickness
Coax(es)	PE - Polyethylene (Foam)	0.145 in	
Pair1	PP - Polypropylene	0.08 in	
Pair2	PP - Polypropylene		0.0065 in

Table Notes:	Gas Injected
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#### Color Chart

Number	Color
Coax Core	White
Pair1	Blue & White/Blue
Pair2	Black & Red

#### Color Chart 4

Number	Color
Coax Jacket	Black
Pair1 Jacket	Blue
Pair2 Jacket	White

#### Inner Shield

Element	Type	Material	Material Trade Name	Coverage [%]
Coax(es)	Braid	Bare Copper (BC)		95%
Pair1	Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%
Pair2	No Shield			

#### Inner Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.227 in	0.030 in
PVC - Polyvinyl Chloride	0.219 in	0.028 in

PVC - Polyvinyl Chloride	0.158 in	0.020 in
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#### Outer Shield

Drainwire Construction n x D
7x28

#### Outer Jacket

Material	Nominal Diameter
Banana Peel (No Overall Jacket)	0.451 in
	0.219 in
	0.158 in
	0.451 in

## Electrical Characteristics

#### Conductor DCR

Element	Nominal Conductor DCR	Nominal Conductor DCR Conductor Resistance	Nominal Inner Shield DCR
Coax(es)	10 Ohm/1000ft	10 Ohm/1000ft	3.5 Ohm/1000ft
Pair1	6.5 Ohm/1000ft	6.5 Ohm/1000ft	
Pair2	6.5 Ohm/1000ft	6.5 Ohm/1000ft	

#### Capacitance

Element	Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
Coax(es)		16.3 pF/ft
Pair1	26 pF/ft	44 pF/ft
Pair2	21.5 pF/ft	

#### Impedance

Element	Nominal Characteristic Impedance
Coax(es)	75 Ohm

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.3 dB/100ft
5 MHz	0.65 dB/100ft
10 MHz	0.9 dB/100ft
50 MHz	1.9 dB/100ft
100 MHz	2.6 dB/100ft
200 MHz	3.6 dB/100ft
400 MHz	5 dB/100ft
700 MHz	7 dB/100ft
900 MHz	8 dB/100ft
1000 MHz	8.5 dB/100ft

#### Delay

Element	Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
Coax(es)	83 ns/100m	1.22 ns/ft	83%

#### Current

Element	Max. Recommended Current [A]
Coax(es)	
Pair1	5 Amps per Conductor at 25°C
Pair2	

#### Voltage

UL Voltage Rating
300 V RMS

## Temperature Range

Installation Temperature Range:	0°C To +75°C
UL Temp Rating:	75°C
Operating Temperature Range:	-10°C To +75°C

Separation Temp Range:	0°C To +75°C
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## Mechanical Characteristics

Bulk Cable Weight:	74 lbs/1000ft
Max. Pull Tension:	140 lbs

## Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CMR
CPR Euroclass:	Fca
RG Type:	59
Other Specification:	Video coax: RG 59/U

## Applicable Environmental and Other Programs

Environmental Space:	Indoor - Riser
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Indoor:	Yes
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## Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	602PTZ

## Related Part Numbers

### Variants

Item #	Color	UPC
502PTZ 0001000	Black, Blue, White	612825155850
502PTZ 000500	Black, Blue, White	612825155867

Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/patents">https://www.belden.com/patents</a> .
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## Product Notes

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.
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## History

Update and Revision:	Revision Number: 0.357 Revision Date: 05-11-2022
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