



**Product:** [601PTZ](#)

PTZ, RG-59 #20, #22-1pr, #18-2c, Shielded, CMP, Siamese

### Product Description

PTZ (CCTV + Control + Power) Cable, Plenum-CMP, 1-RG59 20 AWG solid bare copper with foam PFA, 95% bare copper braid, 1-22 AWG stranded bare copper pair with FEP insulation and Beldfoil® shield, 2-18 AWG stranded bare copper conductors with Flamarrest® insulation, Siamese with Flamarrest® jacket

### Technical Specifications

#### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | Surveillance, CCTV Camera, PTZ (Pan-Tilt-Zoom) |
|------------------------|--|

#### 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    | 22  | 7x30      | BC - Bare Copper | 0.03 in          | 2                 |             |
| Pair2    | 18  | 7x26      | BC - Bare Copper | 0.047 in         | 2                 |             |

|                  |   |
|------------------|---|
| Conductor Count: | 5 |
|------------------|---|

##### Insulation

| Element  | Material                                    | Material Trade Name | Nominal Diameter | Nominal Wall Thickness |
|----------|---|---------------------|------------------|------------------------|
| Coax(es) | FEP - Fluorinated Ethylene Propylene (Foam) |                     | 0.133 in         |                        |
| Pair1    | FEP - Fluorinated Ethylene Propylene        |                     | 0.042 in         |                        |
| Pair2    | PVC - Polyvinyl Chloride                    | Flamarrest®         |                  | 0.009 in               |

##### Color Chart

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

##### 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                 | Material Trade Name | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|---------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | Flamarrest®         | 0.193 in         | 0.016 in               |
| PVC - Polyvinyl Chloride | Flamarrest®         | 0.116 in         | 0.014 in               |
| PVC - Polyvinyl Chloride | Flamarrest®         | 0.158 in         | 0.015 in               |

##### Outer Shield

| Drainwire Construction n x D |
|------------------------------|
| 7x30                         |

## Outer Jacket

| Material                        | Nominal Diameter |
|---------------------------------|------------------|
| Banana Peel (No Overall Jacket) | 0.351 in         |
|                                 | 0.116 in         |
|                                 | 0.158 in         |
| No Jacket                       | 0.351 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                              | 2.5 Ohm/1000ft           |
| Pair1    | 15 Ohm/1000ft         | 15 Ohm/1000ft                              | 12 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) |   | 16.1 pF/ft                           |
| Pair1    | 35 pF/ft                                | 67 pF/ft                             |
| Pair2    |   |                                      |

### Impedance

| Element  | Nominal Characteristic Impedance |
|----------|----------------------------------|
| Coax(es) | 75 Ohm                           |

### High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz           | .29 dB/100ft        |
| 5 MHz           | 0.7 dB/100ft        |
| 10 MHz          | 1.1 dB/100ft        |
| 50 MHz          | 1.8 dB/100ft        |
| 100 MHz         | 2.7 dB/100ft        |
| 200 MHz         | 3.9 dB/100ft        |
| 400 MHz         | 5.9 dB/100ft        |
| 700 MHz         | 8.5 dB/100ft        |
| 900 MHz         | 10 dB/100ft         |
| 1000 MHz        | 10.7 dB/100ft       |

### Delay

| Element  | Max. Delay Skew | Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|----------|-----------------|---------------|--|
| Coax(es) | 84 ns/100m      | 1.21 ns/ft    | 84%                                      |

### Current

| Element  | Max. Recommended Current [A]   |
|----------|--------------------------------|
| Coax(es) |                                |
| Pair1    | 2.4 Amps per Conductor at 25°C |
| Pair2    | 5 Amps per Conductor at 25°C   |

### 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   |

## Mechanical Characteristics

|                    |               |
|--------------------|---------------|
| Bulk Cable Weight: | 56 lbs/1000ft |
| Max. Pull Tension: | 130 lbs       |

## Standards

|                      |                     |
|----------------------|---------------------|
| NEC Articles:        | Article 800         |
| NEC/(UL) Compliance: | CMP                 |
| RG Type:             | 59                  |
| Other Specification: | Video coax: RG 59/U |

## Applicable Environmental and Other Programs

|  |                 |
|--|-----------------|
| Environmental Space:                         | Indoor - Plenum |
| 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 |
|-----------------------|-----|

## Flammability, LSOH, Toxicity Testing

|                    |           |
|--------------------|-----------|
| UL Flammability:   | NFPA 262  |
| UL voltage rating: | 300 V RMS |

## Plenum/Non-Plenum

|               |     |
|---------------|-----|
| Plenum (Y/N): | Yes |
|---------------|-----|

## Related Part Numbers

|                    |        |
|--------------------|--------|
| Non-Plenum Number: | 501PTZ |
|--------------------|--------|

## Variants

| Item #         | Color              | UPC          |
|----------------|--------------------|--------------|
| 601PTZ 0001000 | Black, Blue, White | 612825171850 |
| 601PTZ 000500  | Black, Blue, White | 612825171867 |

|         |  |
|---------|--|
| 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> . |
|---------|--|

## Product Notes

|        |  |
|--------|--|
| Notes: | RG59 CCTV + 1 STP 22 AWG Control Grade + 2C 18 AWG CMP. 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. |
|--------|--|

## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.353 Revision Date: 03-27-2024 |
|----------------------|--|

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.