# Detailed Specifications & Technical Data

**ENGLISH MEASUREMENT VERSION**

**558GFS Composite - Lock Power, Card Reader, Door Contact, REX Applications**

**No longer Available**
**1-800-BELDEN1**

For more Information please call

1-800-Belden1

## Description:

6 Pairs - 22 AWG stranded (7x30) BC conductors, F-R PVC insul., Beldfoil® shield, drain wire, F-R PVC jacket w/ripcord; 6 conductors - 22 & 18 AWG stranded BC conductors, F-R PVC insul., Beldfoil® shield, drain wire, F-R PVC jacket w/ripcord.

## Usage (Overall)

**Suitable Applications:** Access Control

## Twisted Pair

### Physical Characteristics

#### Conductor

**AWG:**

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---|---|---|---|---|
| 6 | 22 | 7x30 | BC - Bare Copper | 0.030 |

#### Insulation

**Insulation Material:**

| Insulation Material | Dia. (in.) |
|---|---|
| F-R PVC - Flame Retardant Polyvinyl Chloride | 0.049 |

**Twisted Pair Color Code Chart:**

| Number | Color | Description |
|---|---|---|
| 1 | Black and Red | Card Reader 1 Pair 1 |
| 2 | White and Green | Card Reader 1 Pair 2 |
| 3 | Orange and Brown | Card Reader 1 Pair 3 |
| 4 | Black and Red | Card Reader 2 Pair 1 |
| 5 | White and Green | Card Reader 2 Pair 2 |
| 6 | Orange and Brown | Card Reader 2 Pair 3 |

#### 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 |
|---|---|---|
| 24 | 7x32 | TC - Tinned Copper |

#### Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material |
|---|
| F-R PVC - Flame Retardant Polyvinyl Chloride |

**Outer Jacket Diameter:**

| Nom. Dia. (in.) |
|---|
| 0.233 |

**Outer Jacket Ripcord:** Yes

**Outer Jacket Color Code Chart:**

| Number | Color | Description |
|---|---|---|
| 1 | Yellow | Card Reader 1 |

| | | |
|---|---|---|
| 2 | Orange | Card Reader 2 |

## 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) |
|---|
| 56.000 |

**Nom. Capacitance Conductor to Conductor:**

| Capacitance (pF/ft) |
|---|
| 31.000 |

**Nom. Conductor DC Resistance:**

| DCR @ 20°C (Ohm/1000 ft) |
|---|
| 16.300 |

**Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C:** 13.900 Ohm/1000 ft

**Max. Operating Voltage - Other:**

| Voltage |
|---|
| 300 V RMS |

**Max. Recommended Current:**

| Description | Current |
|---|---|
| Card Reader | 2 |

# Multi Conductor

## Physical Characteristics

### Conductor

**AWG:**

| # Conductors | AWG | Stranding | Conductor Material | Dia. (in.) |
|---|---|---|---|---|
| 2 | 22 | 7x30 | BC - Bare Copper | 0.030 |
| 4 | 18 | 7x26 | BC - Bare Copper | 0.047 |

### Insulation

**Insulation Material:**

| Insulation Material | Dia. (in.) | AWG |
|---|---|---|
| F-R PVC - Flame Retardant Polyvinyl Chloride | 0.049 | 22 |
| F-R PVC - Flame Retardant Polyvinyl Chloride | 0.066 | 18 |

**Insulation Color Code Chart:**

| Number | Color | Description |
|---|---|---|
| 1 | Black | Door Contact 1 |
| 2 | Red | Door Contact 2 |
| 3 | Black | Lock/Power 1 |
| 4 | Red | Lock/Power 2 |
| 5 | White | Lock/Power 3 |
| 6 | Green | Lock/Power 4 |

### Outer Shield

**Outer Shield Material:**

| AWG | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) | Description |
|---|---|---|---|---|---|
| 22 | Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100.000 | Door Contact |
| 18 | Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100.000 | Lock/Power |

**Outer Shield Drain Wire AWG:**

| Component | AWG | Stranding | Drain Wire Conductor Material |
|---|---|---|---|
| Door Contact | 24 | 7x32 | TC - Tinned Copper |
| Lock/Power | 20 | 7x28 | TC - Tinned Copper |

## Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material |
|---|
| F-R PVC - Flame Retardant Polyvinyl Chloride |

**Outer Jacket Diameter:**

| Component # | Nom. Dia. (in.) |
|---|---|
| Door Contact | 0.140 |
| Lock/Power | 0.202 |

**Outer Jacket Ripcord:** Yes

**Outer Jacket Color Code Chart:**

| Number | Color | Description |
|---|---|---|
| 1 | White | Door Contact |
| 2 | Gray | Lock/Power |

## 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:**

| Description | Freq. (MHz) | Capacitance (pF/ft) |
|---|---|---|
| Door Contact | 1.000 | 83.000 |
| Lock/Power | 1.000 | 68.000 |

**Nom. Capacitance Conductor to Conductor:**

| Description | Freq. (MHz) | Capacitance (pF/ft) |
|---|---|---|
| Door Contact | 1.000 | 46.000 |
| Lock Power | 1.000 | 38.000 |

**Nom. Conductor DC Resistance:**

| Description | DCR @ 20°C (Ohm/1000 ft) |
|---|---|
| Door Contact | 16.400 |
| Lock/Power | 6.500 |

**Nom. Inner Shield DC Resistance:**

| Description | DCR @ 20°C (Ohm/1000 ft) |
|---|---|
| Door Contact | 16.100 |
| Lock/Power | 7.300 |

**Max. Operating Voltage - Other:**

| Voltage |
|---|
| 300 V RMS |

**Max. Recommended Current:**

| Description | Current |
|---|---|
| Door Contact | 2.2 Amps |
| Rex/Spare | 2.2 Amps |
| Lock/Power | 4.0 Amps |

## 558GFS Composite - Lock Power, Card Reader, Door Contact, REX Applications

## Physical Characteristics (Overall)

### Conductor

### Outer Jacket

**Outer Jacket Material:**

| Outer Jacket Material |
|---|
| Unjacketed |

### Overall Cable

| | |
|---|---|
| **Overall Nominal Diameter:** | 0.458 in. |

## Mechanical Characteristics (Overall)

| | |
|---|---|
| **Operating Temperature Range:** | 0°C To +75°C |
| **Bulk Cable Weight:** | 95 lbs/1000 ft. |
| **Max. Recommended Pulling Tension:** | 240 lbs. |
| **Min. Bend Radius (Install)/Minor Axis:** | 4.750 in. |

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

| | |
|---|---|
| **NEC/(UL) Specification:** | CMR |
| **CEC/C(UL) Specification:** | CMG |
| **EU Directive 2000/53/EC (ELV):** | Yes |
| **EU Directive 2002/95/EC (RoHS):** | Yes |
| **EU RoHS Compliance Date (mm/dd/yyyy):** | 04/02/2007 |
| **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:** | 658GFS |

## Notes (Overall)

**Notes:** 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.

## Related Documents:

No related documents are available for this product

## Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---|---|---|---|---|---|

Revision Number: 0 Revision Date: 02-25-2011

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