

658AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications



For more Information
please call

1-800-Belden1



General Description:

Access Control Cable, Plenum-CMP, 3-22 AWG pairs, 4-18 AWG conductors, 4-22 AWG conductors, 2-22 AWG conductors, All conductors stranded bare copper with Flamarrest® insulation, Each cable has overall Beldfoil® shield and Flamarrest® jacket, Overall Flamarrest® jacket

Usage (Overall)

Suitable Applications: Access Control

Twisted Pair

Physical Characteristics

Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---------|-----|-----------|--------------------|------------|
| 3 | 22 | 7x30 | BC - Bare Copper | 0.030 |

Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material | Dia. (in.) |
|-----------------------|---------------------------------------|------------|
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride | 0.047 |

Twisted Pair Color Code Chart:

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

Individual Shield

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 Trade Name | Outer Jacket Material |
|-------------------------|---------------------------------------|
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.216 |

Outer Jacket Color Code Chart:

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

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

| Capacitance (pF/ft) |
|---------------------|
| 60.000 |

Nom. Capacitance Conductor to Conductor:

| Capacitance (pF/ft) |
|---------------------|
| 33.000 |

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

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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 | 22 | 7x30 | BC - Bare Copper | 0.030 |
| 4 | 18 | 7x26 | BC - Bare Copper | 0.047 |

Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material | Dia. (in.) | AWG |
|-----------------------|---------------------------------------|------------|-----|
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride | 0.047 | 22 |
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride | 0.064 | 18 |

Insulation Color Code Chart:

| Number | Color | Description |
|--------|-------|----------------|
| 1 | Black | Door Contact 1 |
| 2 | Red | Door Contact 2 |
| 3 | Black | Rex/Spare 1 |
| 4 | Red | Rex/Spare 2 |
| 5 | White | Rex/Spare 3 |
| 6 | Green | Rex/Spare 4 |
| 7 | Black | Lock/Power 1 |
| 8 | Red | Lock/Power 2 |
| 9 | White | Lock/Power 3 |
| 10 | Green | Lock/Power 4 |

Individual Shield

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 |
| 22 | Beldfoil® | Tape | Aluminum Foil-Polyester Tape | 100.000 | Rex/Spare |
| 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 |
| Rex/Spare | 24 | (7x32) | TC - Tinned Copper |
| Lock/Power | 24 | (7x32) | TC - Tinned Copper |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Trade Name | Outer Jacket Material |
|-------------------------|---------------------------------------|
| Flamarrest® | LS PVC - Low Smoke Polyvinyl Chloride |

Outer Jacket Diameter:

| Component # | Nom. Dia. (in.) |
|--------------|-----------------|
| Door Contact | 0.128 |
| Rex/Spare | 0.147 |
| Lock/Power | 0.188 |

Outer Jacket Ripcord:

Yes

Outer Jacket Color Code Chart:

| Number | Color | Description |
|--------|-------|--------------|
| 1 | White | Door Contact |
| 2 | Blue | Rex/Spare |
| 3 | Gray | Lock/Power |

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

| Description | Freq. (MHz) | Capacitance (pF/ft) |
|--------------|-------------|---------------------|
| Door Contact | 1.000 | 99.000 |
| Rex/Spare | 1.000 | 59.000 |
| Lock Power | 1.000 | 76.000 |

Nom. Capacitance Conductor to Conductor:

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| Description | Freq. (MHz) | Capacitance (pF/ft) |
|--------------|-------------|---------------------|
| Door Contact | 1.000 | 55.000 |
| Rex/Spare | 1.000 | 33.000 |
| Lock Power | 1.000 | 42.000 |

Nom. Conductor DC Resistance:

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

Nom. Inner Shield DC Resistance:

| Description | DCR @ 20°C (Ohm/1000 ft) |
|--------------|--------------------------|
| Door Contact | 15.300 |
| Rex/Spare | 15.300 |
| Lock Power | 7.300 |

Max. Operating Voltage - UL:

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

Max. Recommended Current:

| Description | Current |
|--------------|----------|
| Door Contact | 2.2 Amps |
| Rex/Spare | 2.2 Amps |
| Lock Power | 4 Amps |

Physical Characteristics (Overall)

Conductor

Outer Jacket

Outer Jacket Material:

| Outer Jacket Trade Name |
|-------------------------|
| Flamarrest® |

Overall Cable

Overall Nominal Diameter: 0.463 in.

Mechanical Characteristics (Overall)

| | |
|-----------------------------------|------------------|
| Operating Temperature Range: | 0°C To +75°C |
| Bulk Cable Weight: | 108 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 200 lbs. |
| Min. Bend Radius/Minor Axis: | 4.750 in. |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|------------|
| NEC(UL) Specification: | CMP |
| CEC/C(UL) Specification: | CMP |
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU CE Mark: | Yes |
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2002/95/EC (RoHS): | Yes |
| EU RoHS Compliance Date (mm/dd/yyyy): | 05/09/2007 |
| EU Directive 2002/96/EC (WEEE): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |
| CA Prop 65 (CJ for Wire & Cable): | Yes |
| MIL Order #39 (China RoHS): | Yes |

Flame Test

UL Flame Test: NFPA 262 Plenum Flame Test (UL910)(FT6)

Suitability

Suitability - Indoor: Yes

Plenum/Non-Plenum

Plenum (Y/N): Yes

Non-Plenum Number: 558AFJ

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Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|----------------|----------|-------------|--------|-------|--------------------------------|
| 658AFJ 0041000 | 1,000 EA | 115.000 LB | YELLOW | | 4C18+4C22+3P22+2C22 SHLD FLMST |

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