



**Product:** [5020FJ](#)

Fire Alarm, #12-2c BC, Shielded, FPL

## Product Description

Fire Alarm Cable, Rated-FPL, 2-12 AWG solid bare copper conductors with foam polyolefin insulation, overall Beldfoil® shield, PVC jacket with ripcord

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | Fire Alarm, Addressable Systems, Circuits: Audio, Control, Initiating, Notification, Noisy Environment |
|------------------------|--|

### Physical Characteristics (Overall)

#### Conductor

| AWG | Stranding | Material         | No. of Conductors |
|-----|-----------|------------------|-------------------|
| 12  | Solid     | BC - Bare Copper | 2                 |

Conductor Count: 2

#### Insulation

| Material                 | Material Trade Name | Nominal Wall Thickness |
|--------------------------|---------------------|------------------------|
| PE - Polyethylene (Foam) | Datalene®           | 0.02 in                |

#### Color Chart

| Number | Color |
|--------|-------|
| 1      | Black |
| 2      | Red   |

#### Outer Shield Material

| Type | Material                | Material Trade Name | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Construction n x D |
|------|-------------------------|---------------------|--------------|--------------------|---------------|------------------------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil®           | 100%         | TC - Tinned Copper | 20            | Solid                        |

#### Outer Jacket Material

| Material                 | Nominal Diameter | Nominal Wall Thickness | Ripcord |
|--------------------------|------------------|------------------------|---------|
| PVC - Polyvinyl Chloride | 0.317 in         | 0.033 in               | Yes     |

### Construction and Dimensions

#### Cabling

| Twists       |
|--------------|
| 3.4 twist/ft |

### Electrical Characteristics

#### Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 1.5 Ohm/1000ft        | 6.9 Ohm/1000ft           |

#### Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
|---|---|

|          |            |
|----------|------------|
| 36 pF/ft | 64.8 pF/ft |
|----------|------------|

#### Inductance

|                           |
|---------------------------|
| <b>Nominal Inductance</b> |
| 0.16 µH/ft                |

#### High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSACRF (PSELFEXT) [dB] | Min. SRL (Structural Return Loss) | Min. TCL [dB] |
|-----------------|-----------------------------------|-----------------------------|-----------------------------------|---------------|
| 24.576 MHz      | 24.6 dB/100m                      | 24.8 dB                     | 24.7 dB                           | 24.6 dB       |

#### Current

|                                     |
|-------------------------------------|
| <b>Max. Recommended Current [A]</b> |
| 10 Amps per Conductor at 25°C       |

#### Voltage

|                          |
|--------------------------|
| <b>UL Voltage Rating</b> |
| 300 V RMS                |

#### Temperature Range

|                       |                |
|-----------------------|----------------|
| UL Temp Rating:       | 75°C           |
| Operating Temp Range: | -20°C To +75°C |

#### Mechanical Characteristics

|                             |                 |
|-----------------------------|-----------------|
| Bulk Cable Weight:          | 64.4 lbs/1000ft |
| Max. Pull Tension:          | 172 lbs         |
| Min Bend Radius/Minor Axis: | 3.25 in         |

#### Standards

|                      |             |
|----------------------|-------------|
| NEC Articles:        | Article 760 |
| NEC/(UL) Compliance: | FPL         |

#### Applicable Environmental and Other Programs

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):        | Yes                           |
| EU Directive 2003/96/EC (BFR):        | Yes                           |
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01                    |
| MII Order #39 (China RoHS):           | Yes                           |

#### Suitability

|                       |     |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

#### Flammability, LSOH, Toxicity Testing

|                    |                   |
|--------------------|-------------------|
| UL Flammability:   | UL1685 UL Loading |
| UL voltage rating: | 300 V RMS         |

#### Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

#### Part Number

#### Variants

| Item #         | Color | UPC          |
|----------------|-------|--------------|
| 5020FJ 0021000 | Red   | 612825155874 |

#### History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.251 Revision Date: 09-30-2020 |
|----------------------|--|

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