

# Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

**BELDEN**  
SENDING ALL THE RIGHT SIGNALS

## 5002FM Multi-Conductor - Commercial Applications



For more Information  
please call

1-800-Belden1



### General Description:

12 AWG stranded (7x20) bare copper conductors, ceramifiable silicone insulation, Beldfoil® shield, FRPE (low smoke non-halogen) jacket, sequential footage marking every two feet.

### Usage (Overall)

#### Suitable Applications:

Survivability, Survivability from Attach by Fire, Fire Alarm Circuit Integrity, CI, Survivability by NFPA72, Sim to MI, Similar to Mineral Insulated, FPLR-CI, Emergency Circuits, Notification Devices, Fire Pumps, 2 hour fire rating

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
4	12	7x20	BC - Bare Copper

Total Number of Conductors:

4

#### Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
Silicone Rubber	.034

#### Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Polyester Tape-Aluminum Foil	100

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
14	7x22	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
FRPE - Flame Retardant Polyethylene	.045

### Overall Cable

Overall Cabling Lay Length & Direction:

Length (in.)	Twists (twist/ft)
6.0	2.0

Overall Cabling Color Code Chart:

Number	Color
1	Black#1
2	Black#2
3	Black#3
4	Black#4

Overall Nominal Diameter:

0.484 in.

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +105°C

UL Temperature Rating: 105°C

Bulk Cable Weight: 182 lbs/1000 ft.

Max. Recommended Pulling Tension: 347.200 lbs.

Min. Bend Radius/Minor Axis: 4.800 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:

FPLR-CI

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NEC Articles:	760
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):	01/01/2005
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

### Flame Test

UL Flame Test:	UL1666 Riser, UL2196 Two Hour Circuit Integrity
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### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Electrical Characteristics (Overall)

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
40

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
1.6

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
2.5

#### Max. Operating Voltage - UL:

Voltage	Description
300 V RMS	FPLR only applications
41 V RMS	CI applications

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
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Revision Number: 1 Revision Date: 07-18-2011

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