

## 5102FM Multi-Conductor - Commercial Applications



For more Information  
please call

1-800-Belden1

**Description:**

14 AWG stranded (7x22) 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	14 7x22	BC - Bare Copper

**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
16 7x24	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 (ft.)
5.25	2.25

**Overall Cabling Color Code Chart:**

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

**Overall Nominal Diameter:**

0.442 in.

**Mechanical Characteristics (Overall)****Operating Temperature Range:**

-20°C To +105°C

**UL Temperature Rating:**

105°C

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Bulk Cable Weight:	139 lbs/1000 ft.
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Max. Recommended Pulling Tension:	218.400 lbs.
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Min. Bend Radius (Install)/Minor Axis:	4.400 in.
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## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

NEC/(UL) Specification:	FPLR-CI
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NEC Articles:	760
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EU CE Mark:	Yes
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EU Directive 2000/53/EC (ELV):	Yes
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EU Directive 2002/95/EC (RoHS):	Yes
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EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2005
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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## 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)
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33
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## Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
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2.6
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## Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
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4
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## Max. Operating Voltage - UL:

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

## Related Documents:

No related documents are available for this product

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
5102FM 0021000	1,000 FT	146.000 LB	RED	C	4 #14 SIL FS FRNHPO

## Notes:

C = CRATE REEL PUT-UP.

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