



# Product: 5020FN

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

# **Product Description**

Fire Alarm Cable, Rated-NPLF, 2-12 AWG solid bare copper conductors with PVC/nylon insulation, overall Beldfoil® shield, PVC jacket with ripcord

## **Technical Specifications**

## **Product Overview**

Awg       Stranding       Material       No. of Conductors         12       Solid       BC - Bare Copper       2         Conductor Count:       2         nsulation               Material             Nominal Wall Thickness          PVC/Nylon - Polyvinyl Chloride/Nylon Skin       0.021 in         Color Chart           Number       Color         1       Black         2       Red         Duter Shield Material       Material Trade Name         Coverage [%]       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Bedfoll®       100%       TC - Tinned Copper       20       Solid         Duter Jacket Material       Nominal Diameter       Nominal Wall Thickness       Ripcord       PVC - Polyvinyl Chloride       0.042 in       Yes         Construction and Dimensions <ul> <li>Construction Constructions</li> <li>Solid</li> <li>Solid</li> <li>Conductor DCR</li> <li>Nominal Outer Shield DCR</li> <li>Solom/10000t</li> <li>Solom/1000t</li> <li>Solom/10</li></ul>						
12       Solid       BC - Bare Copper       2         Conductor Count:       2         Insulation       Material       Nominal Wall Thickness         PVC/Nylon - Polyvinyl Chloride/Nylon Skin       0.021 in         Other Skind Material         Number       Color         1       Black         2       Red         Outer Shield Material       Material Trade Name       Coverage (%)       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoll®       100%       TC - Tinned Copper       20       Solid         Other Skield Material         Type       Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes       Solid         Construction and Dimensions         Electrical Characteristics         Conductor DCR         Naminal Conductor DCR       Nominal Outer Shield DCR       Nominal Conductor DCR       Nominal Cuer Shield DCR         13 80 hm/1000t       6.9 0hm/100tt       6.9 0hm/100tt       Solid       Solid       Solid	Suitable Applications	÷	Fire Alarm, No	n-Power Limited, Circu	its: Audio, Control	Initiating, Notification, Noisy Envir
Awd       Stranding       Material       No. of Conductors         12       Solid       BC - Bare Copper       2         Conductor Count       2	hysical Chara	cteristics (Ov	verall)			
Awd       Stranding       Material       No. of Conductors         12       Solid       BC - Bare Copper       2         Conductor Count       2						
12       Solid       BC - Bare Copper       2         Conductor Count:       2         Insulation       Material       Nominal Wall Thickness         PVC/Nylon - Polyvinyl Chloride/Nylon Skin       0.021 in         Other Skind Material         Number       Color         1       Black         2       Red         Outer Shield Material       Material Trade Name       Coverage (%)       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoll®       100%       TC - Tinned Copper       20       Solid         Other Skield Material         Type       Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes       Solid         Construction and Dimensions         Electrical Characteristics         Conductor DCR         Naminal Conductor DCR       Nominal Outer Shield DCR       Nominal Conductor DCR       Nominal Cuer Shield DCR         13 80 hm/1000t       6.9 0hm/100tt       6.9 0hm/100tt       Solid       Solid       Solid						
Conductor Count:       2         insulation       Material Nominal Wall Thickness         PVC/Nyton - Polyvinyl Chloride/Nyton Skin       0.021 in         Color Chart       Number Color         Number Color       Black         2       Red         Outer Shield Material       Material Trade Name         Type       Material Trade Name       Coverage [%]       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoil®       100%       T C - Tinned Copper       20       Solid         Outer Jacket Material         Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes         Construction and Dimensions         Construction and Dimensions         Construction Characteristics         Conductor DCR         Nominal Conductor DCR       Nominal Outer Shield DCR         Nominal C						
nsulation          Material       Nominal Wall Thickness         PVC/Nylon - Polyvinyl Chloride/Nylon Skin       0.021 in         Color Chart       Number       Color         Number       Color         1       Black         2       Red         Outer Shield Material       Material Trade Namo       Coverage [%]       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoli®       100%       TC - Tinned Copper       20       Solid         Outer Jacket Material       Material I Trade Namo       Coverage [%]       Drainwire Material       Drainwire Construction n x D         Solid       100%       TC - Tinned Copper       20       Solid       Solid         Outer Jacket Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes         Construction and Dimensions       Electrical Characteristics       Solid       Solid         Conductor DCR       Nominal Outer Shield DCR       6.9 Ohm/1000ft       6.9 Ohm/1000ft						
Material       Nominal Wall Thickness         PVC/Nylon - Polyvinyl Chloride/Nylon Skin       0.021 in         Color Chart       Number       Color         Number       Color       Black       Red         Outer Shield Material       Material Trade Name       Coverage [%]       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoli@       100%       TC - Tinned Copper       20       Solid         Outer Jacket Material       Nominal Diameter       Nominal Wall Thickness       Ripcord       PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes         Construction and Dimensions       Solid       <			2			
Material       Nominal Diameter       Nominal Vall       Rel         Outer Shield Material         Tape       Alum / Poly       Beldfoll®       100%       TC - Tinned Copper       20       Solid         Outer Shield Material         Tape       Alum / Poly       Beldfoll®       100%       TC - Tinned Copper       20       Solid         Outer Jacket Material         Material       Nominal Diameter       Nominal Vall Thickness       Ripcord         PVC - Polyvinyl Chlorde       0.337 in       0.042 in       Yes         Construction and Dimensions         Electrical Characteristics         Conductor DCR         Nominal Conductor DCR       Nominal Outer Shield DCR         1.58 Ohm/1000ft       6.9 Ohm/1000ft       6.9 Ohm/1000ft			No	Thisburger		
Color Chart          Number       Color         1       Black         2       Red         Outer Shield Material         Tape       Material         Material       Material Trade Name       Coverage [%]       Drainwire Material       Drainwire Construction n x D         Tape       Alum / Poly       Beldfoil®       100%       TC - Tinned Copper       20       Solid         Outer Jacket Material         Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes         Construction and Dimensions         Electrical Characteristics         Conductor DCR         Nominal Conductor DCR       Nominal Outer Shield DCR       6.9 Ohm/1000ft				Thickness		
Number Color   1 Black   2 Red    Puter Shield Material   Type Material Material Trade Name Coverage [%] Drainwire Material Drainwire AWG Drainwire Construction n x D   Tape Alum / Poly Beldfoll® 100% TC - Tinned Copper 20 Solid   Puter Jacket Material   Material Nominal Diameter Nominal Wall Thickness Ripcord   PVC - Polyvinyl Chloride 0.337 in 0.042 in Yes   Construction and Dimensions   Stabling   Electrical Characteristics conductor DCR Nominal Outer Shield DCR 1.58 Ohm/1000ft 6.9 Ohm/1000ft						
Tape Alum / Poly Beldfoil® 100% TC - Tinned Copper 20 Solid   Solid   Duter Jacket Material Nominal Diameter Nominal Wall Thickness Ripcord   PVC - Polyvinyl Chloride 0.337 in 0.042 in Yes   Construction and Dimensions   Twists 3.74 twist/ft   Electrical Characteristics   Sonductor DCR Nominal Outer Sheld DCR   1.58 Ohm/1000ft 6.9 Ohm/1000ft	2 Red	1				
Nominal Diameter Nominal Wall Thickness Ripcord   PVC - Polyvinyl Chloride 0.337 in 0.042 in Yes   Construction and Dimensions Cabling   Twists   3.74 twist/ft   Electrical Characteristics Conductor DCR   Nominal Outer Shield DCR   1.58 Ohm/1000ft 6.9 Ohm/1000ft	Type Material I	Material Trade Na	ame Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Material       Nominal Diameter       Nominal Wall Thickness       Ripcord         PVC - Polyvinyl Chloride       0.337 in       0.042 in       Yes         Construction and Dimensions       Ves         Twists       3.74 twist/ft         Electrical Characteristics       Ves         Conductor DCR       Nominal Outer Shield DCR         1.58 Ohm/1000ft       6.9 Ohm/1000ft						
PVC - Polyvinyl Chloride 0.337 in 0.042 in Yes    Construction and Dimensions   Cabling Twists 3.74 twist/ft    Electrical Characteristics  Conductor DCR   Nominal Conductor DCR   Nominal Conductor DCR   1.58 Ohm/1000ft    6.9 Ohm/1000ft	Tape Alum / Poly	Beldfoil®	100%	TC - Tinned Copper	20	Solid
Construction and Dimensions Cabling Twists 3.74 twist/ft Electrical Characteristics Conductor DCR Nominal Conductor DCR 1.58 Ohm/1000ft 6.9 Ohm/1000ft			100%	TC - Tinned Copper	20	Solid
Cabling Twists 3.74 twist/ft Electrical Characteristics Conductor DCR Nominal Conductor DCR 1.58 Ohm/1000ft 6.9 Ohm/1000ft	uter Jacket Materia	1			_	Solid
Cabling Twists 3.74 twist/ft Electrical Characteristics Conductor DCR Nominal Conductor DCR 1.58 Ohm/1000ft 6.9 Ohm/1000ft	uter Jacket Materia Material	I Nominal Dia	ameter Nominal W	all Thickness Ripco	_	Solid
Twists         3.74 twist/ft         Electrical Characteristics         Conductor DCR         Nominal Conductor DCR         1.58 Ohm/1000ft         6.9 Ohm/1000ft	uter Jacket Materia Material PVC - Polyvinyl Chlo	Nominal Dia ride 0.337 in	ameter Nominal W 0.042 in	all Thickness Ripco	_	Solid
3.74 twist/ft       Electrical Characteristics       Conductor DCR       Nominal Conductor DCR       1.58 Ohm/1000ft       6.9 Ohm/1000ft	uter Jacket Materia Material PVC - Polyvinyl Chlo	Nominal Dia ride 0.337 in	ameter Nominal W 0.042 in	all Thickness Ripco	_	Solid
Electrical Characteristics Conductor DCR Nominal Conductor DCR 1.58 Ohm/1000ft 6.9 Ohm/1000ft	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction al	Nominal Dia ride 0.337 in	ameter Nominal W 0.042 in	all Thickness Ripco	_	Solid
Nominal Conductor DCR         Nominal Outer Shield DCR           1.58 Ohm/1000ft         6.9 Ohm/1000ft	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction at abling	Nominal Dia ride 0.337 in	ameter Nominal W 0.042 in	all Thickness Ripco	_	Solid
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1.58 Ohm/1000ft 6.9 Ohm/1000ft	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction al abling Twists 3.74 twist/ft	Nominal Dia ride 0.337 in nd Dimension	ameter Nominal W 0.042 in	all Thickness Ripco	_	Solid
	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction al abling Twists 3.74 twist/ft Electrical Chara onductor DCR	Nominal Dia ride 0.337 in and Dimension	ameter Nominal W 0.042 in ns	all Thickness Ripco	_	Solid
Capacitance	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction at abling Twists 3.74 twist/ft Electrical Chara onductor DCR Nominal Conductor	Nominal Dia ride 0.337 in nd Dimension acteristics	ameter Nominal W 0.042 in NS	all Thickness Ripco	_	Solid
	uter Jacket Materia Material PVC - Polyvinyl Chlo Construction at abling Twists 3.74 twist/ft Electrical Chara onductor DCR Nominal Conductor	Nominal Dia ride 0.337 in nd Dimension acteristics	ameter Nominal W 0.042 in NS	all Thickness Ripco	_	Solid

Conductor DCR		
Nominal Conductor DCR	Nominal Outer Sh	ield DCR
1.58 Ohm/1000ft	6.9 Ohm/1000ft	
Capacitance		
Nom. Capacitance Condu	ictor to Conductor	Nom. Ca
66.9 pF/ft		120.4 pF/

#### Inductance

Nominal Inductance

0.16 µH/ft

#### Current

Max. Recommended Current [A] 12 Amps per Conductor at 25°C

#### Voltage

UL Voltage Rating 150 V RMS

### **Temperature Range**

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

#### **Mechanical Characteristics**

Bulk Cable Weight:	73.4 lbs/1000ft
Max. Pull Tension:	172 lbs
Min Bend Radius/Minor Axis:	3.25 in

#### Standards

NEC Articles:	Article 760
NEC/(UL) Compliance:	NPLF

### **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):	2005-07-01
MII Order #39 (China RoHS):	Yes

#### Suitability

	Suitability - Indoor:	Yes
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#### Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	150 V RMS
Plenum/Non-Plenum	
Plenum (Y/N):	No

### Part Number

Variants

Item #	Color	UPC
5020FN 002500	Red	612825155904

#### History

Update and Revision:

Revision Number: 0.229 Revision Date: 06-24-2020

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