

## 558AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications

For more Information  
please call

1-800-Belden1



### General Description:

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

### Usage (Overall)

Suitable Applications: Access Control

### Twisted Pair

#### Physical Characteristics

##### Conductor

###### AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
3	22	7x30	BC - Bare Copper	0.762

##### Insulation

###### Insulation Material:

Insulation Material	Wall Thickness (mm)
PP - Polypropylene	0.178

###### 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 Material
PVC - Polyvinyl Chloride

###### Outer Jacket Diameter:

Nom. Dia. (mm)
5.359

###### Outer Jacket Color Code Chart:

Number	Color	Description
1	Orange	Card Reader

##### Electrical Characteristics

###### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

## 558AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications

141.903

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
78.744

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
53.480

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 45.606 Ohm/km

### Max. Recommended Current:

Description	Current
Card Reader	2

## Multi Conductor

### Physical Characteristics

#### Conductor

##### AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
2	22	7x30	BC - Bare Copper	0.762
4	22	7x30	BC - Bare Copper	0.762
4	18	7x26	BC - Bare Copper	1.194

### Insulation

#### Insulation Material:

Insulation Material	Wall Thickness (mm)	AWG
PP - Polypropylene	0.203	18
PP - Polypropylene	0.203	22

#### 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 Material
PVC - Polyvinyl Chloride

#### Outer Jacket Diameter:

METRIC MEASUREMENT VERSION

## 558AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications

Component #	Nom. Dia. (mm)
Door Contact	3.353
Rex/Spare	3.835
Lock/Power	4.928

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/m)
Door Contact	1.000	203.422
Rex/Spare	1.000	132.881
Lock Power	1.000	159.129

## Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Capacitance (pF/m)
Door Contact	1.000	113.195
Rex/Spare	1.000	73.823
Lock Power	1.000	88.587

## Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
Door Contact	53.808
Rex/Spare	53.808
Lock Power	21.327

## Nom. Inner Shield DC Resistance:

Description	DCR @ 20°C (Ohm/km)
Door Contact	52.824
Rex/Spare	52.824
Lock Power	23.623

## 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 Material
PVC - Polyvinyl Chloride

## Overall Cable

Overall Nominal Diameter: 12.497 mm

## Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 189.001 Kg/Km

Max. Recommended Pulling Tension: 889.640 N

## 558AFJ Composite - Lock Power, Card Reader, Door Contract, REX Applications

Min. Bend Radius/Minor Axis: 127 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
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):	06/20/2007
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
CSA Flame Test:	FT4

#### Suitability

Suitability - Indoor:	Yes
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#### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	658AFJ

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
558AFJ 0041000	1,000 FT	120.000 LB	YELLOW	C	3P22+2C22+4C22+4C18 IFS CMR

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 2    Revision Date: 07-14-2017

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