

## 558AFS Composite - Lock Power, Card Reader, Door Contact, REX Applications



For more Information  
please call

1-800-Belden1



### Description:

18 AWG stranded bare copper conductors, PP insulation, PVC jackets, no overall jacket, all cables are Beldfoil® shielded, cable jackets are color coded by application, individual jacket is sequentially marked at two foot intervals.

### Usage (Overall)

Suitable Applications: Access Control

### Twisted Pair

#### Physical Characteristics

##### Conductor

###### AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
3	22	7x30	BC - Bare Copper	0.030

##### Insulation

###### Insulation Material:

Insulation Material	Wall Thickness (in.)
PP - Polypropylene	0.007

##### Inner Jacket

###### Inner Jacket Color Code Chart:

Number	Color
Card Reader 1	Black and Red
Card Reader 2	White and Green
Card Reader 3	Orange and Brown

##### Individual Shield

###### Individual Shield Color Code Chart:

##### 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
F-R PVC - Flame Retardant Polyvinyl Chloride

###### Outer Jacket Diameter:

Nom. Dia. (in.)
0.211

Outer Jacket Ripcord: Yes

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

Number	Color
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Card Reader	Orange
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### Applicable Specifications and Agency Compliance Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

### Flame Test

UL Flame Test: UL1666 Vertical Shaft

### Suitability

Suitability - Indoor: Yes

### Electrical Characteristics

#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
45.000

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
25.000

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
16.300

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 13.900 Ohm/1000 ft

#### Max. Operating Voltage - Other:

Voltage	Description
null	300 V RMS

#### Max. Recommended Current:

Description	Current
Card Reader	2

## Multi Conductor

### Physical Characteristics Conductor

#### AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
2	22	7x30	BC - Bare Copper	0.030
4	22	7x30	BC - Bare Copper	0.030
4	18	7x26	BC - Bare Copper	0.047

### Insulation

#### Insulation Material:

Insulation Material	Wall Thickness (in.)	AWG
PP - Polypropylene	0.007	22
PP - Polypropylene	0.007	18

#### Insulation Color Code Chart:

Color	Description
Black	Door Contact 1
Red	Door Contact 2
Black	Rex/Spare 1
Red	Rex/Spare 2
White	Rex/Spare 3
Green	Rex/Spare 4
Black	Lock/Power 1
Red	Lock/Power 2
White	Lock/Power 3
Green	Lock/Power 4

## 558AFS Composite - Lock Power, Card Reader, Door Contact, REX Applications

### Individual Shield

Individual Shield Color Code Chart:

### 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 Diameter:

Component #	Nom. Dia. (in.)
Door Contact	0.127
Rex/Spare	0.145
Lock/Power	0.186

Outer Jacket Ripcord: Yes

Outer Jacket Color Code Chart:

Number	Color
Door Contact	White
Rex/Spare	Blue
Lock/Power	Gray

### Applicable Specifications and Agency Compliance

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

### Flame Test

UL Flame Test: UL1666 Vertical Shaft

### Suitability

Suitability - Indoor: Yes

### Electrical Characteristics

Nom. Capacitance Conductor to Shield:

Description	Freq. (MHz)	Capacitance (pF/ft)
Door Contact	1.000	69.000
Rex/Spare	1.000	43.250
Lock Power	1.000	51.250

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Capacitance (pF/ft)
Door Contact	1.000	38.250
Rex/Spare	1.000	24.000
Lock Power	1.000	28.500

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
Door Contact	16.400
Rex/Spare	16.400
Lock Power	6.500

Nom. Inner Shield DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)
Door Contact	16.100

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Rex/Spare	16.100
Lock Power	7.200

### Max. Operating Voltage - Other:

<b>Voltage</b>
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:

<b>Outer Jacket Material</b>
Unjacketed

### Overall Cabling

Overall Nominal Diameter: 0.448 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: 0°C To +75°C

Bulk Cable Weight: 95.000 lbs/1000 ft.

Max. Recommended Pulling Tension: 200.000 lbs.

Min. Bend Radius (Install)/Minor Axis: 4.400 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 04/01/2005

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

### Plenum/Non-Plenum

Plenum (Y/N): No

Plenum Number: 658AFS

## Notes (Overall)

**Notes:** Cold environment installation: When installing cables that have been stored at ambient temperatures of 32 degrees Fahrenheit (0 degrees Centigrade) or lower, Belden recommends conditioning of the cable for 12 hours at room temperature prior to individual cable leg separation. Banana Peel® US PATENT 7049523.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
558AFS 0001000	1,000 FT	106.000 LB	NONE	C	4C18 + 4C22 + 3P22 + 2C22 SHLD
558AFS 000500	500 FT	53.500 LB	NONE	C	4C18 + 4C22 + 3P22 + 2C22 SHLD

### Notes:

C = CRATE REEL PUT-UP.

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