

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)

METRIC MEASUREMENT VERSION

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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:

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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

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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.

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