

658AFS Composite - Lock Power, Card Reader, Door Contract, REX Applications



For more Information
please call

1-800-Belden1



General Description:

Access Control Cable, Plenum-CMP, 3-22 AWG pairs, 4-18 AWG conductors, 4-22 AWG conductors, 2-22 AWG conductors, All conductors stranded bare copper with Flamarrest® insulation, Each cable has overall Beldfoil® shield and Flamarrest® jacket, Banana Peel® No overall jacket

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	0.029

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (in.)
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	0.047

Twisted Pair Color Code Chart:

Number	Color	Description
1	Black and Red	Card Reader 1
2	White and Green	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	Solid	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (in.)
0.216

Outer Jacket Color Code Chart:

Number	Color	Description
1	Orange	Card Reader

Applicable Specifications and Agency Compliance

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

CEC/C(UL) Specification: CMP

Flame Test

UL Flame Test: NFPA 262

Suitability

Suitability - Indoor: Yes

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

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60.000

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
33.000

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 - Non-UL:

Voltage
300 V RMS

Max. Recommended Current:

Description	Current
Card Reader	2 amps @ 25C ambient (10C Temperature Rise)

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
2	22	7x30	BC - Bare Copper	0.029
4	22	7x30	BC - Bare Copper	0.029
4	18	7x26	BC - Bare Copper	0.046

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (in.)	AWG
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	0.047	22
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	0.066	18

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	Red/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 Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

Component #	Nom. Dia. (in.)
Door Contact	0.128
Rex/Spare	0.147
Lock/Power	0.193

Outer Jacket Ripcord: Yes

Outer Jacket Color Code Chart:

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Number	Color	Description
1	White	Door Contact
2	Blue	Rex/Spare
3	Gray	Lock/Power

Applicable Specifications and Agency Compliance Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

CEC/C(UL) Specification: CMP

Flame Test

UL Flame Test: NFPA 262

Suitability

Suitability - Indoor: Yes

Electrical Characteristics

Nom. Capacitance Conductor to Shield:

Description	Freq. (MHz)	Capacitance (pF/ft)
Door Contact	0.001	99.000
Rex/Spare	0.001	59.000
Lock Power	0.001	76.000

Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Capacitance (pF/ft)
Door Contact	1.000	55.000
Rex/Spare	1.000	33.000
Lock Power	1.000	40.000

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	16.700
Rex/Spare	16.700
Lock Power	15.900

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Recommended Current:

Description	Current
Door Contact	2.2 Amps @ 25C ambient (10C temperature rise)
Rex/Spare	2.2 Amps @ 25C ambient (10C temperature rise)
Lock Power	4.0 Amps @ 25C ambient (10C temperature rise)

Physical Characteristics (Overall)

Conductor

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Unjacketed

Overall Cable

Overall Nominal Diameter: 0.420 in.

Mechanical Characteristics (Overall)

Bulk Cable Weight: 100 lbs/1000 ft.

Max. Recommended Pulling Tension: 200 lbs.

Min. Bend Radius/Minor Axis: 4.200 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

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

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

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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

Applicable Patents:

Country
www.belden.com/p

Suitability

Suitability - Indoor:	Yes
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Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	558AFS

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.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
658AFS 0001000	1,000 FT	108.000 LB	NONE	C	4C18 + 4C22 + 3P22 + 2C22 SHLD
658AFS 000500	500 FT	55.000 LB	NONE	C	4C18 + 4C22 + 3P22 + 2C22 SHLD

Notes:

C = CRATE REEL PUT-UP.

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