

Part Number: 658AFS

16c (#22-3pr, #18-4c, #22-6c), Shielded, CMP, Banana Peel®



Product 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

Technical Specifications

Product Overview

Suitable Applications:	Access Control, Access Control Doors, Lock Power, Card Reader, Door Contract, REX/Spare
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Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	Nominal Diameter	No. of Conductors	No. of Pairs
Card Reader (Orange)	22	7x30	BC - Bare Copper	0.029 in		3
Door Contact (White)	22	7x30	BC - Bare Copper	0.029 in	2	
REX/Spare (Blue)	22	7x30	BC - Bare Copper		4	
Lock Power (Gray)	18	7x26	BC - Bare Copper		4	

Conductor Count:	16
Conductor Size:	22 AWG

Insulation

Element	Material	Material Trade Name	Nominal Diameter
22	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.047 in
18	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.047 in
	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.047 in
	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.066 in

Color Chart

Number	Color
Card Reader 1	Black & Red
Card Reader 2	White & Green
Card Reader 3	Orange & Brown
Door Contact 1	Black
Door Contact 2	Red
Rex/Spare 1	Black
Rex/Spare 2	Red
Rex/Spare 3	White
Rex/Spare 4	Green
Lock/Power 1	Black
Lock/Power 2	Red
Lock/Power 3	White
Lock/Power 4	Green

Color Chart 4

Number	Color
Card Reader (3Pr #22)	Orange
Door Contact (2C #22)	White
Rex/Spare (4C #22)	Blue
Lock/Power (4C #18)	Gray

Inner Jacket Material

Element	Material	Material Trade Name	Nominal Diameter
Card Reader	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.216 in
Door Contact	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.128 in
Rex / Spare	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.147 in
Lock / Power	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.193 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Card Reader (3Pr #22)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	Solid
Tape	Door Contact (2C #22)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	(7 X 32)
Tape	Rex / Spare (4C #22)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	(7 X 32)
Tape	Lock / Power (4C #18)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	(7 X 32)

Outer Jacket Material

Nominal Diameter
0.128 in
0.147 in
0.193 in
0.42 in

Electrical Characteristics

Conductor DCR

Element	Individual Pair Nominal Shield DCR	Nominal Conductor DCR	Nominal Inner Shield DCR
Card Reader (Orange)	13.9 Ohm/1000ft	16.3 Ohm/1000ft	
Door Contact (White)		16.4 Ohm/1000ft	16.7 Ohm/1000ft
Rex/Spare (Blue)		16.4 Ohm/1000ft	16.7 Ohm/1000ft
Lock Power (Gray)		6.5 Ohm/1000ft	15.9 Ohm/1000ft

Capacitance

Element	Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
Card Reader Pair	33 pF/ft	60 pF/ft
Door Contact	55 pF/ft	99 pF/ft
Rex/Spare	33 pF/ft	59 pF/ft
Lock Power	40 pF/ft	76 pF/ft

Shielding:	Foil(s) or Copper Tape(s)
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Current

Element	Max. Recommended Current [A]
Card Reader	Per conductor @ 25°C; 18 awg - 4 A & 22 awg - 2.2 A
Door Contact	2.2 Amps @ 25C ambient (10C temperature rise)
Rex/Spare	2.2 Amps per conductor @ 25°C
Lock Power	4 Amps per conductor @ 25°C

Voltage

UL Voltage Rating
300 V RMS

Mechanical Characteristics

Bulk Cable Weight:	100 lbs/1000ft
Max Recommended Pulling Tension:	200 lbs
Min Bend Radius/Minor Axis:	4.2 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
CPR Euroclass:	Eca

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 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
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Flammability, LSOH, Toxicity Testing

UL Flammability:	NFPA 262 Plenum Flame Test
CSA Flammability:	FT6
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Non-Plenum Number:	558AFS
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Variants

Item #	Footnote
658AFS 0001000	C
658AFS 000500	C

Footnote:	C - CRATE REEL PUT-UP.
Patent:	https://www.belden.com/resources/patents

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