

Product: 538AFS

Access Control, 16c (#18-3pr, #16-4c, #18-6c), Shielded, Banana Peel®, CMR

Product Description

Access Control Cable, Riser-CMR, 3-18 AWG pairs, 4-16 AWG conductors, 4-18 AWG conductors, 2-18 AWG conductors, All conductors stranded bare copper with polypropylene insulation, Each cable has overall Beldfoil® shield and PVC jacket, Banana Peel® No overall jacket

Technical Specifications

Product Overview

Suitable Applications:	Access Control, Security System, Power Limited Controls
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents.

Construction Details

Conductor

Element Description	Element	Number of Element	Size	Stranding	Material
Card Reader	Pair(s)	3	18 AWG	7x26	BC - Bare Copper
Door Contact	Conductor(s)	2	18 AWG	7x26	BC - Bare Copper
REX/Spare	Conductor(s)	4	18 AWG	7x26	BC - Bare Copper
Lock Power	Conductor(s)	4	16 AWG	19x29	BC - Bare Copper

Insulation

Element Description	Element	Material	Nom. Thickness	Color Code
Card Reader	Pair(s)	PP - Polypropylene	0.007 in (0.18 mm)	Black & Red, White & Green, Brown & Orange
Door Contact	Conductor(s)	PP - Polypropylene	0.007 in (0.18 mm)	Black, Red
REX/Spare	Conductor(s)	PP - Polypropylene	0.007 in (0.18 mm)	Black, Red, White, Green
Lock Power	Conductor(s)	PP - Polypropylene	0.008 in (0.20 mm)	Black, Red, White, Green

Inner Shield

Element Description	Element	Shield Type	Material	Coverage	Drainwire Type
Card Reader	Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Door Contact	Conductor(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
REX/Spare	Conductor(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Lock Power	Conductor(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

Inner Jacket

Element Description	Element	Material	Nom. Diameter	Ripcord	Color
Card Reader	Pair(s)	PVC - Polyvinyl Chloride	0.272 in (6.91 mm)	Yes	Orange
Door Contact	Conductor(s)	PVC - Polyvinyl Chloride	0.162 in (4.11 mm)	Yes	White
REX/Spare	Conductor(s)	PVC - Polyvinyl Chloride	0.194 in (4.93 mm)	Yes	Blue
Lock Power	Conductor(s)	PVC - Polyvinyl Chloride	0.220 in (5.59 mm)	Yes	Gray

Outer Jacket

Nom. Diameter
0.516 in (13.1 mm)

Table Notes:	Banana Peel®
Overall Cable Diameter (Nominal):	0.516 in (13.1 mm)

Electrical Characteristics

Electricals

Element Description	Element	Nom. Conductor DCR	Nom. Inner Shield DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Max. Current
Card Reader	Pair(s)	6.6 Ohm/1000ft (22 Ohm/km)	13.1 Ohm/1000ft (43.0 Ohm/km)	29 pF/ft (95 pF/m)	52.25 pF/ft (171.4 pF/m)	4 Amps per Conductor at 25ºC
Door Contact	Conductor(s)	6.6 Ohm/1000ft (22 Ohm/km)	16.7 Ohm/1000ft (54.8 Ohm/km)	52.5 pF/ft (172 pF/m)	94.5 pF/ft (310 pF/m)	4 Amps per Conductor at 25ºC
REX/Spare	Conductor(s)	6.6 Ohm/1000ft (22 Ohm/km)	15.9 Ohm/1000ft (52.2 Ohm/km)	29 pF/ft (95 pF/m)	52.25 pF/ft (171.4 pF/m)	4 Amps per Conductor at 25ºC
Lock Power	Conductor(s)	4 Ohm/1000ft (13 Ohm/km)	15.9 Ohm/1000ft (52.2 Ohm/km)	30.5 pF/ft (100 pF/m)	55 pF/ft (180 pF/m)	5 Amps per Conductor at 25ºC

Voltage

UL Voltage Rating
300 V (UL CMR)

Mechanical Characteristics

Temperature

Operating
0°C to +75°C

Bend Radius

Stationary Min.	Installation Min.
5.2 in (130 mm)	5.2 in (130 mm)

Max. Pull Tension:	428 lbs (194 kg)
Bulk Cable Weight:	148 lbs/1000ft (220 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor - Riser, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	UL1666 Riser, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMG
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	638AFS

Product Notes

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.

History

Update and Revision:	Revision Number: 0.364 Revision Date: 02-08-2022

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
538AFS 0001000	Orange, White, Blue, Gray	Reel	1,000 ft	612825161806

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