



Product: [438AFJ](#)

Life Cycle Status: Capability

Access Control, 16c (#18-3pr, #16-4c, #18-6c), Shielded, Outer Jacket, Eca

Product Description

Access Control Cable, 3-18 AWG pairs, 4-16 AWG conductors, 4-18 AWG conductors, 2-18 AWG conductors, All conductors stranded bare copper with polyolefin insulation, Each cable has overall Beldfoil® shield and LSZH jackets, Overall LSZH jacket

Technical Specifications

Product Overview

Suitable Applications:	Access Control, Security System, Power Limited Controls
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Construction Details

Conductor

Element Description	Element	No. of Elements	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. Insulation Diameter	Color Code
Card Reader	Pair(s)	PP - Polypropylene		Black & Red, White & Green, Brown & Orange
Door Contact	Conductor(s)	PP - Polypropylene		Black, Red
REX/Spare	Conductor(s)	PP - Polypropylene		Black, Red, White, Green
Lock Power	Conductor(s)	PP - Polypropylene	0.073 in (1.9 mm)	

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)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.272 in (6.91 mm)	Yes	Orange
Door Contact	Conductor(s)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.168 in (4.27 mm)	Yes	White
REX/Spare	Conductor(s)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.194 in (4.93 mm)	Yes	Blue
Lock Power	Conductor(s)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.220 in (5.59 mm)	Yes	Gray

Outer Jacket

Nom. Diameter	Ripcord
0.586 in (14.9 mm)	Yes

Overall Cable Diameter (Nominal):	0.586 in (14.9 mm)
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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)		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 25°C
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 25°C
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 25°C
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 25°C

Mechanical Characteristics

Temperature

Operating
-5°C to +70°C

Max. Pull Tension:	253 lbs (115 kg)
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Standards and Compliance

Environmental Suitability:	Indoor
CPR Compliance:	CPR Euroclass: Eca
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	638AFJ

Product Notes

Notes:	This is a preliminary Technical Design Specification (TDS) which is subject to modification throughout the prototyping phase. The minimum business quantity to offer is 3km for the first order. This product will have Yellow as standard color and 305mt as standard put-ups. Additional options for colors and put-ups are available on special request. The estimated production lead time for the first order needs to be requested to a Belden Representative.
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History

Update and Revision:	Revision Number: 0.7 Revision Date: 06-19-2024
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