BELDEN

Product: 4381MDW ⧉

Life Cycle Status: Capability

1Pr 24AWG Shielded Data + 18/2 Power OSDP, Cca

Product Description

OSDP Reader Cable, 1 Pair 24 AWG stranded (7x32) tinned copper (data) with foam PE insulation, Beldfoil® shield w/ drain, 2 Conductor 18 AWG stranded (7x26) Bare copper conductor (power) LSZH

Technical Specifications

Product Overview

Suitable Applications:	OSDP Readers, RS-485, Serial Data, Access Control

Construction Details

Conductor

Element	Size	Stranding	Material	Notes
Data Pair(s)	24 AWG	7x32	TC - Tinned Copper	Twisted Pair Configuration
Power Pair(s)	18 AWG	7x26	BC - Bare Copper	

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Data Pair(s)	PE - Polyethylene (Foam)	1.87 mm (0.0736 in)	White/Blue Stripe & Blue/White Stripe
Power Pair(s)	LSZH - Low Smoke Zero Halogen (Flame Retardant)	1.7 mm (0.067 in)	Black & Red

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type
Data Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Power Pair(s)				

Outer Shield

Material
No Shield

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.9 mm (0.035 in)	6.5 mm (0.26 in)	Yes

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Data Pair(s)	79 Ohm/km (24 Ohm/1000ft)	43 pF/m (13 pF/ft)	24 pF/ft (79 pF/m)	79 pF/m (24 pF/ft)	120 Ohm	76%	3.8 Amps per Conductor at 25ºC (22 AWG)
Power Pair(s)	22.6 Ohm/km (6.89 Ohm/1000ft)						

Mechanical Characteristics

Temperature

Operating

-30°C To +70°C

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Cca, Indoor, Non-Halogenated, Sunlight Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Cca-s1,d1,a1
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3

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 6km for the first order. This product will have Orange as standard color and 305mt or 500mt 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 will be similar to the production lead time of 1502ELW plus extra 6-7 weeks. Please liaise with your Belden representative for confirmation.

History

Update and Revision:	Revision Number: 0.12 Revision Date: 11-08-2024