



Product: [4542FDZ](#)

Life Cycle Status: Capability

OSDP RS485, 3 Pr #22 Str TC, PO Ins, OS, LSZH Jkt, Eca



Product Description

OSDP RS-485, 3 Pair 22AWG (7x30) Tinned Copper, PO Insulation, Overall Beldfoil®+Tinned Copper drainwire, LSZH Outer Jacket, CPR Eca

Technical Specifications

Product Overview

Suitable Applications:	Instrumentation and computer cable. For OSDP EIA RS-485 transmissions applications
------------------------	--

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	3	22 AWG	7x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	PE - Polyethylene (Foam)	0.6 mm (0.024 in)	1.95 mm (0.0768 in)	White/Blue & Blue/White, White/Orange & Orange/White, White/Green & Green/White

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.7 mm (0.028 in)	7.60 mm (0.299 in)

Overall Cable Diameter (Nominal):	7.60 mm (0.299 in)
-----------------------------------	--------------------

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedance	Nom. Velocity of Prop.	Max. Current
Pair(s)	78.7 Ohm/km (24.0 Ohm/1000ft)	40 pF/m (12 pF/ft)	78 pF/m	120 Ohm	78%	2.0 Amps per Conductor

High Frequency (Nominal/Typical)

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	1	1.64 dB/100m (0.500 dB/100ft)

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-----------	--------------	---------

-30°C To +70°C -15°C To +70°C -30°C To +70°C

Bend Radius

Stationary Min.	Installation Min.
38 mm (1.5 in)	76 mm (3.0 in)

Max. Pull Tension:	450 N (100 lbf)
Bulk Cable Weight:	38 kg/km (26 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca, Indoor, Non-Halogenated, Sunlight Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = 60%
CENELEC Compliance:	EN 50290-2-20
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
European Directive Compliance:	EU CE Mark
UK Regulation Compliance:	UKCA Mark

Product Notes

Notes:	This is a preliminary Technical Design Specification (TDS). The minimum business quantity to offer is 3km for the first order. This product will have Orange 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 will be similar to the production lead time of 4541FDW. Please liaise with your Belden representative for confirmation.
--------	--

History

Update and Revision:	Revision Number: 0.18 Revision Date: 05-07-2025
----------------------	---

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.