# Detailed Specifications & Technical Data



# 3105A Paired - RS-485

For more information please call
1-800-Belden1

See Put-ups and Colors

#### **Description:**

22 awg stranded (7X30) tinned copper, Datalene@ insulation, twisted pairs, overall 100% Beldfoil@ shield + 90% tinned copper braid, 22 awg stranded TC drain wire, UV resistant PVC jacket.

#### PHYSICAL CHARACTERISTICS:

#### **CONDUCTOR:**

Number of Pairs	1
Total Number of Conductors	2
AWG	22
Stranding	7x30
Conductor Diameter	.030 in.
Conductor Material	TC - Tinned Copper

### INSULATION:

Insulation Material Trade Name	Datalene®
Insulation Material	FHDPE - Foam High Density Polyethylene
Lay Length	2.5 in.

### **OVERALL CABLING:**

Overall Cabling Color Code Chart:

Number	Color
1	White/Blue Stripe
2	Blue/White Stripe

### **OUTER SHIELD:**

Outer Shield Material Trade Name	Beldfoil®
Outer Shield Type	Tape/Braid

## Outer Shield Material:

Layer Number	Material Trade Name	Туре	Material	% Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	90

Outer Shield %Coverage 100 %

#### **OUTER SHIELD DRAIN WIRE:**

Outer Shield Drain Wire AWG

# Detailed Specifications & Technical Data



# 3105A Paired - RS-485

Outer Shield Drain Wire Stranding	7x30
Outer Shield Drain Wire Diameter	.030 in.
Outer Shield Drain Wire Conductor Material	TC - Tinned Copper

**OUTER JACKET:** 

Outer Jacket Material PVC - Polyvinyl Chloride

**OVERALL NOMINAL DIAMETER:** 

Overall Nominal Diameter .284 in.

#### MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +60°C
Non-UL Temperature Rating	60°C
Bulk Cable Weight	44 lbs/1000 ft.
Max. Recommended Pulling Tension	60 lbs.
Min. Bend Radius (Install)	2.5 in.

### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### **APPLICABLE STANDARDS:**

NEC/(UL) Specification	CM, PLTC OIL RES II
CEC/C(UL) Specification	CM

#### FLAME TEST:

UL Flame Test	UL1581 Vertical Tray
CSA Flame Test	FT1

#### **SUITABILITY:**

Sunlight Resistance Passes UL 1581, 720 Hours

## PLENUM/NON-PLENUM:

Plenum (Y/N) N

#### **ELECTRICAL CHARACTERISTICS:**

Input/Unfitted Impedance:

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Input/Unfitted Impedance (Ohms)
	1			120
Nom. Capacitance Conducte	or to Conductor @ 1 KHz	11.0 pF/ft		
Nom. Cap. Cond. to Other Cond. & Shield @ 1 KHz		20.9 pF/ft		
Nominal Velocity of Propagation		78 %		
Nom. Conductor DC Resistance of Pair @ 20 Deg. C		14.7 Ohms/1000 ft		
Nominal Outer Shield DC Resistance @ 20 Deg. C		2.8 Ohms/1000 ft		
Nom. Attenuation (dB/100 t	ft):			

# Detailed Specifications & Technical Data



## 3105A Paired - RS-485

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Nom. Attenuation (dB/100 ft.)		
	1			.5		
Max. Operating Voltage - UL		300 V RMS	300 V RMS			
Max. Recommended Curre	ent	2.7 Amps per conductor @ 25°C				
NOTES:						
Notes		Oil Resistance: Passes Oil	Oil Resistance: Passes Oil Res II Per UL1277, Table 10.17			
Notes (Cont'd.)		CPE Jacket Optional	CPE Jacket Optional			

#### **PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
3105A 0101000	1 PR #22 FHDPE SH PVC	1000	50	BLACK	CD
3105A 010500	1 PR #22 FHDPE SH PVC	500	25	BLACK	C D
3105A 0105000	1 PR #22 FHDPE SH PVC	5000	255	BLACK	C D

C = CRATE REEL PUT-UP.

D = FINAL PUT-UP LENGTH MAY VARY -0% TO +20% FROM LENGTH SHOWN.

Revision Number: 1 Revision Date: 06-08-2004

© 2003 Belden Wire & Cable Company All Rights Reserved.

Although Belden Electronics Division ("Belden") makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein 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 "AS IS" basis, with no representations or warranties, whether express,

Belden provides the information and specifications herein on an "AS IS" 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.