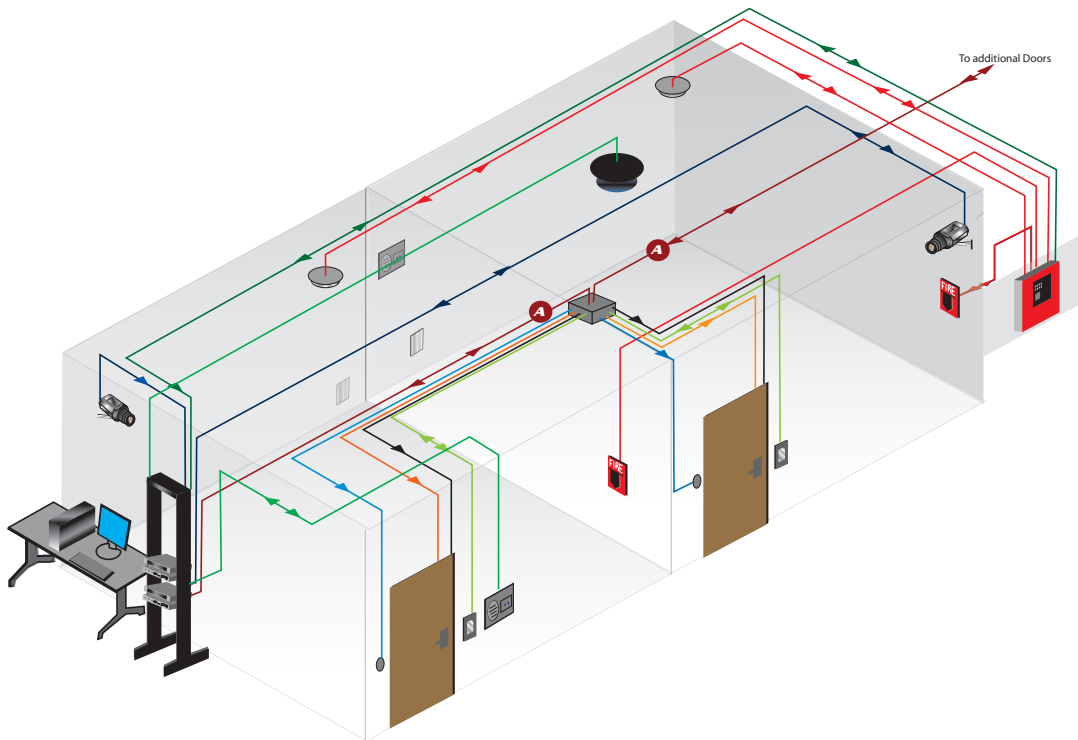


Serial Data Grade Cables

Data... Delivered. Serial digital systems such as RS-232, RS-422, and RS-485 require digital signals to be delivered from component to component with minimal distortion. West Penn Wire serial data grade cables are manufactured with low loss insulation providing superior electrical characteristics with either single or dual shields. When the application calls for digital 1s and 0s, graduate to the level of serial data grade.



FEATURES

- Superior electrical characteristics
- Low Loss Insulations
- Superior Shielding
- RS-232 Applications
- RS-422 Applications
- RS-485 Applications
- 1-1000ft Incremental Footage Markers
- Advantage Box Packaging

MINI INDEX



Non-Plenum Low Capacitance Cables

- Multiple Pair/ Overall Shield..... 1
- Multiple Pair Series/ Individually Shielded..... 2

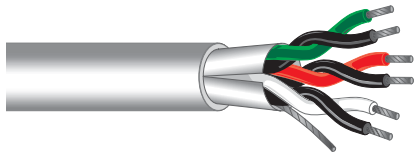
Plenum Low Capacitance Cables

- Multiple Pair Series/ Overall Shielded..... 3
- Multiple Pair Series/ Individually Shielded..... 2
- DB9 Connectors and Assemblies..... 4

RS-485 Cables

- Non-Plenum RS-485 5
- Plenum RS-485 6

Serial Data Grade Cable



Data Grade Cable Multiple Pair / Overall Shielded

Description:

- ASTM Tinned Copper • Polyolefin insulation
- Overall shield 100% coverage of aluminum polyester foil with 24 AWG strd. TC drain wire • Twisted Pair Construction • Overall PVC jacket

Rating:

- NEC Type CM
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1685

Applications:

- Indoor for:
- Control
 - Signaling
 - Electronic Data
 - Microprocessor Based
 - Serial Data
 - DMX Audio
 - RS-485
 - RS-232

Standard pool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D2401	1 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.160	CM	14.5pf/ft* 26pf/ft **	Gray
D2402	2 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.228	CM	14.5pf/ft* 26pf/ft **	Gray
D2404	4 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.268	CM	14.5pf/ft* 26pf/ft **	Gray
D3651	2 Pair	22 AWG (7x30) 17 Ω/Mft	Polyolefin .010	Al. Foil 100%	PVC .030	.235	CM	26pf/ft* 47pf/ft **	Gray
D3653	4 Pair	22 AWG (7x30) 17 Ω/Mft	Polyolefin .010	Al. Foil 100%	PVC .030	.268	CM	26pf/ft* 47pf/ft **	Gray

Special Notes:

- Cables are packaged in the Advantage Box.
- Orange ripcord included on cables containing 3 or more pairs.

Color Code	
Pair No.	Colors
1	Black/Red
2	Black/White
3	Black/Green
4	Black/Blue
JACKET: Gray	

Electrical Characteristics

Nom. Vel of Propagation - 66%
Nom. Impedance Ω 24 Awg.- 100Ω
Nom. Impedance Ω 22 Awg.- 55Ω

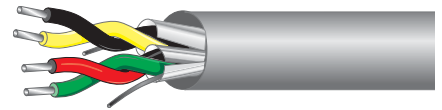
* Capacitance between conductors.

** Capacitance between one conductor and the other connected to the shield

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Serial Data Grade Cable

Data Grade Cable Multiple Pair Series / Individually Shielded



Applications:

Indoor for:

- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data

Description:

- ASTM Tinned Copper • Polyolefin insulation • Each pair shielded 100% coverage of aluminum foil with 24 AWG Strd. TC drain wire • Twisted pair construction
- Overall PVC Jacket

Rating:

- NEC Type CM
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1685

Standard pool size 1000ft.

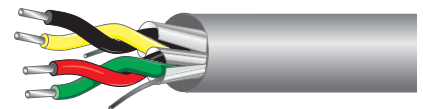
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D420 †	2	22 AWG Solid 17.5 Ω/Mft	Polyolefin .015	Individual Al. Foil 100%	PVC .030	.261	CM	15.5 pf/ft* 28 pf/ft**	Gray

* Capacitance between conductors.

** Capacitance between one conductor and the other connected to the shield

Color Code	
Pair No.	Colors
1	Black/Yellow
2	Red/Green
JACKET: Gray	

Data Grade Plenum Cable Multiple Pair Series / Individually Shielded



Rating:

- NEC Type CMP
- (UL)-C(UL) Listed or c(ETL)us Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Description:

- ASTM Tinned Copper • Teflon insulation • Each pair shielded 100% coverage of aluminum foil with 24 AWG Strd. drain wire • Twisted pair construction
- Flexible plenum jacket

Standard pool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D25420†	2	22 AWG Solid 17.5 Ω/Mft	Teflon .012	Individual Al. Foil 100%	PVDF .015	.185	CMP	15.5 pf/ft* 28 pf/ft**	Gray

Special Notes:

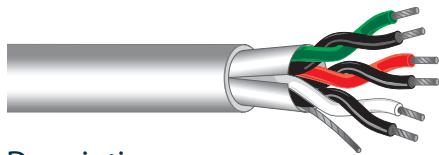
- † Drain wire 22 AWG Solid Tinned copper
- Cables are packaged in the Advantage Box.

Electrical Characteristics
Nom. Vel of Propagation - 66%
Nom. Impedance Ω D420 & D25420- 100Ω

* Capacitance between conductors.

** Capacitance between one conductor and the other connected to the shield

Serial Data Grade Cable



Data Grade Plenum Cable Multiple Pair Series / Overall Shielded

Description:

- ASTM Tinned Copper • Teflon Insulation • Overall shield 100% coverage of aluminum polyester foil with 24 Awg. Strd. drain wire • Twisted Pair Construction • Flexible plenum jacket

Rating:

- NEC Type CMP
- (UL)-C(UL) Listed or c(ETL)us Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Applications:

Indoor within ducts, plenums and other spaces used for environmental air:

- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data

Standard pool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D252401	1	24 AWG (7x32) 26 Ω/Mft	Teflon .013	Al. Foil 100%	Flexible Plenum .015	.115	CMP	14.5 pf/ft* 26 pf/ft**	Gray
D252402	2	24 AWG (7x32) 26 Ω/Mft	Teflon .013	Al. Foil 100%	Flexible Plenum .015	.188	CMP	14.5 pf/ft* 26 pf/ft**	Gray
D252404	4	24 AWG (7x32) 26 Ω/Mft	Teflon .013	Al. Foil 100%	Flexible Plenum .015	.224	CMP	14.5 pf/ft* 26 pf/ft**	Gray
D253651	2	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100%	Flexible Plenum .015	.191	CMP	25 pf/ft* 45 pf/ft**	Gray
D253652	3	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100%	Flexible Plenum .015	.204	CMP	25 pf/ft* 45 pf/ft**	Gray
D253653	4	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100%	Flexible Plenum .015	.224	CMP	25 pf/ft* 45 pf/ft**	Gray

Color Code	
Pair No.	Colors
1	Black/Red
2	Black/White
3	Black/Green
4	Black/Blue
JACKET: Gray	

Electrical Characteristics
Nom. Vel of Propagation - 69%
Nom. Impedance Ω 24 Awg.- 100Ω
Nom. Impedance Ω 22 Awg.- 55Ω

- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Cables are packaged in the Advantage Box.
- Teflon®- Dupont Tradename for FEP-Fluorinated Ethylene Propylene
- Plenum Installation Precautions see Technical Reference Section Page 192

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RS-485 Non-Plenum

SERIAL DATA CONNECTORS

DB9

DB9 Terminal Block Connectors	
Catalog No.	Description
CN-MX9F	PREMIUM DB9 (F) Terminal Block RS-232
CN-MX9M	PREMIUM DB9 (M) Terminal Block- RS-232
CN-MX915H	Hood for PREMIUM Terminal Blocks



CN-MX9M
With Hood
CN-MX915H

SERIAL DATA CONNECTORS

DB9 Assemblies

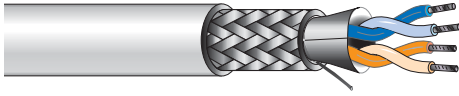
DB9 Assemblies - Non-Plenum	
Catalog No.	Description
CND2404DB9-xx	DB9 M to DB9 M -xx: 6,10,15,25 ft
CND2404FF9-xx	DB9 F to DB9 F -xx: 6,10,15,25 ft
CND2404MF9-xx	DB9 M to DB9 F -xx: 6,10,15,25 ft

DB9 Assemblies - Plenum	
Catalog No.	Description
CND252404DB9xx	DB9 M to DB9 M -xx: 6,10,15,25 ft
CND252404FF9xx	DB9 F to DB9 F -xx: 6,10,15,25 ft
CND252404MF9-xx	DB9 M to DB9 F -xx: 6,10,15,25 ft

Other lengths are available upon Request



RS-485 Plenum



Data Grade Cable Multiple Pair Series / Overall Shielded RS-485 Data Cables

Applications:

Indoor for:

- Computer Application
- Low Capacitance Data
- RS-485 Data Applications

Description:

- ASTM Tinned Copper • Polyolefin Insulation • Twisted pair construction • Polyester wrap • Overall shield 100% coverage of aluminum polyester foil with 24 Awg. Stranded drain wire
- 90% Tinned Copper Braid • Overall PVC Jacket

Rating:

- NEC Type CM
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1685

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D4851	1	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.275	CM	12.8 pf/ft* 23 pf/ft**	Gray
D4852	2	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.305	CM	12.8 pf/ft* 23 pf/ft**	Gray
D4853	3	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.320	CM	12.8 pf/ft* 23 pf/ft**	Gray
D4854	4	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.345	CM	12.8 pf/ft* 23 pf/ft**	Gray

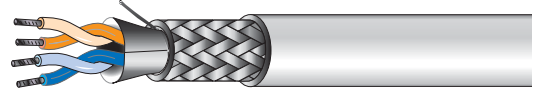
Color Code	
Pair No.	Colors
1	Blue- White
2	Orange- White
3	Green- White
4	Brown- White
JACKET: Gray	

Electrical Characteristics
Nom. Vel of Propagation - 66%
Nom. Impedance Ω 24 Awg.- 120Ω

- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield

RS-485 Plenum

Data Grade Plenum Cable Multiple Pair Series / Overall Shielded RS-485 Data Cables



Description:

- ASTM Tinned Copper • Foam Teflon Insulation • Twisted Pair Construction • Polyester wrap • Overall shield 100% coverage of aluminum polyester foil with 24 Awg. Stranded drain wire
- 90% Tinned Copper Braid • Overall Flexible Plenum Jacket

Rating:

- NEC Type CMP
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Applications:

Indoor within ducts, plenums and other spaces used for environmental air:

- Computer Application
- Low Capacitance Data
- RS-485 Data Applications

Standard pool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & Coverage	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
D254851	1	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.202	CMP	12 pf/ft* 22 pf/ft**	Gray
D254852	2	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.305	CMP	12 pf/ft* 22 pf/ft**	Gray

<p>Electrical Characteristics Nom. Vel of Propagation - 76% Nom. Impedance Ω 24 Awg.- 120Ω</p>
--

Color Code	
Pair No.	Colors
1	Blue- White
2	Orange- White
JACKET: Gray	

- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Teflon®- Dupont Tradename for FEP-Fluorinated Ethylene Propylene