WEST PENN WIRE

Access Control Composite Cables

OSDP Reader Cables

24 AWG Designs

Catalog No.	No. Of Conductor	Cond. Type & Nom. DCR	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D	Electrical Characteristics	NEC Rating
1PR2418P	1 Pair (2 Cond.)	24 AWG (7x32) Tinned Copper 26 Ω/1000 ft	Foam FEP .025 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.215 in	13.5 pF/ft 120 Ω	CMP
	2	18 AWG (7x26) Bare Copper 6.4 Ω/1000 ft	Plenum PVC .012 in	None			—	
D252P24P	2 Pair	24 AWG (7x32) Tinned Copper 26 Ω/1000 ft	Foam FEP .022 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.252 in	13.5 pF/ft 120 Ω	CMP
1PR24P	1 Pair	24 AWG (7x32) Tinned Copper 26 Ω/1000 ft	Foam FEP .025 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.186 in	10.8 pF/ft 120 Ω	CMP
OSP1PR24	1 Pair	24 AWG (7x32) Tinned Copper 26 Ω/1000 ft	Foam PE .016 in	100% AL Foil - 24 AWG Drain Wire Waterblocking Tape	Low Density PE	.183 in	12.5 pF/ft 100 Ω	Outside Plant OSP
OSP2PR24	2 Pair	24 AWG (7x32) Tinned Copper 26 Ω/1000 ft	Foam PE .014 in	100% AL Foil - 24 AWG Drain Wire Waterblocking Tape	Low Density PE	.224 in	12.5 pF/ft 100 Ω	Outside Plant OSP

What is OSDP?

OSDP is an open standard developed by the Security Industry Association (SIA) to ensure secure, interoperable communication between access control devices (such as card readers) and controllers. Unlike Wiegand, which sends unencrypted data in one direction, OSDP uses bidirectional, encrypted communication over a standard RS-485 connection.

Key Benefits of OSDP

Switching to OSDP offers significant advantages for both security and usability:

1. **Enhanced Security**
   Supports AES-128 encryption, preventing card data from being intercepted or cloned.
   Meets compliance requirements for high-security environments.
2. **Two-Way Communication**
   Controllers can communicate with readers, enabling features like remote configuration, LED control, and reader health monitoring.
3. **Longer Cable Runs**
   RS-485 allows cable runs of up to 4,000 feet, making it ideal for large campuses or facilities with long distances between devices.
4. **Interoperability**
   As an open standard, OSDP ensures that devices from different manufacturers can work together.
5. **Support for Advanced Credentials**
   Easily handles newer credential types such as mobile credentials, biometrics, and multi-factor authentication.

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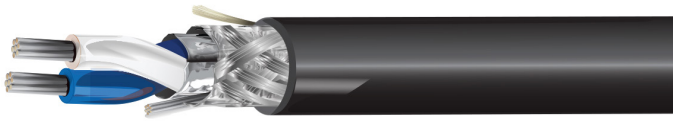

OSDP Reader Cables

22 AWG Designs

Catalog No.	No. Of Conductor	Cond. Type & Nom. DCR	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D	Electrical Characteristics	NEC Rating
1PR2216P	1 Pair (2 Cond.)	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam FEP .030 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.246 in	13.5 pF/ft 120 Ω	CMP
	2	16 AWG (19x29) Bare Copper 4.2 Ω/1000 ft	Plenum PVC .012 in	None			—	
1PR2218P	1 Pair (2 Cond.)	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam FEP .030 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.221 in	13.5 pF/ft 120 Ω	CMP
	2	18 AWG (7x26) Bare Copper 6.2 Ω/1000 ft	Plenum PVC .010 in	None				
D25222P	2 Pair	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam FEP .023 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.292 in	13.5 pF/ft 120 Ω	CMP
1PR22P	1 Pair	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam FEP .023 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.177 in	11.2 pF/ft 120 Ω	CMP
DRS485DB	1 Pair	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam PE .029 in	100% Aluminum Foil + 65% Tinned Copper Braid Waterblocked	CPE - Chlorinated Polyethylene	.339 in	11.2 pF/ft 120 Ω	Indoor/ Outdoor Direct Burial CM
2PR485DB	2 Pair	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam PE .025 in	100% Aluminum Foil + 65% Tinned Copper Braid Waterblocked	CPE - Chlorinated Polyethylene	.387 in	11.2 pF/ft 120 Ω	Indoor/ Outdoor Direct Burial CM
AQC1P2218	1 Pair (2 Cond.)	22 AWG (7x30) Tinned Copper 17 Ω/1000 ft	Foam PE .029 in	100% Aluminum Foil Waterblocked	UV Resistant PVC	.272 in	13.5 pF/ft 120 Ω	Indoor/ Outdoor CM
	2	18 AWG (7x26) Bare Copper 6.4 Ω/1000 ft	PVC .012 in	None Waterblocked			—	

OSDP Reader Cables

18 AWG Designs

Catalog No.	No. Of Conductor	Cond. Type & Nom. DCR	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D	Electrical Characteristics	NEC Rating
1PR18P	1 Pair	18 AWG (16x30) Tinned Copper 6.2 Ω/1000 ft	Foam FEP .028 in	100% Aluminum Foil - 24 AWG Drain Wire	Flex Plenum PVC	.253 in	15.3 pF/ft 100 Ω	CMP

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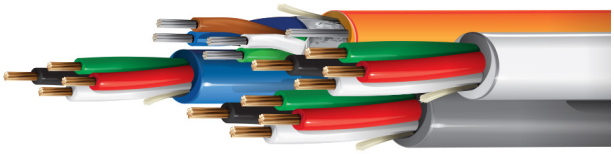
OSDP Composite Designs

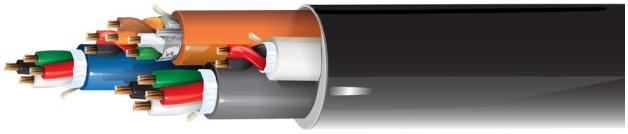


Catalog No.	No. Of Cond.	Cond. Type & Nom. DCR	Insulation Type	Shielding	Individual Jacket	Nom. O.D	Electrical Characteristics	NEC Rating
BPOSDP	14	OSDP Reader 1 Pr 24 AWG (7x32) TC 2 Cond. 18 AWG (7x26) BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	OSDP Reader .023 in Foam FEP .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	OSDP Reader 100% Al. Foil None Door Contact None REX/Spare None Lock/Power None	OSDP Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.455 in	OSDP Reader 13.5 pF/ft 120 Ω	Banana Peel CMP
BP22OSDP	14	OSDP Reader 1Pr. 22 AWG (7x32) TC 2 Cond. 18 AWG (7x26) BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	OSDP Reader .023 In Foam FEP .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	OSDP Reader 100% Al. Foil None Door Contact None REX/Spare None Lock/Power None	OSDP Reader White Door Contact White -Green REX/Spare White - Red Lock/Power White - Orange	.465 in	OSDP Reader 13.5 pF/ft 120 Ω	Banana Peel CMP
BP2OSDP	16	Dual OSDP Reader 2 Pr. 24 AWG (7x32) TC Door Contact 4 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 18 AWG (7x26) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	OSDP Reader .023 in Foam FEP Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	OSDP Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	OSDP Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.492 in	OSDP Reader 13.5 pF/ft 120 Ω	Banana Peel CMP
BP2XLOSDP	16	Dual OSDP Reader 2 Pr. 22 AWG (7x30) TC Door Contact 4 Cond. 22 AWG (7x30) BC Reader Pwr 4 Cond. 18 AWG (7x26) BC Lock/Sound 4 Cond.16 AWG (19x29) BC	OSDP Reader .023 in Foam FEP Door Contact .008 in PVC Reader Pwr .008 in PVC Lock/Sound .009 in PVC	OSDP Reader 100% Al. Foil Door Contact None Reader Pwr None Lock/Sound None	OSDP Reader Purple Door Contact White Reader Pwr Gray Lock/Sound Blue	.521 in	OSDP Reader 13.5 pF/ft 120 Ω	Banana Peel CMP
OSDP2BP	8	Dual OSDP Reader 2 Pr. 22 AWG (7x30) TC Dual Power 4 Cond. 18 AWG (7x26) BC	OSDP Reader .023 in Foam FEP Dual Power .008 in PVC	OSDP Reader 100% Al. Foil Dual Power None	OSDP Reader White Dual Power Black	.472 x .492 in	OSDP Reader 13.5 pF/ft 120 Ω	Banana Peel CMP
AQCOSDP	14	OSDP Reader 1Pr. 22 AWG (7x30) TC 2 Cond. 18 AWG (7x26) BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	OSDP Reader .029 in Foam FEP .012 in PVC Door Contact .010 in PVC REX/Spare .010 in PVC Lock/Power .010 in PVC	OSDP Reader 100% Al. Foil None Door Contact None REX/Spare None Lock/Power None All Waterblocked	OSDP Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.592 in	OSDP Reader 13.5 pF/ft 120 Ω	Overall UV Resistant PVC Indoor/ Outdoor CM

Access Control Composite Cables

Wiegand Composite Designs

Overall Jacketed



Catalog No.	No. Of Cond.	Cond. Type & Nom. DCR	Insulation Type	Shielding	Jacket Type & Thickness	Nom. O.D	NEC Rating
AC1822	14	Wiegand Reader 6 Cond. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PP Door Contact .008 in PP REX/Spare .008 in PP Lock/Power .008 in PP	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.440 in	Overall PVC CMR
AC251822B	16	Wiegand Reader 6 Cond. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond.22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.435 in	Overall Flex Plenum PVC CMP
AC251822B3P	16	Wiegand Reader 3 Pr. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.445 in	Overall Flex Plenum PVC CMP
AC2518223PX	16	Wiegand Reader 3 Pr. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader White/Yellow Strip Door Contact White/Green Strip REX/Spare White/Red Strip Lock/Power White/Purple Strip	.445 in	Overall Flex Plenum PVC CMP
AQC1822	16	Wiegand Reader 6 Cond. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .010 in PVC Door Contact .010 in PVC REX/Spare .010 in PVC Lock/Power .010 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None Waterblocked	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.565 in	Overall UV Resistant PVC Indoor/ Outdoor CM

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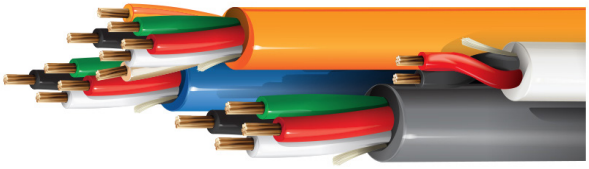

Wiegand Composite Designs

Banana Peel - Unjacketed

Catalog No.	No. Of Cond	Cond. Type & Nom. DCR	Insulation Type	Shielding	Jacket Type & Thickness	Nom. O.D	NEC Rating
BP251822B	18	Wiegand Reader 6 Cond. 22 AWG Shld BC Door Contact 4 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.407 in	Banana Peel CMP
BP251822B3P	16	Wiegand Reader 3 Pr. 22 AWG Shld BC Door Contact 2 Cond. 22 AWG (7x30) BC REX/Spare 4 Cond. 22 AWG (7x30) BC Lock/Power 4 Cond. 18 AWG (7x26) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.396 in	Banana Peel CMP
BP25XL1816	16	Wiegand Reader 3 Pr. 18 AWG Shld BC Door Contact 2 Cond. 18 AWG (7x26) BC REX/Spare 4 Cond. 18 AWG (7x26) BC Lock/Power 4 Cond. 16 AWG (19x29) BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact None REX/Spare None Lock/Power None	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.542 in	Banana Peel CMP
BP253PSH	16	Wiegand Reader 3 Pr. 22 AWG SHLD BC Door Contact 2 Cond. 22 AWG SHLD BC REX/Spare 4 Cond. 22 AWG SHLD BC Lock/Power 4 Cond. 18 AWG SHLD BC	Reader. .008 in PVC Door Contact .008 in PVC REX/Spare .008 in PVC Lock/Power .008 in PVC	Reader 100% Al. Foil Door Contact 100% Al. Foil REX/Spare 100% Al. Foil Lock/Power 100% Al. Foil	Reader Orange Door Contact White REX/Spare Blue Lock/Power Gray	.420 in	Banana Peel CMP