

Belden OSDP cables

The future of access control

Product Bulletin



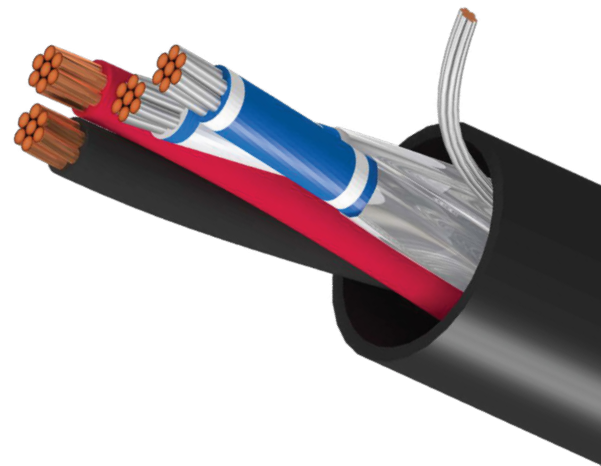
Belden's offering of OSDP Access Control Cables provide high levels of security, flexibility, convenience and performance to connect security and access control systems. Remain TIA-485 compliant at maximum supported baud rates and cable distances.

- Enhanced security to protect data
- Simple and quick implementation
- Low maintenance and added functionality

New EN/IEC LSZH Cca rated cables feature enhanced reaction to fire and are an economical solution to low-noise environments.

Key features

- Higher security levels against hacks and other threats
- Two-way communication
- Overall smaller cable with fewer conductors
- Advanced user interfaces
- Communication between different manufacturers
- Specification extendable to IP environments
- Enhanced flame performance with either UL plenum and up to Cca CPR rating as per EN50575

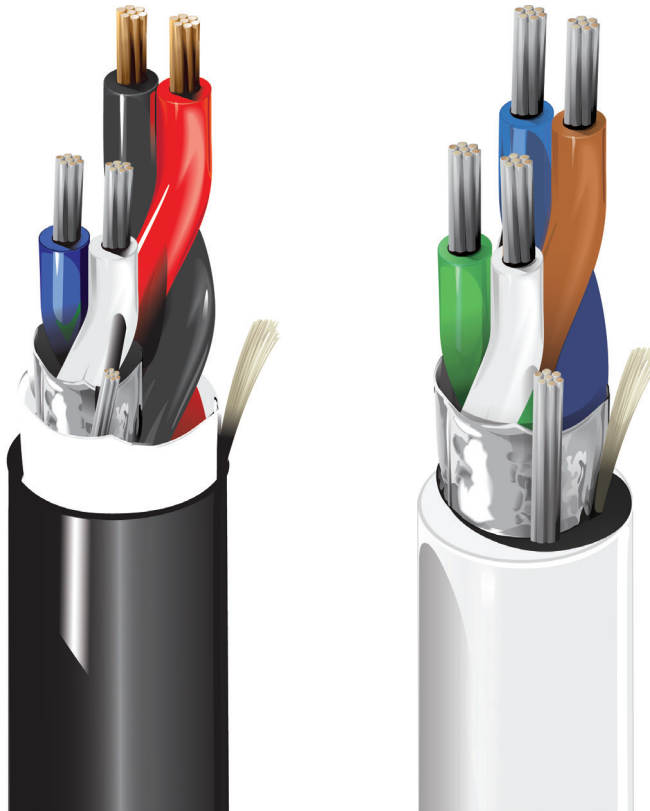


UL listed plenum

Part no.	No. of Cond	Cond type	Insulation type & thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance and impedance	Jacket colors
6640FD	1 Pair	24AWG (7×32) TC 26 Ohms/1000ft	Foam FEP .025"	Overall 100% Foil Shield	Flex Plenum .015"	.186"	CMP	10.8 pf/ft 120 Ohms	Orange
6540FD	1 Pair	22AWG (7×30) TC 16.3 Ohms/1000ft	Foam FEP .023"	Overall 100% Foil Shield	Flex Plenum .015"	.210"	CMP	13.5 pf/ft 120 Ohms	White, Black
6541FD	2 Pair	22AWG (7×30) TC 16.3 Ohms/1000ft	Foam FEP .023"	Overall 100% Foil Shield	Flex Plenum .016"	.292"	CMP	13.5 pf/ft 120 Ohms	White, Black
6641FD	2 Pair	24AWG (7×32) TC 26 Ohms/1000ft	Foam FEP .021"	Overall 100% Foil Shield	Flex Plenum .016"	.252"	CMP	13.5 pf/ft 120 Ohms	Black, Orange
6381MD	1 Pair	24AWG (7×32) TC 26 Ohms/1000ft	Foam FEP .025"	Overall 100% Foil Shield	Flex Plenum .020"	.215"	CMP	13.5 pf/ft 120 Ohms	Black, Orange and Gray
	2 Cond	18AWG (7×26) BC 6.2 Ohms/1000ft	PVC .010"	None					
6281MD	1 Pair	22 AWG (7×30) TC 16.3 Ohm/1000ft	Foam FEP .030"	Overall 100% Foil Shield	Flex Plenum .020"	.246"	CMP	13.5 pf/ft 120 Ohms	Black
	2 Cond	16AWG (19×29) BC 4.2 Ohms/1000ft	PVC .010"	None					
5381M1	1 Pair	22 AWG (7×30) TC 16.3 Ohm/1000ft	Foam PE Polyethylene .025"	Overall 100% Foil Shield	Waterblocking Tape UV Resistant PVC .032"	.272"	Indoor/ Outdoor CM	13.5 pf/ft 120 Ohms	Black
	2 Cond	18AWG (7×26) BC 6.2 Ohms/1000ft	PVC .010"	None					
6386MD	2 Pair	22 AWG (7×30) TC 16.3 Ohm/1000ft	Foam PE Polyethylene .023"	Overall 100% Foil Shield	Flex Plenum Black .020"	.541"	CMP	13.5 pf/ft 120 Ohms	2 Ind. Jacket cables Banana Peel
	4 Cond	18AWG (7×26) BC 6.2 Ohms/1000ft	PVC .008"	None					

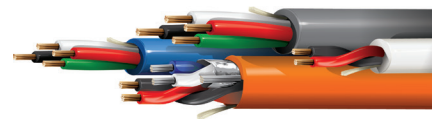
Color code

Part no.	Data pair	Power
6381MD 6281MD 5381MD	Blue, White	Black, Red
6640FD	Blue, White	
6541FD 6641FD	White, Green Brown, Blue	
6386MD	White, Green Brown, Blue	Black, Red, Gray, Blue



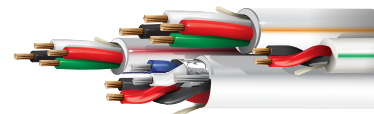
OSDP composite cable

OSDP reader w/power



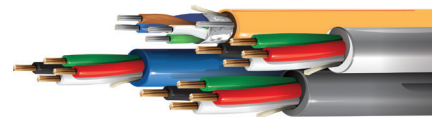
Part no.	Element type	No. of cond/pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
658HMS	OSDP Reader	1 Pair	24AWG (7×32) TC	Foam PE .029"	Overall 100% Foil Shield	Flex Plenum .020"	.215"	CMP	12.8pf/ft 120 Ohms	Orange
		2 Cond	18AWG (7×26) BC	PVC .010"	None					
	Door Contact	2 Cond	22AWG (7×30) BC	PVC .008"	None	UV Resistant PVC	.116"		34pf/ft	White
	Lock power	4 Cond	18AWG (7×26) BC	PVC .008"	None	UV Resistant PVC	.182"		27pf/ft	Gray
	REX/ Spare	4 Cond	22AWG (7×30) BC	PVC .008"	None	UV Resistant PVC	.136"		34pf/ft	Blue
Overall Jacket:	None - Banana Peel									
Overall Cable O.D.	.455"									

OSDP reader w/power



Part no.	Element type	No. of cond/pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
658JMS	OSDP Reader	1 Pair	22 AWG (7×30) TC	Foam PE .029"	Overall 100% Foil Shield	Flex Plenum .020"	.221"	CMP	12.8pf/ft 120 Ohms	White
		2 Cond	18AWG (7×26) BC	PVC .010"	None					
	Door Contact	2 Cond	22AWG (7×30) BC	PVC .008"	None	UV Resistant PVC	.116"		34pf/ft	White/ Green
	Lock power	4 Cond	18AWG (7×26) BC	PVC .008"	None	UV Resistant PVC	.182"		27pf/ft	White/ Orange
	REX/ Spare	4 Cond	22AWG (7×30) BC	PVC .008"	None	UV Resistant PVC	.136"		34pf/ft	White/ Red
Overall Jacket:	None - Banana Peel									
Overall Cable O.D.	.461"									

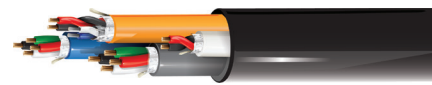
Dual OSDP reader



Part no.	Element type	No. of cond/pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
668AMD	OSDP Reader	2 Pair	24AWG (7×32) TC	Foam FEP .021"	Overall 100% Foil Shield	Flex Plenum .018"	.252"	CMP	13pf/ft 120 Ohms	Orange
	Door Contact	4 Cond	22AWG (7×30) BC	Plenum PVC .008"	None	Flex Plenum	.141"			White
	Lock power	4 Cond	18AWG (7×26) BC	Plenum PVC .010"	None	Flex Plenum	.182"			Gray
	REX/ Spare	4 Cond	18AWG (7×26) BC	Plenum PVC .010"	None	Flex Plenum	.182"			Blue
Overall Jacket:	None - Banana Peel									
Overall Cable O.D.	.472"									

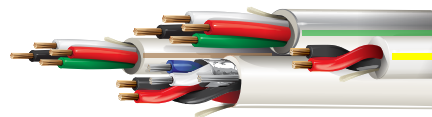


OSDP reader w/power indoor/outdoor



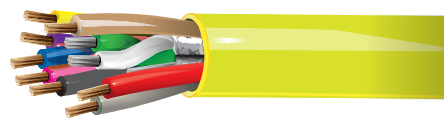
Part no.	Element type	No. of cond/pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
538HMD1	OSDP Reader	1 Pair	22AWG (7×30) TC	Foam PE .029"	Overall 100% Foil Shield	UV Resistant PVC .032"	.272"	Indoor/ Outdoor CM	13.5 pF/ft 120 Oms	Orange
		2 Cond	18AWG (7×26) BC	PVC .011"	Waterblock Tape					
	Door Contact	2 Cond	22AWG (7×30) BC	PVC .009"	Waterblock Tape	UV Resistant PVC	.168"			White
	Lock power	4 Cond	18AWG (7×26) BC	PVC .010"	Waterblock Tape	UV Resistant PVC	.232"			Gray
	REX/ Spare	4 Cond	22AWG (7×30) BC	PVC .010"	Waterblock Tape	UV Resistant PVC	.187"			Blue
Overall Jacket:	None - Banana Peel									
Overall Cable O.D.	.566"									

OSDP reader w/power extended distance



Part no.	Element type	No. of cond/ pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
638JMDS	OSDP Reader	1 Pair	22 AWG (7×30) TC	Foam PE .029"	Overall 100% Foil Shield	Flex Plenum .020"	.221"	CMP	12.8pf/ft 120 Ohms	White
		2 Cond	18AWG (7×26) BC	PVC .010"	None					
	Door Contact	4 Cond	22AWG (7×30) BC	PVC .008"	None	UV Resistant PVC	.136"		34pf/ft	White/ Brown
	Lock power	2 Cond	16 AWG (19×27) BC	PVC .010"	None	UV Resistant PVC	.176"		27pf/ft	White/ Yellow
	REX/ Spare	4 Cond	18 AWG (7×26) BC	PVC .008"	None	UV Resistant PVC	.189"		34pf/ft	White/ Green
Overall Jacket:	None - Banana Peel									
Overall Cable O.D.	.468"									

OSDP server cabinet locks



Part no.	Element type	No. of cond/pairs	Cond type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	NEC type	Nom. capacitance & impedance	Jacket colors
6408MD	OSDP Reader	1 Pair	22 AWG (7×30) TC	Foam PE .029"	Overall 100% Foil Shield	Flex Plenum .020"	.290"	CMP	12.8pf/ft 120 Ohms	Yellow
		8 Cond	20 AWG (7×28) BC	PVC .010"	None					

Color Code:

Data Pair:	White/Green
Power-Tamper:	Black, Red, Blue, Yellow, Violet, Pink, Gray, Tan

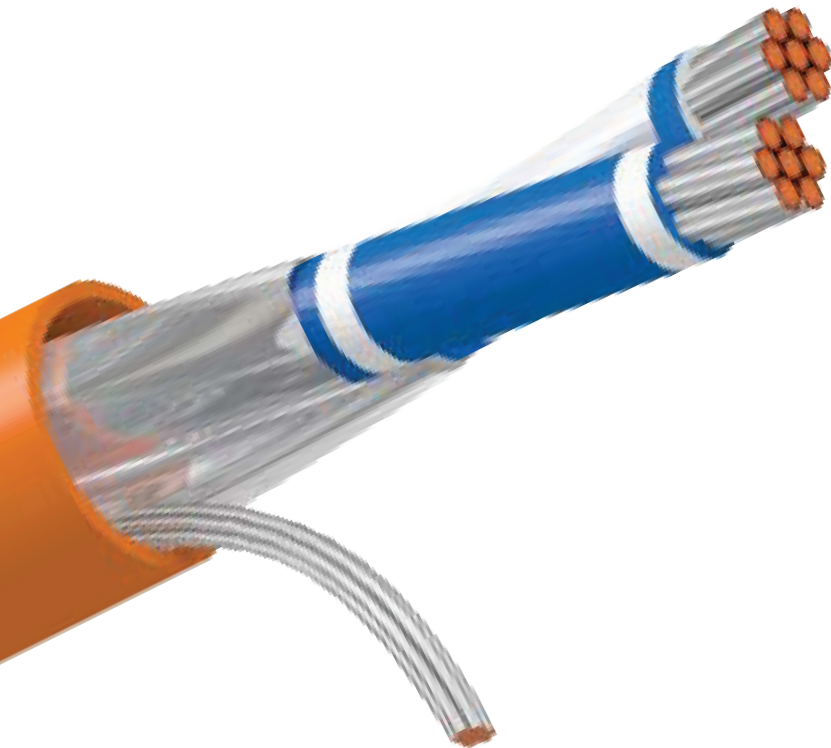


EN/IEC LSZH rated cables

Part no.	No. of Cond	Cond. type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	CPR Euroclass	Nom. capacitance & impedance	Jacket colors
4540FDW	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 1.1mm	5.1 mm	Cca	~40 pF/m 120 Ohms	Orange
4640FDW	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.6mm	4.1 mm	Cca	~40 pF/m 120 Ohms	Orange
4540FDZ	1 Pair	22 AWG	Foam PE 0.72mm	Overall 100% Foil Shield	LSZH 0.9mm	6.60 mm	Cca	~40 pF/m 120 Ohms	Orange
4540FDZ	1 Pair	22 AWG	Foam PE 0.72mm	Overall 100% Foil Shield	LSZH 0.6mm	6.3 mm	Eca	~40 pF/m 120 Ohms	Orange
4440FDW	1 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 0.9mm	7.2 mm	Cca	~40 pF/m 120 Ohms	Orange
4440FDZ	1 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 0.6mm	7.2 mm	Eca	~40 pF/m 120 Ohms	Orange
4340FDW	1 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 0.9mm	8.1 mm	Cca	~40 pF/m 120 Ohms	Orange
4340FDZ	1 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 0.7mm	8.1 mm	Eca	~40 pF/m 120 Ohms	Orange
4641FDV	2 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSNH Jkt	6.80 mm	B2ca	~40 pF/m 120 Ohms	Orange
4641FDW	2 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.9mm	6.80 mm	Cca	~40 pF/m 120 Ohms	Orange
4641FDZ	2 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.6mm	6.2 mm	Eca	~40 pF/m 120 Ohms	Orange
4541FDV	2 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSNH Jkt	N/A	B2ca	~40 pF/m 120 Ohms	Orange
4541FDW	2 Pair	22 AWG	Foam PE 0.65mm	Overall 100% Foil Shield	LSZH 1.1mm	7.80 mm	Cca	~40 pF/m 120 Ohms	Orange
4541FDZ	2 Pair	22 AWG	Foam PE 0.65mm	Overall 100% Foil Shield	LSZH 0.6mm	6.8 mm	Eca	~40 pF/m 120 Ohms	Orange
4441FDW	2 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	11.1 mm	Cca	~40 pF/m 120 Ohms	Orange
4441FDZ	2 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	11.1 mm	Eca	~40 pF/m 120 Ohms	Orange
4341FDW	2 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1mm	11.6 mm	Cca	~40 pF/m 120 Ohms	Orange
4341FDZ	2 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1mm	11.6 mm	Eca	~40 pF/m 120 Ohms	Orange
4642FDW	3 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 1.1mm	7.5 mm	Cca	~40 pF/m 120 Ohms	Orange
4642FDZ	3 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.6mm	6.5 mm	Eca	~40 pF/m 120 Ohms	Orange
4542FDW	3 Pair	22 AWG	Foam PE 0.6mm	Overall 100% Foil Shield	LSZH 1.1mm	8.4 mm	Cca	~40 pF/m 120 Ohms	Orange
4542FDZ	3 Pair	22 AWG	Foam PE 0.6mm	Overall 100% Foil Shield	LSZH 0.7mm	7.6 mm	Eca	~40 pF/m 120 Ohms	Orange
4442FDW	3 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	11.6 mm	Cca	~40 pF/m 120 Ohms	Orange
4442FDZ	3 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	11.6 mm	Eca	~40 pF/m 120 Ohms	Orange
4342FDW	3 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1mm	12.7 mm	Cca	~40 pF/m 120 Ohms	Orange
4342FDZ	3 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1mm	12.7 mm	Eca	~40 pF/m 120 Ohms	Orange
4643FDW	4 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 1.1mm	8.1 mm	Cca	~40 pF/m 120 Ohms	Orange
4643FDZ	4 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.7mm	7.3 mm	Eca	~40 pF/m 120 Ohms	Orange
4543FDW	4 Pair	22 AWG	Foam PE 0.6mm	Overall 100% Foil Shield	LSZH 1.1mm	10.2 mm	Cca	~40 pF/m 120 Ohms	Orange
4543FDZ	4 Pair	22 AWG	Foam PE 0.6mm	Overall 100% Foil Shield	LSZH 0.8mm	9.8 mm	Eca	~40 pF/m 120 Ohms	Orange
4443FDW	4 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	12.7 mm	Cca	~40 pF/m 120 Ohms	Orange
4443FDZ	4 Pair	20 AWG	Foam PE 0.82mm	Overall 100% Foil Shield	LSZH 1mm	12.7 mm	Eca	~40 pF/m 120 Ohms	Orange
4343FDW	4 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1.1mm	14.5 mm	Cca	~40 pF/m 120 Ohms	Orange
4343FDZ	4 Pair	18 AWG	Foam PE 0.9mm	Overall 100% Foil Shield	LSZH 1.1mm	14.5 mm	Eca	~40 pF/m 120 Ohms	Orange



Part no.	No. of Cond	Cond. type	Insulation type and thickness	Shielding	Jacket type & thickness	Nom. OD	CPR Euroclass	Nom. capacitance & impedance	Jacket colors
4381MDV	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.9mm	6.5 mm	B2ca	~40 pF/m 120 Ohms	Orange
	2 Cond	18 AWG	LSZH	none					
4381MDW	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.9mm	6.5 mm	Cca	~40 pF/m 120 Ohms	Orange
	2 Cond	18 AWG	LSZH	none					
4381MD	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.9mm	6.5 mm	Dca	~40 pF/m 120 Ohms	Orange
	2 Cond	18 AWG	LSZH	none					
4381MDZ	1 Pair	24 AWG	Foam PE 0.4mm	Overall 100% Foil Shield	LSZH 0.6mm	5.8 mm	Eca	~40 pF/m 120 Ohms	Orange
	2 Cond	18 AWG	LSZH	none				N/A	Orange



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