



# WIREMOLD® Steel Raceway

## Innovative Raceway Profile Provides Increased Wiring Capacity Available Factory Prewired

**Wiremold** introduces the next generation in innovative surface raceway systems. The new DS4000® Series Raceway systems provides an aesthetically and functionally superior alternative to existing raceway profiles. DS4000 Series Raceway is a dual service steel raceway, with twin covers and a built-in divider that provides full isolation of services. Because of the innovative features and fittings, this raceway saves on installation time, costs less to specify, and provides 1/3 more wiring capacity than conventional box-style raceway profiles.

With its increased capacity and unique downward-facing activation capabilities, DS4000 Series Raceway is an ideal solution for any commercial, institutional, or industrial application requiring a high capacity metal raceway.



DS4000™ Raceway in a contemporary office environment.



Sectioned view illustrating internal crossover capability, allowing adjacent downward facing power and data activations. Raceway profile meets or exceeds EIA/TIA bend radius requirements.



DS4000™ Series Raceway prewired with streamlined downward facing power and data activations.

Compatible with A/V devices.

## FEATURES & BENEFITS

4000 Designer Series™ Raceway represents a significant advancement in both the design and functionality of surface-mounted raceway systems. Design improvements not only make the raceway easier to install and wire, they result in a more functional, higher capacity system with a more appealing streamlined appearance. Unique adaptable fittings, multiple activation options, upgraded color options and a host of design improvements all contribute to the overall benefits and advantages of this innovative product. Listed below are the full range of improvements that have been incorporated into this industry-leading raceway system.

### SYSTEM

- **Innovative profile.** Accommodates greater wiring capacity and has a more aesthetic appearance than conventional box-shaped profiles. Design allows for more efficient use of raceway capacity and provides 1/3 more wiring capacity than conventional raceways including Wiremold 4000 Series™ Raceway.
- **Adaptable fittings.** Reduces the number of SKUs required for inventory making DS4000™ Series Raceway easier to specify, order, and inventory.
- **Ease of installation.** DS4000™ Raceway systems can be installed by a single installer, reducing installation costs and maximizing installer resources. Innovative fittings and features also save time and money on future adds and changes.
- **No-saw cut base design.** Raceway base and Adjust-to-Fit™ couplings eliminate precise cuts required during installation, saving installation time. Raceway base is scored so that it can be easily cut with tin snips when required.
- **Overlapping fittings and faceplates.** Simpler, cleaner, and more attractive installation. No visible screws. Also allows raceway covers to be cut to larger tolerances.
- **Field-configurable.** Installers can easily adapt and modify installations to accommodate unforeseen obstacles. Saves installation time and reduces cost overruns from ordering additional parts not originally specified.
- **Dual cover raceway.** True separation of services allows data and power installers to access their respective channels individually.
- **Full capacity channels.** Power and data can be fed through either raceway channel, with special cross-over fittings available to maximize raceway capacity and maintain separation of services.
- **Room to grow.** Generous bend radius and increased raceway capacity support newer and larger capacity Cat 6a cables. Raceway accommodates increased power and data requirements in installations.
- **Meets or exceeds industry standards.** Conforms to UL, NEC, and NEMA standards and EIA/TIA recommendations.
- **Greater range of standard colors.** DS4000™ Steel Raceway is available in an updated palette of colors including Designer Ivory, Designer Gray, and Matte Black. Custom colors are also available.

### BASE

- **Easy to cut.** Base sections are scored at four-inch [102mm] intervals and can be easily cut with tin snips (when required). Specialized cutting tools or saws are not needed.
- **Easy to mount.** Base sections have mounting holes at four inches [102mm] intervals. Installer can utilize them with both 16" or 24" [406mm or 610mm] framing. Combined with included Adjust-to-Fit™ couplings, this ensures that mounting holes line up with wall studs.
- **One-piece base and divider.** Divider has pre-scored knockouts for cabling crossovers. One-piece design reduces installation time.

- **Hardware included.** Each ten-foot [3.04m] section of base includes wire clips (8 clips, 4 pre-installed) and a pair of Adjust-to-Fit™ couplings. Adjust-to-Fit™ couplings are also included with all raceway fittings.

### FITTINGS

- **Streamlined fittings.** Innovative design eliminates large, bulky fittings that detract from raceway appearance.
- **Easy to install.** Adjust-to-Fit™ couplings (included) provide up to four inches [102mm] of lateral adjustment, eliminating the need for precision cuts and reducing waste caused by measuring errors.
- **Full-range of obstacle avoidance fittings.** Bypass large and small obstacles, as well as small offsets in supporting walls. Small obstacle avoidance fitting also can be used as a transition fitting to other Wiremold® metal raceway systems. Eliminates all barriers to installation.
- **Transition fittings.** Transition fittings connect DS4000™ Series Raceway to existing Wiremold 4000 Series Raceway installations or make transition to other Wiremold raceway systems (500 Series™, 700 Series™, 2400 Series™).
- **Cable bend radius control.** No need to order special fittings to meet bend radius compliance standards. All fittings include cable bend radius control and meet the specifications for Fiber Optic and UTP/STP cabling and exceed the TIA 569 requirements for communications pathways.
- **Tamper-proof.** Tamper-resistant fasteners are available to fully secure the raceway installation. Ideal for security systems, alarms or other security-sensitive installations.

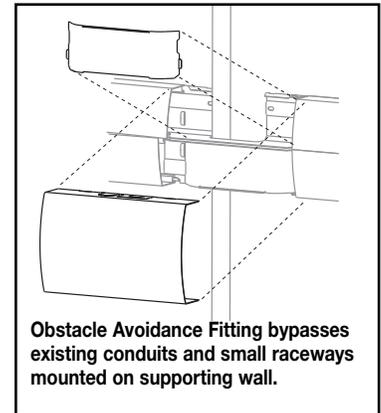
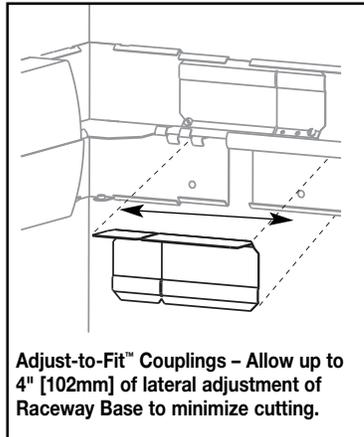
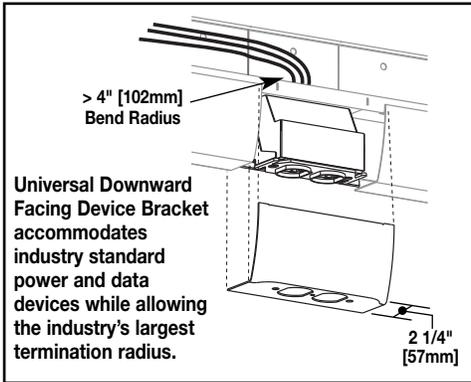
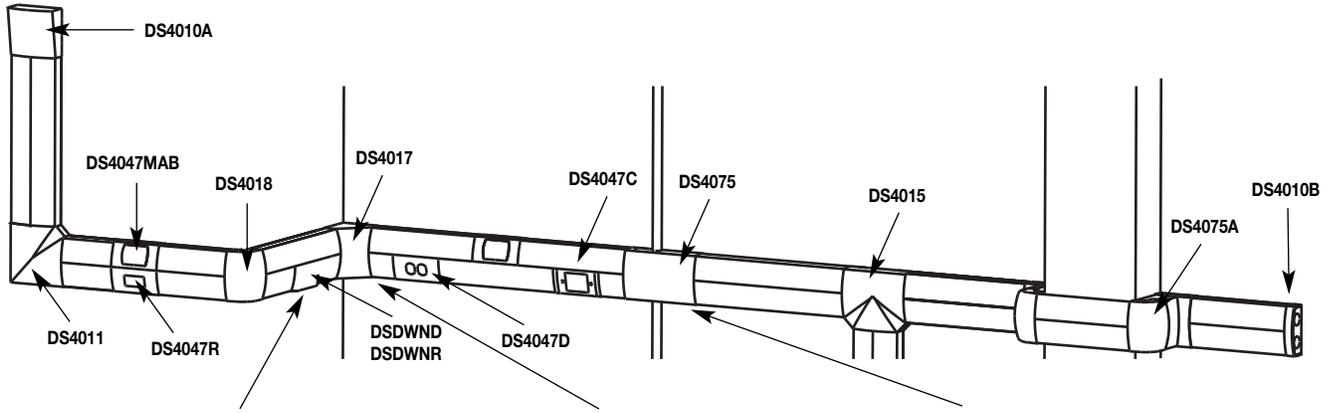
### ACTIVATIONS

- **Unique downward-facing activations.** Large bend radius for data cables and activations, streamlines the raceway appearance, and provides increased protection for both activations and cabling. Only raceway system that offers this feature.
- **Innovative downward-facing and/or side-channel activation features.** Raceway can be loaded with either downward-facing or conventional activations, or a combination of both as needed.
- **Cross-over feature.** Allows better utilization of raceway wiring capacity while maintaining separation of services.
- **Activations accept industry-standard devices and device plates.** Compatible with a full-range of wiring, data, and communication products.

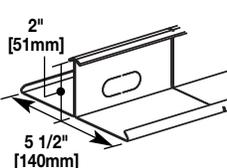
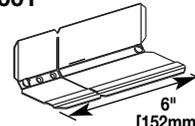
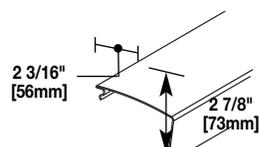
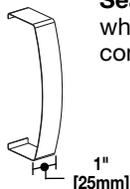
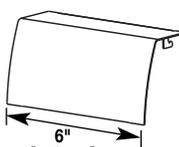
### PREWIRED

- **Available prewired.** DS4000™ Series Raceway can be ordered factory prewired saving installation time and money. Jobs are packed to individual job requirements and delivered on schedule to the job site.
- **Streamlined design.** Downward-facing activations provide a clean, streamlined appearance.
- **Visual circuit identification system included.** No need to order additional labels or marking systems.

## DS4000 Series Raceway System Layout

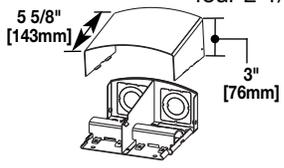
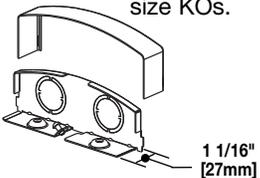
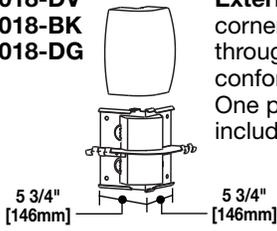
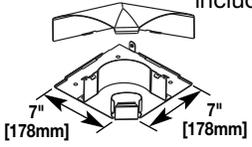
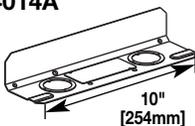
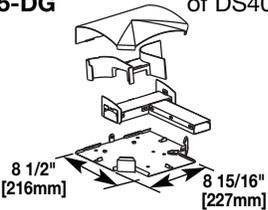
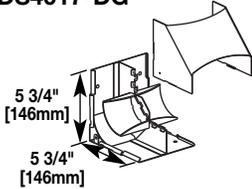
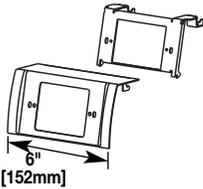


## DS4000 Series Raceway Ordering Information

Catalog No./Item	Description/Specifications	Catalog No./Item	Description/Specifications
<b>DS4000B</b> 	<b>Raceway Base</b> – .040" [1.0mm] galvanized steel. Base has two 9/32" [7.1mm] diameter mounting holes on centers of approximately 4" [102mm] and pass through KOs on 8" [203mm] centers throughout. Packed four 10' [3.05m] lengths per carton.	<b>DS4001</b> 	<b>Adjust-to-Fit™ Coupling</b> – For joining lengths of DS4000B together. Sold in pairs.
<b>DS4000C-DV</b> <b>DS4000C-BK</b> <b>DS4000C-DG</b> 	<b>Raceway Cover</b> – .040" [1.0mm] galvanized steel. Packed eight 5' [1.5m] lengths per carton.	<b>DS4006-DV</b> <b>DS4006-BK</b> <b>DS4006-DG</b> 	<b>Seam Clip</b> – For covering seams where two sections of DS4000C come together.
<b>DS4000WC</b> 	<b>Wire Clip</b> – For holding conductors in place.	<b>DS4006B-DV</b> <b>DS4006B-BK</b> <b>DS4006B-DG</b> 	<b>Half Seam Clip/Blank Faceplate</b> – For covering seams where two sections of DS4000C Cover come together. Can also be used as a blank faceplate.

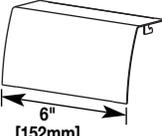
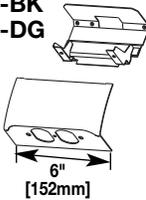
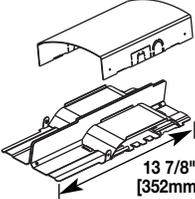
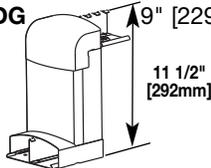
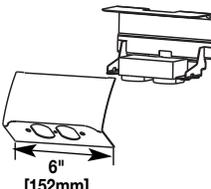
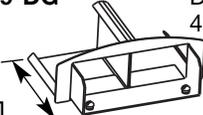
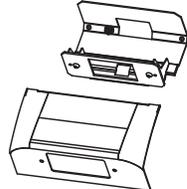
**NOTE:** "-DV" suffix indicates Designer Ivory color, "-DG" suffix indicates Designer Gray color and "-BK" suffix indicates Matte Black color.

## DS4000 Series Raceway Ordering Information (continued)

Catalog No./Item	Description/Specifications	Catalog No./Item	Description/Specifications	
<b>DS4010A-DV</b> <b>DS4010A-BK</b> <b>DS4010A-DG</b>	<b>Entrance End Fitting</b> – Full-capacity end fitting. Includes four 3/4" and 1 1/4" concentric trade size KOs and four 2 1/8" large capacity KOs.		<b>External Elbow</b> – 90° external corner for new lay-in or pull-through installations. Flexible base conforms to out-of-square corners. One pair of DS4001 Couplings included.	
<b>DS4010B-DV</b> <b>DS4010B-BK</b> <b>DS4010B-DG</b>	<b>Blank End Fitting</b> – For closing open end of DS4000B Raceway Base. Has two 3/4" and 1" trade size KOs.		<b>DS4018-DV</b> <b>DS4018-BK</b> <b>DS4018-DG</b>	
<b>DS4011-DV</b> <b>DS4011-BK</b> <b>DS4011-DG</b>	<b>Flat Elbow</b> – 90° flat corner for new lay-in or pull-through installations. One pair of DS40001 Couplings included.		<b>DS4047D-DV</b> <b>DS4047D-BK</b> <b>DS4047D-DG</b>	<b>Single Channel Duplex Device Plate</b> – For 15A and 20A duplex receptacles or 106 style data frames.
<b>DS4014A</b>	<b>Backfeed Coupling</b> – Extra long coupling allows attachment to wall box or back fed 1" or 1 1/4" trade size conduit.		<b>DS4047DQ-DV</b> <b>DS4047DQ-BK</b> <b>DS4047DQ-DG</b>	<b>Single Channel Duplex Device Plate w/One Duplex Installed</b> – Includes one Pass & Seymour 20A duplex receptacle with 6" [152mm] lead wires installed on bracket.
<b>DS4015-DV</b> <b>DS4015-BK</b> <b>DS4015-DG</b>	<b>Divided Tee Fitting</b> – For new lay-in or pull-through installations. Two pair of DS4001 Couplings included.		<b>DS4047R-DV</b> <b>DS4047R-BK</b> <b>DS4047R-DG</b>	<b>Single Channel Decorator Device Plate</b> – For 15A and 20A duplex receptacles, or 106 style data frames.
<b>DS4017-DV</b> <b>DS4017-BK</b> <b>DS4017-DG</b>	<b>Internal Elbow</b> – 90° internal corner for new installations. Flexible base conforms to out-of-square corners. One pair of DS4001 Couplings included.		<b>DS4047MAB-DV</b> <b>DS4047MAB-BK</b> <b>DS4047MAB-DG</b>	<b>Single Channel MAB Device Plate</b> – For all communication devices, including mini adapter bezels.
<b>DS4047C-DV</b> <b>DS4047C-BK</b> <b>DS4047C-DG</b>	<b>Single Channel NEMA Device Plate</b> – For Turnlok® and most straight blade devices up to 50 Amps. Use with commercially-available flush plates.			

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## DS4000 Series Raceway Ordering Information (continued)

Catalog No./Item	Description/Specifications	Catalog No./Item	Description/Specifications
<b>DS4006B-DV</b> <b>DS4006B-BK</b> <b>DS4006B-DG</b>	<b>Half Seam Clip/Blank Faceplate</b> – For covering seams where two sections of DS4000C Cover come together. Can also be used as a blank faceplate.	<b>DS4075-DV</b> <b>DS4075-BK</b> <b>DS4075-DG</b>	<b>Downward Extron® MAAP Device Plate</b> – Accepts two Extron® Electronics MAAP single space modules.
			<b>Small Obstacle/Transition Fitting</b> – For passing over previously installed conduits or raceways up to 2400 Series Raceway, or for transitioning to 500 Series™, 700 Series™ or 2400D Series™ Raceway.
<b>DSDWND-DV</b> <b>DSDWND-BK</b> <b>DSDWND-DG</b>	<b>Downward Duplex Device Plate</b> – For 15A and 20A duplex receptacles or 106 style data frames.	<b>DS4075A-DV</b> <b>DS4075A-BK</b> <b>DS4075A-DG</b>	<b>Offset Fitting</b> – For use on wall offsets or column depths up to 9" [229mm].
<b>DSDWNDQ-DV</b> <b>DSDWNDQ-BK</b> <b>DSDWNDQ-DG</b>	<b>Downward Duplex Device Plate w/One Duplex Installed</b> – Includes one Pass & Seymour 20A duplex receptacle with 6" [152mm] wire leads installed on bracket.		
	<b>DSDWNR-DV</b> <b>DSDWNR-BK</b> <b>DSDWNR-DG</b>	<b>DS4089-DV</b> <b>DS4089-BK</b> <b>DS4089-DG</b>	<b>Adapter to 4000 Series Raceway</b> – For transitioning in-line from DS4000 Series Raceway to 4000 Series Raceway.
	<b>Downward Decorator Device Plate</b> – For 15A and 20A duplex receptacles, GFCI and Surge devices, or 106 style data frames.		
<b>DSDWNX</b>	<b>Crossover Kit</b> – Includes enclosures for power or data crossover.	<b>DSTRK</b>	<b>Tamper-Resistant Kit</b> – Includes 25 screws and bit to secure fitting covers to DS4000B Raceway Base.
		<b>640DS</b>	<b>DS4000C Cutter</b> – Portable cover cutter provides clean square cuts for DS4000C Raceway Cover.
<b>DSDWNS-DV</b> <b>DSDWNS-BK</b> <b>DSDWNS-DG</b>	<b>Downward Ortronics® Series II Device Plate</b> – Accepts one Ortronics® Series II module.	<b>650RT</b>	<b>Fitting Cover Removal Tool</b> – Allows for easy removal of all installed DS4000C Raceway Covers without damaging finish.
			
		<b>DVWE-S</b> <b>DGWE-S</b> <b>BKWE-S</b>	<b>Spray Paint</b> – Used to touch up large areas. <b>NOTE:</b> Can only be shipped via ground transportation.
			
		<b>DVWE-P</b> <b>DGWE-P</b> <b>BKWE-P</b>	<b>Touch-Up Paint Pen</b> – Used to touch up small areas.
			

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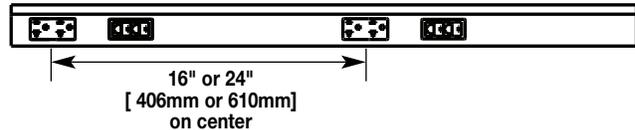
## DS4000 Series Raceway Prewired Raceway Features

FEATURES	STANDARD	OPTIONS
<b>Communication Devices</b>	Ortronics or Pass & Seymour Activate Connectivity System Devices	Other manufacturers
<b>Electrical Devices</b>	Pass & Seymour	Other manufacturers and some International devices
<b>Base Length</b>	Longest = 10' [2.54m], shortest = 1' [305mm]	—
<b>Installation</b>	Surface mounted	Downward Facing Activations; Front Facing Activations
<b>Finish</b>	Baked enamel finish – Designer colors	Custom colors
<b>Wire Type</b>	THHN stranded	Options per specification
<b>Wiring Splices</b>	Insulation displacement connectors	Continuous wiring or twist-on wire connector
<b>Grounding Conductors</b>	Wire gauge per National Electrical Code (NEC) and shared grounding wires	Oversized and/or separate grounding wires
<b>Device Identification</b>	Gray self-adhesive polyester label with black letters	Self-adhesive engraved nameplate
<b>Neutrals</b>	Shared neutral	Oversized and/or separate neutral wires
<b>Pigtails</b>	12" [305mm] feeds and receptacle leads	Per specification
<b>Conduit Feeds</b>	Raceway drilled at job site	Entrance end cap
<b>Record Drawings</b>	3 sets and 2 copies of marked-up blueprints	Per job requirements
<b>Submittal Services</b>	Detailed submittal	Submittal free

## DS4000 Series Raceway Prewired Downward Device Options

Flush downward facing power and data are available in the following single or multi-circuit 20A configurations:

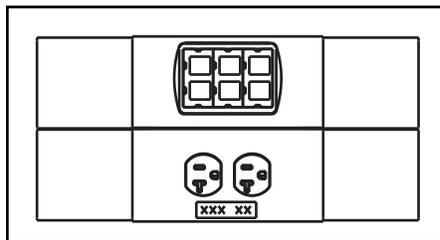
DATA
POWER



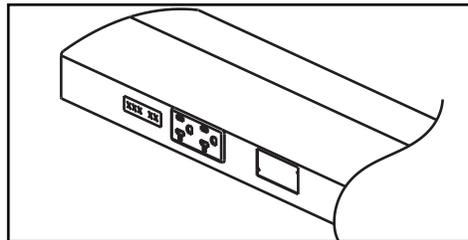
**NOTE:** Top channel Should be reserved for data to provide highest capacity and bend radius. Standard forward facing faceplates can be intermixed with prewired, but are subject to location restrictions due to the location of downward facing data. Consult factory for recommended locations.

## Device and Raceway Labeling Detail for Prewired Applications

- Device labeling is available in the following materials:
  - Gray self-adhesive polyester label with black lettering (standard).
  - Other color self-adhesive polyester labels.
  - Engraved phenolic nameplates with adhesive backing.
- The back of the raceway is labeled with the raceway number and the room or area number(s).



Labeling detail using the front activation plates.



Labeling detail using the downward facing activation plates.

## DS4000 Series Raceway Ordering Specifications for Prewired Applications

Two options available when ordering a prewired job:

- 1. Detailed Submittal** The detailed submittal will show exactly how each raceway run will be built including lengths, number and type of receptacles, wiring schematics, circuiting information, etc. The contractor and/or distributor must review, clarify any information not clearly indicated on the drawings or specs, approve, and return to the factory before production can begin.
- 2. Submittal Free** The Prewired Express Building Plan Checklist is filled out by the contractor or distributor and sent along with plans, casework, and specs to the factory. No submittal is required and the project is scheduled for production upon receipt of all necessary information.

## DS4000 Series Raceway Wire Fill Capacity Charts

### DS4000 Raceway Wire Fill Capacities for Power

WIRE SIZE THHN/THWN	O.D. Inches [mm]		NUMBER OF CONDUCTORS (40% FILL)				
			WITHOUT DEVICES	w/DUPLEX RECT. DEVICES 1.59in. <sup>2</sup> [1025mm <sup>2</sup> ]	w/SURGE/GFCI DEVICES 2.30in. <sup>2</sup> [1485mm <sup>2</sup> ]	w/LARGE SINGLE DEVICES 3.00in. <sup>2</sup> [1935mm <sup>2</sup> ]	40% FILL w/DOWNWARD ACTIVATION/CROSSOVER
14 AWG	0.111	[2.8]	206	141	111	83	46
12 AWG	0.130	[3.3]	150	103	81	60	33
10 AWG	0.164	[4.2]	95	64	51	38	21
8 AWG	0.216	[5.5]	54	37	29	22	12
6 AWG	0.254	[6.5]	39	27	21	15	8

**NOTE:** For additional information, refer to the Technical Section of the current version of ED439 (Wiremold Product Guide).

### DS4000 Raceway Wire Fill Capacities for Communication

CABLE TYPE	CATEGORY/ DESIGNATION	O.D.		40% FILL 1/2 COMPARTMENT	40% FILL w/DOWNWARD ACTIVATION/CROSSOVER
		Inches	[mm]		
UNSHIELDED TWISTED PAIR	4-pair, 24 AWG Cat 3	0.190	[4.8]	70	28
	4-pair, 24 AWG Cat 5e	0.210	[5.3]	57	23
	4-pair, 24 AWG Cat 6	0.250	[6.3]	40	16
	4-pair, 24 AWG Cat 6a*	0.354	[9.0]	20	8
	25-pair, 24 AWG	0.410	[10.4]	15	6
COAXIAL	RG6/U	0.270	[6.9]	35	14
FIBER	ZipCord	0.118 x 0.236	[3 x 6]	72	29
	Round 4 Strand Fiber	0.187	[4.8]	73	29
	Round 6 Strand Fiber	0.256	[6.5]	38	15

\*Category 6 Augmented cable for 10 gigabit ethernet – max allowed cable diameter per Addendum 11 to ANSI/TIA-568-B.2.

### Prewired DS4000 Cover Wire Fill Capacities with Downward Facing Power & Data Devices

WIRE SIZE THHN/THWN	O.D. Inches [mm]	NO OF CONDUCTORS 40% FILL
14 AWG	0.111 [2.8]	31
12 AWG	0.130 [3.3]	23
10 AWG	0.164 [4.2]	14
8 AWG	0.216 [5.5]	8
6 AWG	0.254 [6.5]	6

**NOTE:** Prewired downward facing covers are punched in line for a sleek flush look. Power conductors are provided in the lower channel. Additional wires can be added and should not exceed totals above. Communications are to be installed in the top channel – refer to standard cable fill chart for capacities.

### DS4000 Raceway Fittings Wire Fill Capacity Chart

WIRE SIZE THHN	O.D. Inches [mm]	DS4010A*		DS4011		DS4015		DS4017**		DS4018**		DS4075		DS4075A**			
		40%	60%	40%	60%	40%	60%	40%	60%	40%	60%	40%	60%	40%	60%		
THHN	14	0.111	[2.8]	125	187	171	256	62	93	160	239	142	213	106	160	142	213
	12	0.130	[3.3]	91	137	125	187	45	68	116	175	104	156	78	116	104	156
	10	0.164	[4.2]	57	86	78	118	28	43	73	110	65	98	49	73	65	98
	8	0.216	[5.5]	33	50	45	68	16	25	42	63	38	57	28	42	38	57
	6	0.254	[6.5]	24	36	33	49	12	18	31	46	27	41	20	31	27	41
UTP	2-pair, 24 AWG	0.150	[4.8]	68	103	94	140	49	74	87	131	78	117	58	87	78	117
	4-pair, 24 AWG Cat 3	0.190	[4.8]	43	64	58	87	31	46	55	82	49	73	36	55	49	73
	4-pair, 24 AWG Cat 5e	0.210	[5.3]	35	52	48	72	25	38	45	67	40	60	30	45	40	60
	4-pair, 24 AWG Cat 6	0.250	[6.3]	25	37	34	51	18	27	32	47	28	42	21	32	28	42
	4-pair, 24 AWG Cat 6a*	0.354	[9.0]	12	18	17	25	9	13	16	24	14	21	10	16	14	21
25-pair, 24 AWG	0.410	[10.4]	12	18	16	24	9	13	15	23	14	20	10	15	14	20	
Coaxial	RG6/U	0.270	[6.9]	21	32	29	43	15	23	27	41	24	36	18	27	24	36
Fiber	ZipCord	0.118 x 0.236	[3 x 6]	44	65	59	89	31	47	56	83	50	74	37	56	50	74
	Round 4 Strand Fiber	0.187	[4.8]	44	66	60	90	32	48	56	85	50	75	38	56	50	75
	Round 6 Strand Fiber	0.256	[6.5]	24	35	32	48	17	26	30	45	27	40	20	30	27	40

\* Entrance end fitting fill rate is calculated using backfeed capability and radius inserts. Inserts are removable and fitting can obtain maximum raceway fill from utilizing end fitting knockouts and removing radius control inserts.

\*\*Calculated using radius control inserts. Inserts are factory installed and may be removed in order to obtain full raceway capacity if radius control is not required.



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