



# WIREMOLD®

## AL4520 Series Isoduct™ Aluminum Raceway

### Prewired Two-Piece Aluminum Raceway With Connectivity Capacity

Isoduct™ AL4520 Series Raceway is a cost-effective, highly aesthetic solution that provides access to your communication cabling and electrical wiring systems. The two-channel, dual-cover raceway is manufactured in our factory, cut to the specified job site lengths, electrically prewired, and is available with connectivity activation inserts mounted in the raceway or with pre-punched activation openings.

Inserts are available to interface with UTP, STP, fiber optic, coax, and other cabling types.



AL4520 Series Aluminum Raceway.

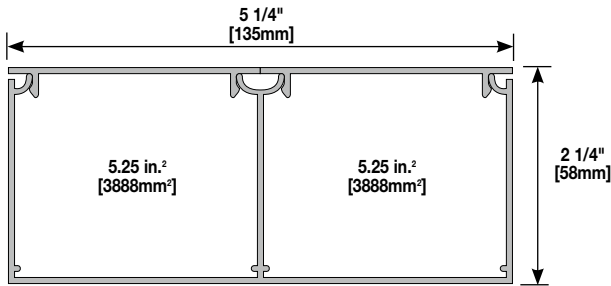
#### FEATURES & BENEFITS

- **Two-Channel, Dual-Cover, 2 1/4" [58mm] deep aluminum raceway.** Accommodates high density communication cabling for networks and phone systems.
- **Snap fit cover.** Provides maximum flexibility for adding or relocating circuits, data openings or electrical devices. Side removal slots limit visibility of any accidental marring during cover removal.
- **Durable, architectural clear anodized finish.** Wipes clean and resists corrosion. Custom colors available upon request. Consult factory for more information.
- **Accommodates standard electrical wiring devices.** Accommodates most installations including single outlets, duplex outlets, NEMA-Locking outlets, GFCI outlets, and Pass & Seymour surge protected outlets.
- **Electrical device identification with self-adhesive polyester labels or optional engraving.** No guesswork or time consuming tracing of circuits. Speeds circuit additions and renovations. (See Device and Raceway labeling Options)
- **Mitered standard fittings.** Provides a complete installation.
- **Increased productivity for the contractor.** Jobs can be packaged by area, floor, or building and shipped per job site requirements.
- **Datacom connectivity options.** Accepts industry standard and proprietary devices from a wide range of manufacturers to provide a seamless and aesthetically pleasing interface for voice, data, audio, and video applications at the point of use.
- **UL5 and ADA Compliant.** Raceway and fittings meet UL5 specifications and can be installed in conformance with ADA requirements.
- **UL Listed commercial outlet centers.** File E317375 Multioutlet assemblies rated to 20A maximum can be provided with listed cord and plug assemblies. These assemblies are optimal for mounting to semi-permanent structures such as shelving and rack displays found in many lab applications.
- **UL and cUL Listed component raceways.** File 4376 Guide RJBT, Fittings: File E41751 Guide RJPR. Meets Article 386 of NEC and meets Section 12-600 of CEC.
- **UL and cUL Listed multioutlet assemblies.** File E15191 Guide PVGT, Fittings: File E41751 Guide RJPR. Meets Article 380 of NEC and meets Section 12-3032 of CEC.

Prewired Raceway is prewired and packed to the job specifications at the factory before shipping to the jobsite.

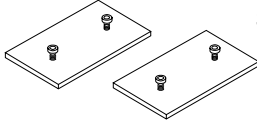
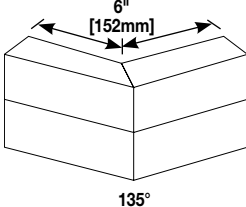
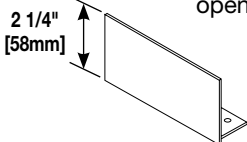
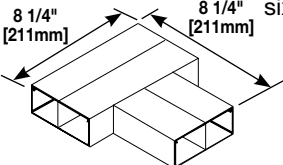
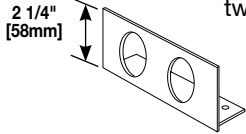
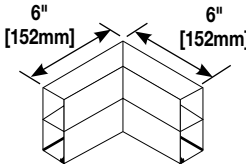
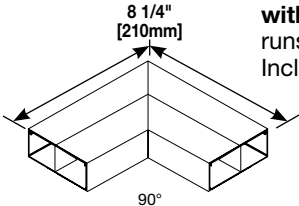
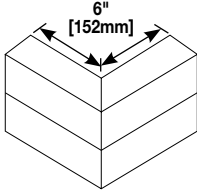
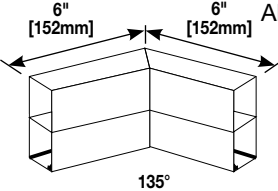


## AL4520 Prewired Aluminum Raceway Specifications



**Material:** 6063 T6 Aluminum Alloy  
**Wall Thickness:** 0.078" [1.99mm]  
**Anodized Finish Thickness:** 0.004" [0.10mm]

## AL4520 Prewired Aluminum Raceway Fittings

Catalog No./Item	Description/Specifications	Catalog No./Item	Description/Specifications
AL4501	<b>Slide Coupling</b> – Connects adjoining sections of AL4520 Series Raceway base. 	AL4512B	<b>45° External Mitered Elbow with Coupling</b> – Makes 45° external turns in runs of AL4520 Series Raceway. Includes four (4) AL4501 Couplings. 
AL4510B	<b>Blank End Cap</b> – Closes off open end of raceway. 	AL4515	<b>Flat Tee with Coupling</b> – Makes branch connections of two runs of AL4520 Series Raceway. Includes six (6) AL4501 Couplings. 
AL4510B2	<b>Entrance End Cap with two 1 1/16" Provisions</b> – End Cap with two connections for 3/4" conduit. 	AL4517	<b>Internal Mitered Elbow with Coupling</b> – Makes 90° internal turns in runs of AL4520 Series Raceway. Includes four (4) AL4501 Couplings. 
AL4511	<b>90° Flat Mitered Elbow with Coupling</b> – Makes 90° turns in runs of AL4520 Series Raceway. Includes four (4) AL4501 Couplings. 	AL4518	<b>External Mitered Elbow with Coupling</b> – Makes 90° external turns in runs of AL4520 Series Raceway. Includes four (4) AL4501 Couplings. 
AL4512A	<b>45° Internal Mitered Elbow with Coupling</b> – Makes 45° internal turns in runs of AL4520 Series Raceway. Includes four (4) AL4501 Couplings. 		

**NOTE:** Custom fittings are available – contact factory for more information.

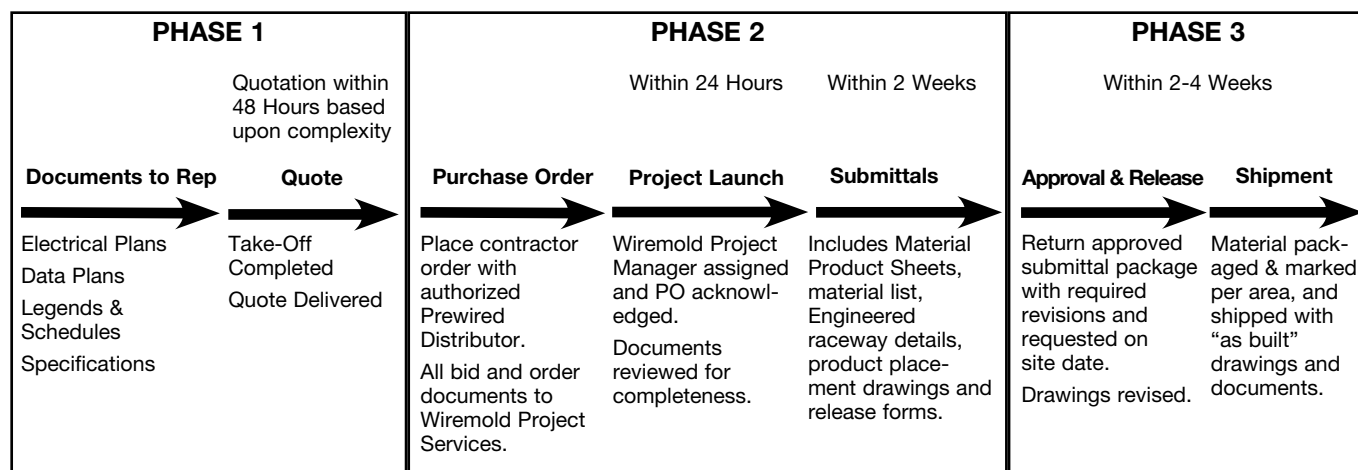
## AL4520 Prewired Aluminum Raceway Features

FEATURES	STANDARD	OPTIONS
Communication Devices	Ortronics & Activate Connectivity System Devices	Other manufacturers
Electrical Devices	Pass & Seymour	Other manufacturers
Cover Length	12" [305mm] or 18" [457mm]	24" [610mm], 36" [914mm], custom or continuous
Body Length	Longest = 10' [3.05m], shortest = 1' [305mm]	
Installation	Surface mounted	Flush mounted (recessed)
Finish	Architectural Class II Clear Anodized	Custom colors available, consult factory.*
Fittings	Mitered	Butt joints or custom
Wire Type	THHN Stranded	Options per specification
Wiring Splices	Insulation displacement connectors	Continuous wiring or twist-on wire connector
Grounding Conductors	Wire gauge per National Electrical	Oversized and/or separate grounding wires Code (NEC) and shared grounding wires
Device Identification	Clear self-adhesive polyester label with black letters	Engraved covers, self-adhesive engraved nameplate, colored self-adhesive polyester labels with black letters
Neutrals	Shared neutral	Oversized and/or separate neutral wires
Pigtails	12" [305mm] feeds and receptacle leads	Per specification
Conduit Feeds	Raceway drilled at job site with hole saw	Entrance end cap
Device Mounting	Mounted to cover with 2 counter-sunk #6-32 screws	Device mounting brackets
Record Drawings	3 sets and 2 copies of marked-up blueprints	Per job requirements
Submittal Services	Detailed Submittal	Express Submittal or Submittal Free

\* Paint chip required for custom colors.

## AL4520 Ordering Process for Prewired Applications

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



Prewired Raceway gets installers off the job in 1/3 less time than conventional raceway installations.



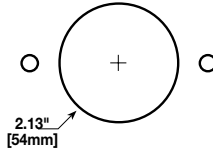
Wiremold Prewired Raceway is available in a wide range of capacity and configuration options.

## AL4520 Device Openings

### Single Receptacle (30A & 50A Straight Blade)

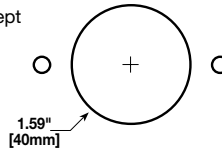
5-30R 7-30R  
5-50R 7-50R  
6-30R 10-30R  
6-50R 10-50R

**Adapter box  
required for  
all receptacles**



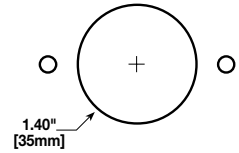
### Single Receptacle (NEMA Locking Devices)

Accommodates All NEMA  
Locking Devices except  
L5-15R, L6-15R,  
and L7-15R



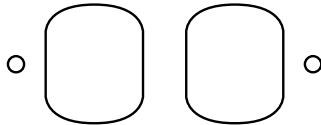
### Single Receptacle (15A & 20A Straight Blade & Locking)

5-15R 15-20R  
5-20R 18-20R  
6-15R L5-15R  
6-20R L6-15R  
10-20R L7-15R  
14-20R



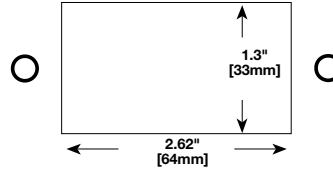
### Duplex

5-15R L5-15R  
5-20R L6-15R  
6-15R L7-15R  
6-20R

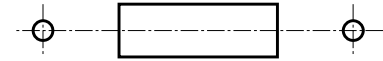


### Rectangular Openings

Decorator Style  
Rectangular GFCIs  
Rectangular Surge  
Protection Receptacles



### Single-Gang Switch



## AL4520 Device Compatibility

### NEMA Locking Compatibility

All of the following NEMA locking devices will fit.

L5-15R	L6-15R	L7-15R	L8-20R	L10-20R	L12-20R	L14-20R	L16-20R	L18-20R	L20-20R	L22-20R
L5-20R	L6-20R	L7-20R	L8-30R	L10-30R	L12-30R	L14-30R	L16-30R	L18-30R	L20-30R	L22-30R
L5-30R	L6-30R	L7-30R	L9-20R	L11-20R	L13-20R	L15-20R	L17-20R	L19-20R	L21-20R	L23-20R
			L9-30R	L11-30R	L13-30R	L15-30R	L17-30R	L19-30R	L21-30R	L23-30R

### NEMA Straight Blade Compatibility

5-15R	5-20R	5-30R	5-50R	6-20R	6-30R	6-50R	7-30R	7-50R	10-20R	10-30R	10-50R	14-20R	14-30R
Y	Y	1	1	Y	1	1	1	1	Y	1	1	Y	N
14-50R	14-60R	15-20R	15-30R	15-50R	15-60R	18-20R	18-60R	GFCI	SURGE				
N	N	Y	N	N	N	Y	N	Y	Y				

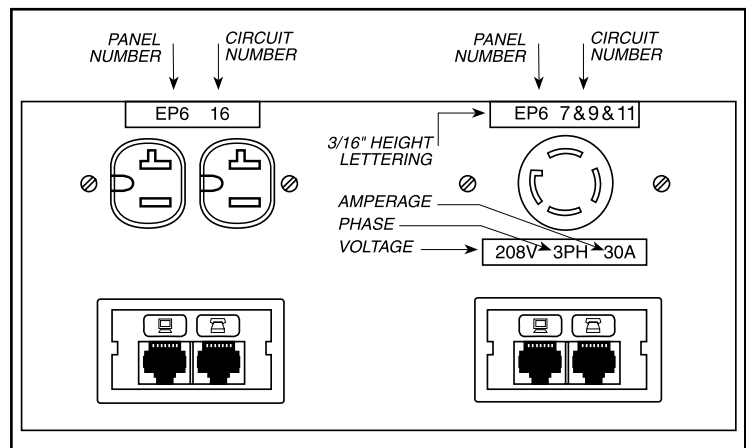
Y= will fit

N= will not fit

1. Requires adapter box.

## Device and Raceway Labeling Detail for Prewired Applications

- Device labeling is available in the following materials:
  - Clear self-adhesive polyester labels
  - Other color self-adhesive polyester labels.
  - Engraving of covers with black lettering.
  - Engraved phenolic nameplates with adhesive backing.
- The back of the raceway is labeled with the raceway number and the room or area number(s).
- Data and power requirements can be switched with data on top and power on bottom.



## AL4520 Wire Fill Capacity Charts

### AL4520 Raceway Wire Fill Capacities for Data/Communication

CABLE/WIRE TYPE		O.D.		AL4400	AL4520**	ALA4750	ALA3800	ALA4800**	AL7450	
		Inches	[mm]	40%	40%	40%	40%	40%	TOP 40%	BOTTOM 40%
UNSHIELDED TWISTED PAIR	4-pair, 24 AWG Cat. 3	0.190	[4.8]	66	84	69	86	86	71	66
	4-pair, 24 AWG Cat. 5e	0.210	[5.3]	55	69	57	70	70	58	55
	4-pair, 24 AWG Cat. 6	0.250	[6.4]	38	48	40	50	50	41	38
	4-pair, 24 AWG Cat. 6a*	0.354	[9.0]	19	24	20	25	25	20	19
	25-pair, 24 AWG	0.360	[9.1]	19	23	19	24	24	20	19
COAXIAL	RG6/U	0.270	[6.9]	33	41	34	43	43	35	33
FIBER OPTIC	ZipCord	0.118 x 0.236	[3 x 6]	68	85	70	88	88	72	68
	Round 4 Strand Fiber	0.187	[4.7]	69	87	71	89	89	73	69
	Round 6 Strand Fiber	0.256	[6.5]	37	46	38	47	47	39	37

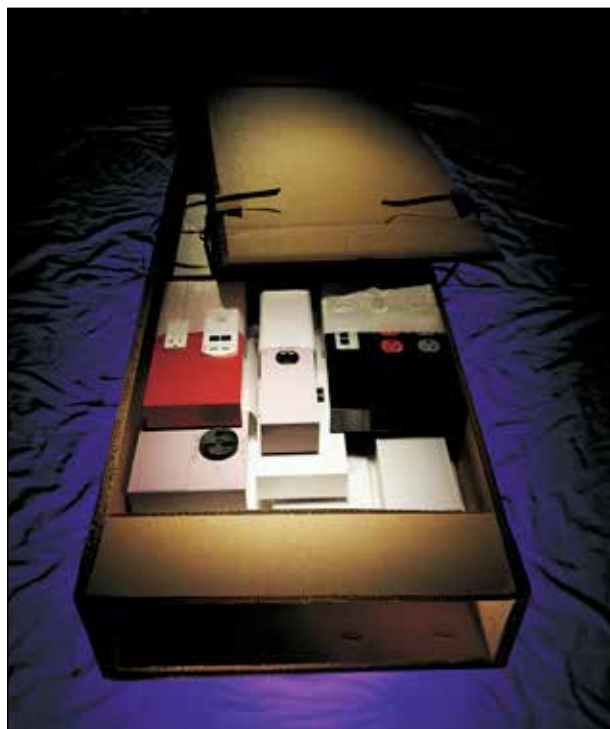
\* Category 6 augmented (6a) cable for 10 gigabit ethernet – max allowed cable diameter per addenda No. 11 ANSI TIA/EIA 568-B.2.

\*\* Each compartment.

### AL4520 Raceway Wire Fill Capacities for Power (40% Fill Factor)

WIRE SIZE THHN (STRANDED)		ALA3800	AL4400*	AL4520*	AL4750	AL7450		AL4800*
						Single	Dual*	
POWER WIRING WITHOUT DEVICES	8 AWG	41	50	54	35	53	49	41
	10 AWG	56	87	110	61	108	101	56
	12 AWG	98	139	172	97	170	159	98
POWER WIRING WITH GFCI DEVICES	8 AWG	30	28	32	13	31	27	30
	10 AWG	42	49	65	22	64	57	42
	12 AWG	73	77	102	35	100	89	73

\* Each compartment



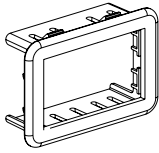
Wiremold Prewired Raceway reduces installation time, gets installers off the job faster, and eliminates the need for field cutting.

Contact your local Wiremold Representative or the factory for more information on prewired raceway and assistance in planning your next prewired installation. Our Prewired Raceway Team is ready to help.

## Communication Adapters

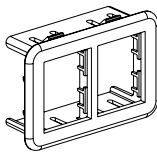
### Ortronics

#### ABS2



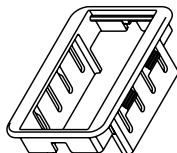
Accepts One  
Series II Module

#### AB2TJ



Accepts Two  
TracJack Modules

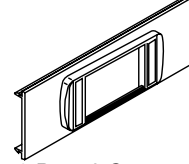
### CM-2AB



Accepts One  
Activate 2A Module

### Pass & Seymour/Ortronics

#### Low Profile Adapter (LPB)

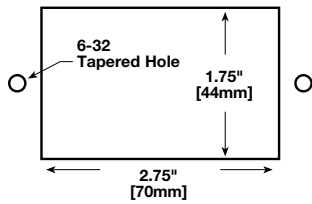


LPB – Accepts 3 Pass & Seymour Activate Inserts  
LPB3S2 – Accepts 3 Ortronics Series II Inserts

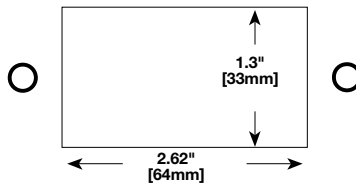
**NOTE:** Custom openings are also available – consult factory for more information.

## AL4520 Communication Openings

### Wallplate Openings

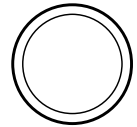


### Rectangular Openings

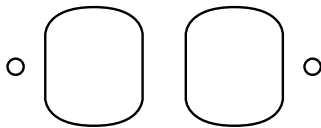


### Grommet Openings

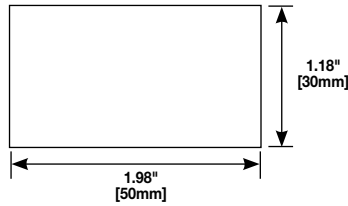
1/4" [6.4mm] Inner Diameter  
1/2" [12.7mm] Inner Diameter  
3/4" [19.1mm] Inner Diameter  
Standard  
1" [25mm] Inner Diameter



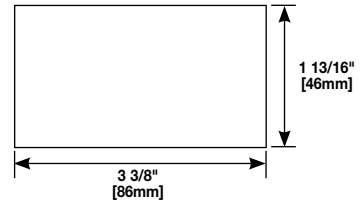
### Duplex for Data



### AB Adapter Openings



### Low or High Profile Adapter Openings



**NOTE:** Custom openings are also available - consult factory for more information.



## NOTES



### Electrical Wiring Systems

60 Woodlawn Street  
West Hartford, CT 06110  
Phone: 1.877.BY.LEGRAND (295-3472)  
[www.legrand.us](http://www.legrand.us)

570 Applewood Crescent  
Vaughan, Ontario L4K 4B4  
Phone: 905.738.9195  
[www.legrand.ca](http://www.legrand.ca)

