

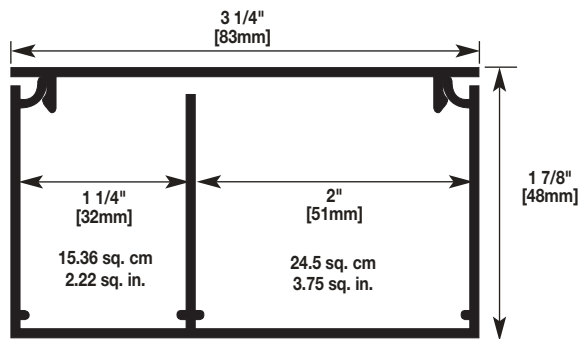
## Two-Channel Prewired Aluminum Raceway System

AL4750 Two-Channel, One-Cover, Prewired Raceway is a cost effective, highly aesthetic solution to provide access to your communication cabling and electrical wiring systems.

The raceway is manufactured in our factory, cut to the specified job site lengths, electrically prewired, and comes 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.

AL4750 Raceway meets most installation requirements for electrical wiring.



Raceway Dimensions

### FEATURES & BENEFITS

- **Prewired raceway.** Manufactured to specified job site lengths, electrically prewired and assembled – ready to install. Reduces on-site installation time and costs.
- **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.
- **Mitered standard fittings.** Provides a complete installation.
- **Communications and electrical device identification with self-adhesive polyester labels or optional engraving.** Refer to the options on page five. No time-consuming circuit tracing. Speeds additions and renovations.
- **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.
- **Jobs can be packaged by area, floor, or building and shipped per job site requirements.** Reduces on-site installation time and costs.
- **UL5 and ADA compliant.** Raceway and fittings meet UL5 specifications and can be installed in conformance with ADA requirements.
- **UL Listed multioutlet assemblies.** File E68073 Guide PVGT, Fittings: File E121188 Guide RJPR. Meets Article 380 of NEC and meets Section 12-3032 of CEC.
- **UL and cUL Listed component raceways.** File E73943 Guide RJBT, Fittings: File E74343 Guide RJPR. Meets Article 386 of NEC and meets Section 12-600 of CEC.

## AL4750 Wire Fill Capacity Charts

### AL4750 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.

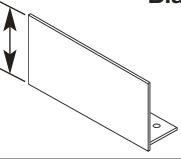
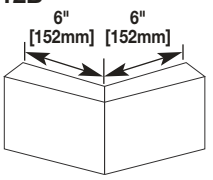
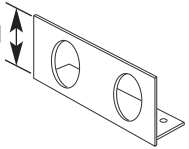
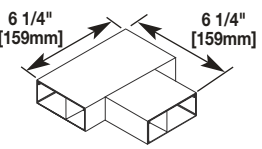
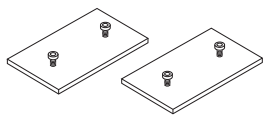
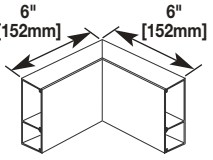
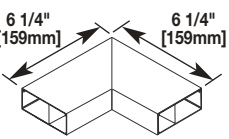
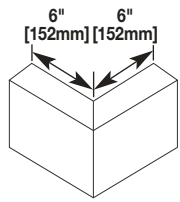
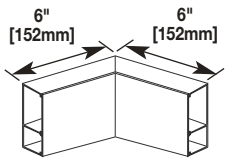
\*\* Each compartment.

### AL4750 Raceway Wire Fill Capacities for Power (40% Fill Factor)

WIRE SIZE THHN (STRANDED)		AL7320						
		ALA3800*	AL4400*	AL4520*	AL4750	Single	Dual*	AL4800*
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
	14 AWG	156	190	232	133	229	215	156
POWER WIRING WITH GFCI DEVICES (2.04 sq. in.)	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
	14 AWG	116	106	137	49	135	121	116

\* Each compartment

## AL4750 Prewired Aluminum Raceway Fittings

Catalog No./Item	Description/Specifications	Catalog No./Item	Description/Specifications
<b>AL4710B</b> 1 7/8" [48mm]	<b>Blank End Cap</b> 	<b>AL4712B</b> 6" [152mm] 6" [152mm]	<b>45° External Mitered Elbow with Coupling</b> 
<b>AL4710B2</b> 1 7/8" [48mm]	<b>Entrance End Cap for 1/2" [12.7mm] Conduit Connector</b> 	<b>AL4715</b>	<b>Flat Tee with Coupling</b> 6 1/4" [159mm] 6 1/4" [159mm] 
<b>AL4701</b>	<b>Slide Coupling</b> 	<b>AL4717</b> 6" [152mm] 6" [152mm]	<b>Internal Mitered Elbow with Coupling</b> 
<b>AL4711</b> 6 1/4" [159mm] 6 1/4" [159mm]	<b>90° Flat Mitered Elbow with Coupling</b> 	<b>AL4718</b> 6" [152mm] 6" [152mm]	<b>External Mitered Elbow with Coupling</b> 
<b>AL4712A</b> 6" [152mm] 6" [152mm]	<b>45° Internal Mitered Elbow with Coupling</b> 		

## Device and Raceway Labeling Detail

- Device labeling is available in the following materials:

Gray self-adhesive polyester label with black lettering (standard).

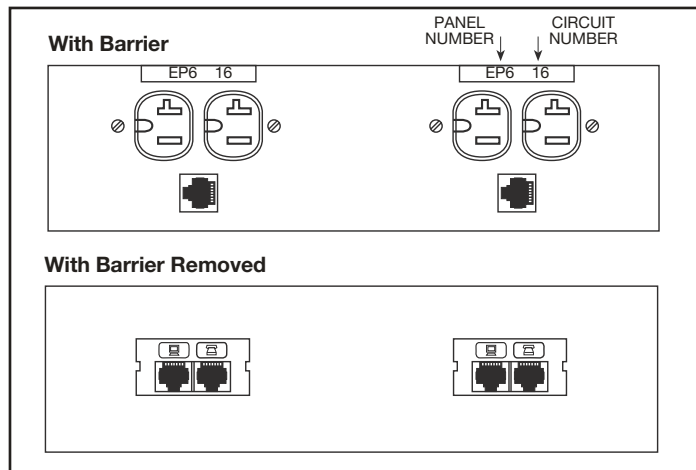
Other color self-adhesive polyester labels.

Covers engraved with black lettering.

Engraved phenolic nameplates with adhesive backing.

Screw mounted engraved phenolic nameplates.

- The raceway base is labeled with the raceway number and the room or area number(s).



## AL4750 Prewired Aluminum Raceway Features

Features	Standard	Options
<b>Communication Devices</b>	Ortronics & Activate™ Connectivity System Devices	Other manufacturers
<b>Electrical Devices</b>	Pass & Seymour	Other manufacturers
<b>Cover Length</b>	12" [305mm] or 18" [457mm]	24" [610mm], 36" [914mm], custom
<b>Body Length</b>	Longest = 10' [3.05m], shortest = 1' [305mm]	
<b>Installation</b>	Surface mounted	Flush mounted (recessed)
<b>Finish</b>	Architectural Class II Clear Anodized	Custom colors available, consult factory.*
<b>Fittings</b>	Mitered	Custom Length & Legs
<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>Electrical Device Identification</b>	Gray self-adhesive polyester label	Engraved covers, self-adhesive engraved nameplate, with black letters screw mounted 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 with hole saw	Entrance end cap
<b>Device Mounting</b>	2 counter-sunk #6-32 screws	
<b>Record Drawings</b>	3 sets and 2 copies of marked-up blueprints	Per job requirements
<b>Submittal Services</b>	Detailed Submittal (4 weeks or less)	Submittal Free
<b>Anodized Finish Thickness</b>	.004"	
<b>Minimum Wall Thickness</b>	0.078"	
<b>Material Type</b>	#6063-T5 Aluminum Alloy	
<b>Device Wire Termination</b>	.Back Wired	Side Wired
<b>Length Tolerances</b>	Cover 1/16", Base 1/8"	

\* Paint chip required for custom colors.

## AL4750 Ordering Specifications for Prewired Applications

### Prewired ordering options:

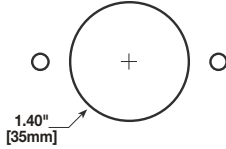
- |                              |   |
|------------------------------|---|
| <b>1. Detailed Submittal</b> | The detailed submittal shows exactly how each raceway run will be built (lengths, number, and type of receptacles, wiring schematics, circuiting information, etc.). The contractor and/or distributor must review and correct any information not clearly indicated on the drawings or specs, approve and return before production can be scheduled. |
| <b>2. Submittal Free</b>     | 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.   |

## AL4750 Device Openings

### 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

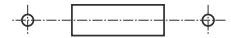


### Duplex

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



### Single-Gang Switch



## AL4750 Device Compatibility

### NEMA Locking Compatibility

All of the following NEMA locking devices will fit.

will fit.	will fit if the barrier is removed.									
L5-15R	L5-20R	L6-30R	L8-20R	L10-20R	L12-20R	L14-20R	L16-20R	L18-20R	L20-20R	L22-20R
L6-15R	L5-30R	L7-20R	L8-30R	L10-30R	L12-30R	L14-30R	L16-30R	L18-30R	L20-30R	L22-30R
L7-15R	L6-20R	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	2	2	Y	2	2	2	2	Y	2	2	Y	2
14-50R	14-60R	15-20R	15-30R	15-50R	15-60R	18-20R	18-60R	GFCI	SURGE				
2	2	2	2	2	2	2	2	3	3				

Y = will fit

N = will not fit

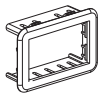
1 = Requires adapter box

2 = Remove barrier with adapter box. Barrier is factory removed throughout the entire length of the raceway and cannot be reinstalled.

3 = Remove barrier only. No adapter box needed.

## Communication Bezels For Prewired Applications

### Ortronics®



• Accepts one (1) Series II Module



• Accepts two (2) TracJack Modules



• Accepts three (3) Series II Module

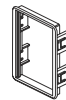


• Accepts six (6) TracJack Modules

### Pass & Seymour® Activate/Wiremold CM Modules



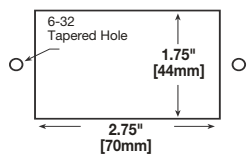
• Accepts one (1) Activate 2A Module or one (1) Wiremold CM2 Series Communication Module



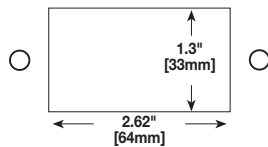
• Accepts three (3) Activate 2A Modules or three (3) Wiremold CM2 Series Communication Modules

## AL4750 Communication Openings

### Wallplate Openings\*



### Rectangular Openings\*



### Grommet Openings

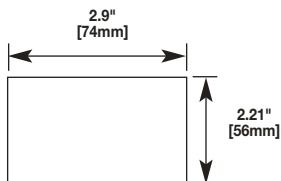
1/4" [6.4mm] Inner Diameter  
1/2" [12.7mm] Inner Diameter  
3/4" [19.1mm] Inner Diameter  
1" [25mm] Inner Diameter



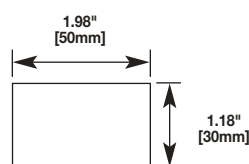
### Duplex for Data\*



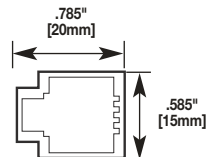
### MAB Bezel Openings\*



### AB Bezel Openings\*



### RJ45 Jack



**NOTE:** Custom openings also available - consult factory.

\* Barrier must be removed.

## NOTES



## 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)

