

### AL2000 PLUGMOLD® MULTIOUTLET SYSTEM

#### PART 1 GENERAL

##### 1.1 SCOPE

This specification covers an aluminum surface metal raceway and multioutlet system to provide branch wiring and convenience power outlets. The aluminum raceway shall consist of a base, blank cover, and appropriate fittings for a complete installation per the electrical drawings. The multioutlet system shall consist of a base, pre-punched cover, wired receptacle harness, and appropriate fittings for a complete installation per the electrical drawings.

##### 1.2 CLASSIFICATION AND USE

Aluminum surface metal raceway is to be utilized in dry interior locations only as covered in Article 352 Part A of the National Electrical Code, as adopted by the National Fire Protection Association and as approved by the American National Standards Institute. The Wiremold Company AL2000 raceway system is listed by Underwriters Laboratories under File No. E73943 Guide RJBT and E74243 Guide RJPR.

The multioutlet system is to be utilized in dry interior locations only as covered in Article 353 of the National Electrical Code, as adopted by the National Fire Protection Association and as approved by the American Standards Institute. The Wiremold Company Plugmold AL2000 multioutlet system is listed by Underwriters Laboratories under File No. E72375 Guide PVGT.

#### PART 2 PRODUCT

##### 2.1 MANUFACTURER

The aluminum raceway system and/or multioutlet system specified herein for branch circuit wiring and convenience power outlets shall be the AL2000 Base and Blank Cover, and/or the AL2000 Plugmold Multioutlet System as manufactured by The Wiremold Company. Systems of other manufacturers may be considered equal if, in the opinion, and the written approval of the engineer, they meet all the performance standards specified herein.

##### 2.2 MATERIALS

The raceway and all system components must be UL Listed in full compliance with their standard for surface metal raceways and fittings (UL-5). The snap together base and cover shall be manufactured of 6063-T5 extruded aluminum alloy, 0.060" [1.50mm] thick throughout, with a satin anodized finish.

###### 2.2.1 Raceway

The raceway shall be a two-piece design with a base and cover. Total width shall be 1.4375" by 1.125" [36.5mm x 28.6mm] deep with a cross sectional area of 1.1 square inches [27.9mm]. The AL2000 raceway base shall be available in 5' and 10' [1.5m and 3m] lengths. The AL2000 Plugmold base will be constructed with 1/2" [12.7mm] trade size knockouts, equally spaced, for feeding the system.

The AL2000 series cover shall be either blank or with pre-punched holecuts for receptacles on 6", 12" and 18" [152.4mm, 304.8mm and 457.2mm] centers for the Plugmold AL2000 version. The AL2000 blank cover shall be available in 5' [1.5m] lengths. The AL2000 Plugmold Multioutlet System is offered in standard 3', 5' and 6' [914mm, 1.5m and 1.8m] lengths.

A full compliment of fittings must be available including, but not limited to, couplings, grounding adapters, flat, internal and external elbows, tees, crosses, entrance end fittings, blank end fittings and cover clips. Transition fittings shall be available to adapt to an existing flush wall box. All fittings shall be supplied with a base and the appropriate number of connector couplings where applicable. The fittings shall be an anodized finish to match the raceway.

### **2.2.3 Device, Extension and Utility Boxes**

Device boxes shall be available to mount standard devices and device faceplates in single gang, two-gang and three-gang configurations. These same boxes must serve as extension boxes to feed the raceway and/or Plugmold sections. The bases must have an open backplate for mounting to existing flush wall boxes and a solid backplate insert with a 1/2" and 3/4" [12.7mm and 19.0mm] concentric knockout to close the opening.

Round utility boxes shall be available for hanging commercially available fixtures. The cover shall be capable of mounting any device with 2 3/4", 3 1/2" and 4 1/16" [69.8mm, 88.9mm and 103.2mm] screw centers. The round fixture box base must be solid with a 1/2" and 3/4" [12.7mm and 19.0mm] trade size concentric knockout. All device and utility fixture boxes are to be satin anodized to match the raceway.

### **2.2.4 In-Line Devices**

The aluminum raceway system must have in-line receptacle and switch devices that are flush with the raceway profile. Single circuit and isolated ground 15A, 125V NEMA 5-15R twin prewired receptacles shall be available. These shall have three inch (3" [76.2mm]) lead wires for hard-wired connection in either raceway or Plugmold sections. The system shall also offer a single pole switch 15 Amp 120/277 VAC. These in-line devices shall be a satin anodized finish to match the raceway.

### **2.2.5 Multioutlet Wiring Harnesses**

Multioutlet wiring harnesses shall consist of 15 Amp, 125 Volt NEMA 5-15R specification grade receptacles. Receptacles shall be UL listed and be in compliance with UL-498. The harnesses shall be available in three wiring configurations: single circuit (2 conductor plus ground), two circuit alternating (3 conductor plus ground) and single circuit isolated ground (2 conductor plus isolated ground) versions. The wires shall be #12 AWG solid type THHN conductors, factory assembled to the receptacles, for connection to a 125 volt maximum 20 Amp service. The Plugmold AL2000 wiring harnesses shall be available with receptacle spacings of 6", 12" and 18" [152.4mm, 304.8mm and 457.2mm] centers.

### **2.2.6 Communication Devices and Accessories**

The raceway manufacturer will provide a complete line of connectivity outlets and modular inserts for UTP (including Category 5), STP (150 ohm) Fiber Optic, Coaxial and other cabling types with face plates and bezels to facilitate mounting. A complete line of preprinted station and port identification labels, snap-in icon buttons as well as write-on station identification labels shall be available.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

Prior to and during installation, refer to system layout drawing containing all elements of the system. Installer shall comply with detailed manufacturer's instruction sheets that accompany system components, as well as complete system instruction sheets, whichever is applicable.

#### **3.1.1 Mechanical Security**

All raceway systems shall be mechanically continuous and connected to all electrical outlets, boxes, cabinets, in accordance with manufacturer's installation sheets.

#### **3.1.2 Electrical Security**

All metal raceway shall be electrically continuous and bonded in accordance with the National Electrical Code for proper grounding.

### ***3.1.3 Completeness***

Work shall include fastening all raceway and appropriate fittings and device plates to install a complete aluminum surface raceway system as indicated on the electrical and/or communication drawings and in the applicable specifications. All raceway systems shall be installed complete, including wire clips and insulating bushings where required by manufacturer's installation sheets.