

# Amphenol Luminus Series Connectors



**A LIGHTWEIGHT, COST-EFFECTIVE CONNECTOR THAT IS HIGHLY RELIABLE AND SIMPLE TO USE.**

With multiple product options to choose from, they meet MIL-T-81714, accept AS39029 and Stamped & Formed contacts, and are environmentally-sealed to IP67. Ideal where space is limited, these innovative, “scoop-proof” connectors feature a locking mechanism that ensures stability, are suitable for blind-mating, and are RoHS compliant.

## APPLICATIONS

- Cockpit
- Airline Seats/Power Distribution
- Interior Lighting / LED
- Aircraft Galley
- In-flight Entertainment
- Railway
- Heavy Equipment
- Business Jets

## FEATURES

### MIL-T-81714

Developed to meet MIL-T-81714 requirements

### QUICK, SIMPLE CONNECTION

Makes wire installation and maintenance easy and efficient; positive “click” when locked with ¼ turn bayonet coupling system; push and pull system.

### INTERFACIAL AND TRIPLE-BARRIER SEAL

Enables environmental sealing (IP 67 rating)

### AS39029 CONTACTS

Accepts standard AS39029 contacts (MIL-C-39029)

### STAMPED & FORMED CONTACTS

For applications where Mil-Spec contacts are not necessary; lighter vs. Mil-Spec contacts

### MULTIPLE KEYING POSITIONS

Ensures proper connectivity

### MULTIPLE CONFIGURATIONS AND ACCESSORIES

Flexible product options

### DURABILITY

Rugged polyamide housings; 500 mating cycles

### BLIND-MATE CONNECTION

Polarization feature enables simple, blind mating

### VISUAL MARKINGS

Visual aid to help user mate connector

**TECHNICAL SPECIFICATIONS**

**MATERIALS & FINISHES**

Insulator Body	Polyamide 6/6 (Nylon)
Grommet	Silicone Rubber
Contact Retainer:	Stainless Steel
Contacts	Copper Alloy; Stamped & Formed Contact - Hood Stainless Steel; Stamped & Formed Contact - Sleeve Stainless Steel
Contacts	Copper alloy
Plating	Gold-plated 50 microinches per MIL-G-45204 type II, grade C, class I Stamped & Formed Contact - Selective gold plate over mating area 3-5 micro inches over nickel

**ELECTRICAL DATA**

Insulation Resistance 5000 Ω Min. @ 500 VDC

Dielectric Withstanding 60 Hz

	PUSH AND PULL	TWIST AND LOCK
SEA LEVEL	1500VAC	1500VAC
45,00 FEET	600VAC	-
70,000 FEET	-	300VAC
100,000 FEET	-	300VAC

Current Rating by Contact Size & Wire Accommodation (Test Amps)

WIRE SIZE	22D	20	16	12
28	1.5	-	-	-
26	2.0	-	-	-
24	3.0	3.0	-	-
22	5.0	5.0	-	-
20	-	7.5	7.5	-
18	-	-	10.0	-
16	-	-	13.0	-
14	-	-	-	17.0
12	-	-	-	23.0

Contact Resistance of Mated Contacts End to-End

CONTACT SIZE	MAXIMUM MILLIVOLT DROP
22D	73
20	55
16	49
12	42

**MECHANICAL DATA**

Temperature Range	-65°F to 257°F (-65°C to 125°C)
Temperature Life	Push and Pull - 150 hours @ 203°F (95°C) Twist and Lock - 500 hours @ 185°F (85°C)
Temperature Cycling	Push and Pull - 5 (1) Hour Cycles: 32°F to 203°F (0°C to 95°C) Twist and Lock - 5 (1) Hour Cycles: -85°F to 257°F (-65°C to 125°C)
Durability	Push and Pull - 50 mating cycles Twist and Lock - 500 mating cycles
Thermal Shock	Twist and Lock - 85°F to 392°F (-65°C to 200°C)

**MECHANICAL DATA (CONT.)**

Altitude Immersion	Push and Pull - 5% salt solution, 55K feet, DWV 1500VAC Twist and Lock - 5% salt solution 5000 Megohms @ 1500 VAC, sea level 5000 Megohms @ 300 VAC, 70K feet 5000 Megohms @ 300 VAC, 100K feet
Vibration	10-2000 Hz, 15G Peak
Shock	Twist and Lock - 100G Sawtooth, 6MS
Salt Spray	Twist and Lock - 5% Salt Spray @ 203°F (95°C) for 48 hours
Humidity	10 Days @ 77°F to 149°F (25°C to 65°C), 90-95% RH
Seal Rating	IP67
Flammability	Push and Pull - UL94, V0 Twist and Lock - UL94, V0, DOTG section 26.6.2 & 26.6.3, FAR Part 25 App F Part I
RoHS & REACH Compliant	Yes
Fluid Immersion	<p><b>Push and Pull</b></p> Skydrol Hydraulic Fluid Hydraulic Fluids per MIL-PRF-832282 & MIL-PRF-87257 Ethylene Glycol Propylene Glycol Aviation Jet Fuel - A
	<p><b>Twist and Lock</b></p> Lubricating Oil per MIL-PRF-7808 Cleaning Compound per MIL-PRF-87937, Alkaline Base Isopropyl Alcohol & Mineral Spirit Solution Skydrol Hydraulic Fluid Hydraulic Fluids per MIL-PRF-832282 & MIL-PRF-87257 Ethylene Glycol Propylene Glycol Aviation Jet Fuel - A