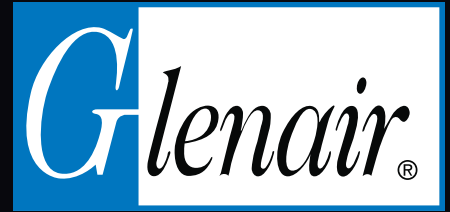


MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



Glenair
SIGNATURE SERIES



High-Current, High-Voltage Power Connectors

Single- and Multi-Pole • Traction Motor Connectors
Industry-Standard and Signature M5015 Reverse-Bayonet



HIGH-CURRENT / HIGH-VOLTAGE

Rugged Connectors for Metro Traction Motor Applications



UJ SERIES UNIPOLE POWER JOINT CONNECTOR SYSTEM

The Glenair UJ Power Joint system allows connection of medium and high power cables without the need for bulky junction boxes. The UJ Power Joint System offers the same environmental protection with substantial size and weight savings and better temperature tolerance than junction boxes.



3-position configuration



Head-to-head size comparison: UJ connector vs. junction box



2-position configuration

	UJ Series	Junction Box
Dimensions	Small	Regular / Big
Weight	Light	Heavy
Protective Varnish	No	Yes
Modularity	Yes	No
Environmental	Yes	Yes
Electrical Performance	Yes	Yes
Cost Reduction	Yes	No
Temperature Range	High	Standard

HIGH-CURRENT / HIGH-VOLTAGE Power Connectors for Mass Transit Traction Motor Applications



Series UJ · Series ITS 901 · Series ITS 500

ITS 901 SERIES REVERSE BAYONET MULTI-POLE MEDIUM VOLTAGE JUMPER CONNECTORS



Reverse-Bayonet
Panel-Mount
Receptacle
Connector



Wide range
of available
backshell
accessories



Reverse-Bayonet
Plug with Castellated
Coupling Nut



Reverse-Bayonet
Plug with RadGrip
Coupling Nut



Reverse-Bayonet
Plug with Wing-
Lock Mechanism

ITS 901 Series is the extension of the ITS Reverse Bayonet connector family, for power cables over AWG 1/0. Suitable for harsh environmental conditions, 901 Series Connectors accept cable from AWG 4 to 262 MCM (35 - 120 mmq), for current up to 450 Amps. Working voltage is from 800 - 1000 VAC. Available for single wires and multipole jacketed cables, with cable clamp or conduit.

Male contacts offer Finger Test Protection, Load Side (Receptacle or Plug).

Long bayonet ramps, three polarization keys and rubber recovered coupling facilitate mating and unmating operations.

Plug connectors are available with coupling nut castellations or with special wing lock mechanism to prevent accidental de-mating.

901 Series meet the most important rail requirements and specifications:

- Salt Spray Test Corrosion: 500 hours;
- 500 Mating Cycles;
- Shock and Vibrations for Under-Car and Car-To-Car Applications;
- IP67 Sealing (Coupled Connectors);
- Fire Resistant and RoHS Compliant Materials.

ITS 500 SERIES REVERSE BAYONET SINGLE-POLE HIGH VOLTAGE JUMPER CONNECTORS



Single-Pole
Plug Connector
with Castellated
Coupling Nut



Single-Pole
Receptacle
Connector

ITS 500 Series derives from the VG96929 Military Specification for Power Connectors. Suitable for harsh environmental conditions, ITS 500 accepts cable gauges AWG 3/0 to 444MCM (95-240 mmq), for current up to 750 Amps.

Special insulator drawing allows high working voltage, up to 3000 Vcc.

Suitable for jacketed cables, with or without conduit protection.

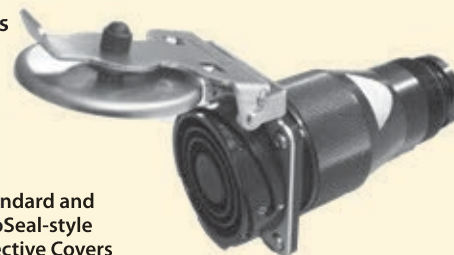
Receptacle with finger protection (Load side).

ITS 500 meets the most important rail requirements and specifications:

- 500 Mating Cycles
- Salt Spray Test Corrosion: 500 hours
- Shock and Vibrations for Under-Car and Car-To-Car Applications
- IP67 Sealing (Coupled Connectors)
- Fire Resistant and RoHS Compliant Materials



Standard and
ProSeal-style
Protective Covers





HIGH-CURRENT / HIGH-VOLTAGE

Multipole Traction Motor Connectors with IRIS Certification



High current/high voltage electrical connectors for traction motor, lighting, data communications and more.

The interconnection of power transmission cables in traction motors is a critical application. Conventional systems may employ bulky and inefficiently-sealed junction boxes for cable interconnection. Glenair offers a number of different special-purpose designs for traction motors and other power requirements on transit cars. Features such as integral mounting, robust environmental sealing, screw and/or lever-action mating, as well as compliance to transit industry standards such as IRIS, FST, and RoHS make Glenair the natural design partner and supplier to the worldwide mass transit / rail industry. The following pages present an overview of our most popular power and signal connector series, principally manufactured, tested, and qualified in our Bologna, Italy factory. Glenair delivers worldwide application engineering and support to the mass transit / rail industry with support teams located in every major market.

- Innovative screw and lever mated power connectors for mass transit / rail applications
- Proven performance and qualification credentials in hundreds of installations
- IRIS International Railway Industry Standard certified (Rev. 02, May 2009)

RUGGED

Power and Signal Connectors for mass transit applications

IRT Rectangular Multipole Connectors



SERIES IRT RECTANGULAR MULTIPOLE HIGH VOLTAGE TRACTION MOTOR CONNECTORS



Plug Connector



Receptacle Connector

The Glenair IRT series is a rectangular power connector for harsh environmental conditions. Available with three, four and six contacts, typical for traction motor applications. Suitable for single cables AWG 4 – 373MCM (35 to 185 mmq). Working voltage up to 3000 Vcc.

Two mating systems offered:

- Screws, for light weight and reduced dimensions
- Lever system with secondary lock, easy-to-use in difficult positions.

The IRT Series is suitable for separated power cables, with or without shielding, ground body available with a copper plait.

Available with three different cable back-end styles:

- Metallic gland
- Clamp with strain relief
- EMC shield and gland

Series IRT Connector Selection Guide



Size 01
3 contacts, Screw Mating



Size 02
4 contacts, Screw Mating



Size 03
3 contacts, Lever Mating



Size 04
3 contacts, Double-Lever Mating



Size 05
4 contacts, Lever Mating



Size 06
6 contacts, Stacked, Lever Mating



Multi-pole signal and power contact arrangements as well as single-pole (VG96929 / Glenair IGE Series) configurations

SR. ITS REVERSE-BAYONET

Rugged reverse-bayonet circular power and signal connectors for general-purpose rail and industrial applications

Environmental and mechanical protection of cables, conductors and contacts is a critical requirement in rail and industrial applications especially when frequent mating and unmating is required, or when cables are routed through exposed intercar or undercar locations. To ensure rapid and accurate car linking and cabin reconfigurations, interconnects must be easy to couple and keyed to avoid mis-mating. Vibration, shock and connector decoupling problems are also common in rail applications, and require focused attention when selecting shell materials and mating technologies. As passenger and crew safety is paramount, interconnection systems must not compound flammability, smoke or toxicity risks. Series ITS meets all of these requirements and more, and has demonstrated proven performance on virtually every rail industry sub-system.

- Proven interconnect solution designed and built in accordance with MIL-DTL-5015
- Qualified to VG95234
- Hundreds of power and signal contact arrangements (crimp and solder)
- Reverse bayonet, quick-disconnect coupling technology
- Standard insert (Series ITS), flame-resistant insert (Series FRITS), rigid dielectric insert (Series ITH), and high-temperature ceramic stainless steel firewall (Series ITK)

SERIES ITS (EXPLODED VIEW)



- Machined body and shell components
- Broad range of industry-standard plating including innovative new Tin-Zinc formulas
- Silver-plated and gold-plated crimp and/or solder cup contacts
- Reverse-bayonet mating with stainless steel locking pins
- Environmentally sealed

Industry-Standard 5015-Type Power and Signal Connector Series



VG-qualified and Glenair Signature solutions

FR ITS SERIES



FR ITS is the fire-resistant ITS connector series, designed with Flame, Smoke, and Toxicity-compliant insulating materials. FRITS is broadly utilized for environmental and non-environmental rail applications. More than 230 insert arrangements are available, from 1 to 150 contacts. FRITS connectors are RoHS-compliant, and IP67 environmentally sealed.

Available FRITS - STR backshells provide versatile locking of cables or wires into the connector, providing IP67 sealing and EMI/RFI termination.



FR-ITS STR backshell for EMI shielding and IP67 sealing

ITH SERIES



The ITH connector series is based on the MIL-C-5015 standard, but with improved reverse bayonet coupling. Rigid inserts and crimp contacts provide better electrical insulation and reduced assembly time. The 3-point, positive-locking reverse bayonet coupling mechanism provides easier mating in awkward positions, reliable resistance to vibration and shock, and prevents de-coupling. ITH connectors conform to the VG95234 standard, French (NFF 61030) electrical standards, as well as EEC compliance directives for electromagnetic compatibility. EMI shield termination accessories are available for both overall as well as individual wire shields.

- Design IAW MIL-C-5015 and VG95234
- Temperature range -40°C to +100°C (conductive plating) or -55°C to +125°C (non-conductive plating)
- RoHS compliant
- Low fire hazard inserts, UL94V0 and NFF 16-102 compliant
- Halogen-free silicone rubber gaskets per NFF 16-102

ITK SERIES

Standard plug and receptacle



The high-temperature tolerant ITK series is a rugged reverse-bayonet mating connector that utilizes stainless steel connector shells and special high-temperature ceramic inserts. Compliant to EN 45545 standards, ITK connectors are capable of operation at +700°C for 15 minutes without electrical discontinuity.



ITK "piccolo"
2-pin plug and receptacle

- Ultra high-temperature tolerant ceramic inserts
- Stainless-steel construction
- EN 45545 compliant
- Operates at +700°C for 15 minutes, with no electrical discontinuity



MISSION-CRITICAL INTERCONNECT SOLUTIONS

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