IndustrialNet™ Variant 1 Bulkhead Connectors

PANDUIT®

SPECIFICATION SHEET

specifications

8-position, industrial connector shall be applicable for use in manufacturing environments and shall meet/exceed the ANSI/TIA-568.2-D standards for Category performance requirements. Bulkhead RJ45 jack and plug shall incorporate an IP67 rated seal and shall be designed to provide protection from dust and temporary immersion in water typically found in harsh industrial environments. Tethered protective cap shall ensure IP67 protection of the connector and plug in the unmated condition. Secondary seals on both the connector and plug shall provide an additional environmental barrier. Termination to a 4-pair 24 AWG, 100 Ohm twisted pair cable shall not require the use of a punch down tool. An IP67 rating shall be achieved when mated with an IP67 and NEMA UL Type 12, 6/6P, 4X industrial grade, bayonet style patch cord.

technical information

Channel and component performance:	Exceeds channel and component requirements of ANSI/TIA-568.2-D Category and ISO11801 Class E standards at swept frequencies for each performance category
Electrical/mechanical performance:	Meets all ODVA Ethernet/IP^ electrical and mechanical performance requirements
Environmental protection:	Protects and seals connections against dust and water immersion to ANSI/IEC 60529-2004
	Vibration, temperature and chemical resistant; shielded version further enhances electromagnetic performance
FCC and ANSI/TIA compliance:	Meets ANSI/TIA-1096-A; contacts plated with 50 micro inches of gold for superior performance
IEC compliance:	Plug meets IEC 60603-7 specifications
IP compliance:	Rated IP67 for dust protection and temporary liquid immersion
NEMA/UL compliance:	Rated UL Type 12, 6/6P, 4X
Material:	Bulkhead connector is constructed of black PBT plastic
Packaging:	Connector and plug include protective cap
RoHS compliancy status:	Compliant
PoE compliance:	Meets IEEE 802.3af and IEEE 802.3at for PoE applications

IndustrialNet™ TX6A™ Connectors	
UTP:	IAEBH6X
STP:	IAEBH6XS
Shielded Coupler:	IAEBHC6XS
IndustrialNet™ TX6™ PLUS Connectors	
UTP:	IAEBH6
Shielded:	IAEBH6S
Coupler Module:	IAEBHC6
IndustrialNet™ TX5e™ Connectors	
UTP:	IAEBH5E
Shielded:	IAEBH5ES
Coupler Module:	IAEBHC5E
Shielded Coupler:	IAEBHC5ES
IndustrialNet™ TX5e™ Modular Plugs	
UTP:	MPI588T
Shielded:	MPSI588T
IndustrialNet™ USB Coupler	
Female A to female A:	IAEBHUSBAA
IndustrialNet™ TX6A™ Patch Cords	
UTP with bulkhead connector on both ends:	IUTP6X1MBL*
UTP with bulkhead connector on one end:	IUTP6X1MBLR*
STP with bulkhead connector on both ends:	ISTP6X1MBL*
STP with bulkhead connector on one end:	ISTP6X1MBLR*

*For lengths 2, 3, 5, and 10 meters, change the length designation in the part number to the desired length.

For example, the part number for an STP patch cord with industrial bulkhead connectors on both ends in 5-meter length is ISTP6X5MBL.

IndustrialNet™ TX6™ Patch Cords	
UTP with caps:	IUTPSP3BL*
UTP without caps:	IUTPSPNC3BL*
STP with caps:	ISTSP1MBL**
STP without caps:	ISTPSPNC1MBL**
IndustrialNet™ TX5e™ Patch Cords	
UTP with caps:	IUTPCH3BL*Y
UTP without caps:	IUTPCHNC3BL*Y
STP with caps:	ISTPCH1MBL**Y
STP without caps:	ISTPCHNC1MBL**Y

*For lengths 5, 7, 10, 15, or 20 feet, change the length designation in the part number to the desired length. For example, the part number for a 7-foot, UTP patch cord is IUTPSP7BLY.

**For lengths 2, 3 or 5 meters, change the length designation in the part number to the desired length. For example, the part number for a 5-meter, shielded patch cord is ISTPSP5MBLY.

^EtherNet/IP is a trademark of ODVA.

IndustrialNet™ Stainless Steel Faceplates	
Single gang:	IAEFP1
Double gang:	IAEFP2-2G
Tools and Accessories	
Empty bulkhead:	IAEBH
Termination tool (optional):	EGJT or TGJT
Wire snipping tool:	CWST
Wire stripping tool:	CJAST

IndustrialNet™ Variant 1 Bulkhead Connectors

key features and benefits

IP/NEMA/UL rated connection	Withstands light wash down and temporary submerged conditions in harsh factory environments without loss of performance when mated to IP67 IndustrialNet™ Patch Cords; Maintains NEMA 4/4X rating when properly installed on NEMA 4/4X enclosures
Bulkhead anti-rotation washer	Eliminates the potential for module rotation
Connector mounting nut	Holds bulkhead safely and securely from inside of enclosure
Robust construction	Plug contact plated with 50 micro inches of gold
Bayonet style interface	Provides positive reinforcement during mated condition; rated to 100 mating cycle
Protective cap	Maintains IP67 seal during unmated connection
Utilizes patented Giga-TX™ Technology	Optimizes performance by reducing conductor untwist to less than 1/8"
Forward motion termination	Speeds installation and places no impact on critical components for maximum reliability
Industry standard RJ45 interface	Offers industry standard solution familiar to end users which speeds deployment
No punchdown tool required	Can terminate with standard adjustable slipjaw pliers or optional termination tool (EGJT)
Universal wiring scheme	Termination cap is color coded for T568A and T568B wiring schemes
Standard mounting	Bulkhead connector fits into standard IEC 1-13/64" (30.5mm) diameter mounting hole or optional faceplate

applications

IndustrialNet™ Variant 1 Bulkhead Connectors provide an ideal solution to support industrial Ethernet from the Local Area Network (LAN) based support offices to the processing devices on the plant floor even under harsh industrial conditions. Innovative design features provide a secure, reliable connection for superior data transmission in work cells where moisture and dust/particles are encountered, in temperature extremes and in applications with vibration. Industrial bulkhead connection protects and seals against dust and water immersion common in the food and beverage industry where bacterial contamination is present and light wash down is required. High temperature resilience of up to 85°C storage and 75°C operating offers reliable connection in manufacturing facilities such as metal processing, welding, and chemical batch processing where high temperatures are normal. In automotive panel stamping plants and work cells where vibration is a concern, the IndustrialNet™ Connectors protect the RJ45 mating.

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