

specifications

8-position, industrial connector shall be applicable for use in manufacturing environments and shall meet/exceed the ANSI/TIA-568-C.2 standard for Category 5e 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 solid twisted pair cable shall be accomplished by use of a forward motion termination cap and shall not require the use of a punchdown tool.



technical information

Category 5e/Class D channel and component performance:	Exceeds channel and component requirements of ANSI/TIA-568-C.2 Category 5e and ISO11801 Class D standards at swept frequencies 1 to 100 MHz
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 all applicable ANSI/TIA-968-A requirements, contacts plated with 50 microinches of gold for superior performance
IEC compliance:	Plug meets IEC 60603-7 specifications
Packaging:	Connector and plug include protective cap
RoHs compliancy status:	Compliant
PoE compliance:	Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications
Conductor termination range:	Wire cap compatible with 22 – 26 AWG solid or stranded cable with conductor insulation diameters of 0.060 in. max. and overall cable O.D. 0.200 in. to 0.330 in.

key features and benefits

Specifically designed to comply with Category 5e connector performance requirements	Exceptional return loss margin, exceeds all ANSI/TIA-568-C.2 connector performance requirements
Bulkhead anti-rotation washer	Eliminates the potential for module rotation
Connector mounting nut	Holds bulkhead safely and securely from inside of enclosure
Bayonet style interface	Provides positive reinforcement during mated condition
Protective cap	Maintains IP67 seal during un-mated 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	Familiar to end users
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 optional faceplate as well as standard IEC 1-13/64" (30.5mm) diameter mounting hole

applications

IndustrialNet™ TX5e™ 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, found in manufacturing facilities where performance and reliability are crucial in maintaining a constant level of network availability and efficiency. The Bulkhead RJ45 Industrial Ethernet Connector is a key component to an overall Industrial Ethernet application. In most designs, the bulkhead connector will be the interface that protects the integrity of the Ethernet data transfer from the switch and PLC out to the devices or up to the horizontal plant backbone.

Typical work cells requiring the IP67 protection, found in IndustrialNet™ TX5e™ Connectors, include those where wash down is needed. This is common in the food and beverage industry where bacterial contamination is present. The bulkhead connector also offers high temperature resilience, namely 85°C storage and 60°C operating. In manufacturing facilities such as metal processing, welding, and chemical batch processing, high temperatures are normal. Vibration is also a concern, as in automotive panel stamping plants and work cells. The IndustrialNet™ TX5e™ Connectors protect the RJ45 mating even in the most severe vibration applications.

IndustrialNet™ TX5e™ Connectors

UTP: IAEBH5E
Shielded: IAEBH5ES
Coupler module: IAEBHC5E

IndustrialNet™ TX5e™ Modular Plugs

UTP: MPI588T
Shielded: MPSI588T

IndustrialNet™ TX5e™ Patch Cords

UTP with caps: IUTPCH3BL*Y
UTP without caps: IUTPCHNC3BL*Y
STP with caps: ISTPCH1MBL**Y
STP without caps: ISTPCHNC1MBL**Y

IndustrialNet™ Stainless Steel Faceplates

Single gang: IAIEFP1
Double gang: IAIEFP2-2G

Tools and Accessories

Empty bulkhead: IAEBH
Termination tool (optional): EGJT
Wire snipping tool: CWST
Wire stripping tool: CCAST

*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 IUTPCH7BLY.

**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 ISTPCH5MBLY.

Test Results

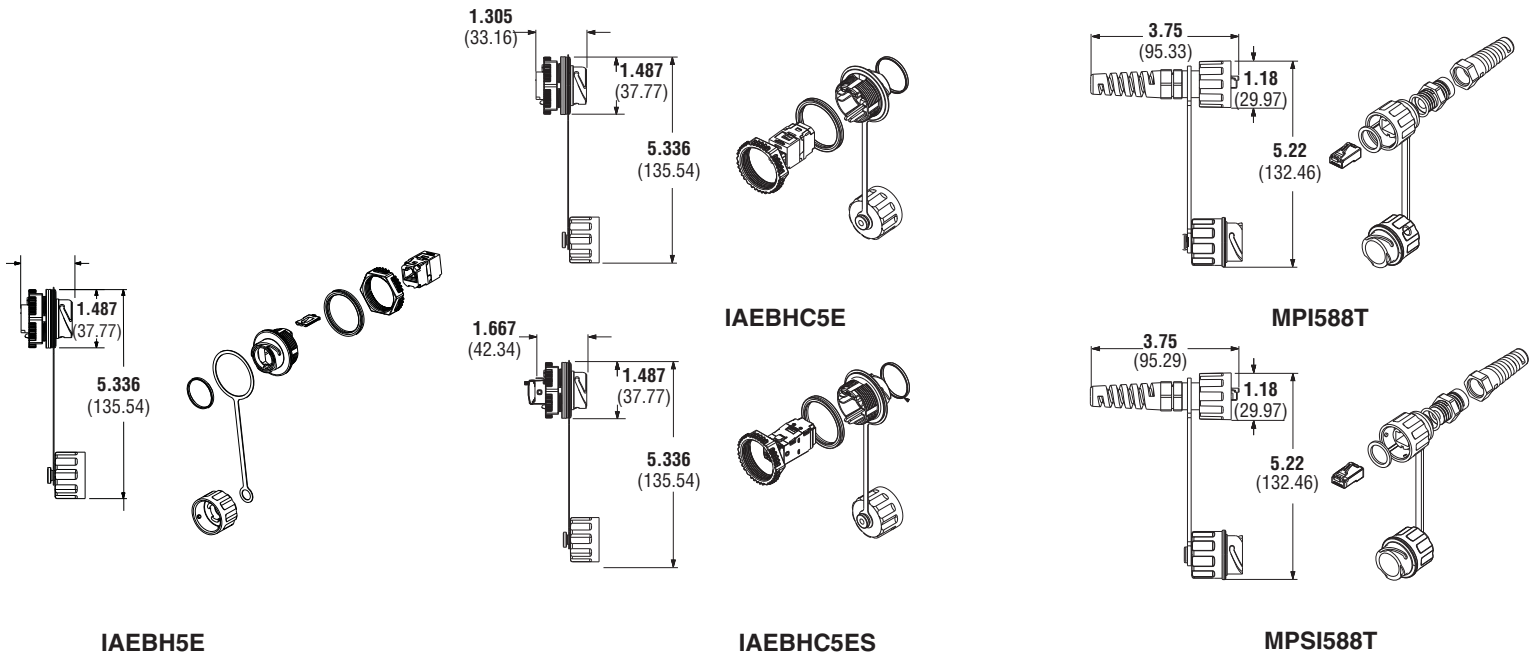
Performance Test	Test Method	100MHz Required Performance (dB)	100MHz Typical Test Results (dB)
NEXT	Additional Transmission	> 43	> 45
FEXT	Performance Specifications	> 35	> 37
Attenuation	for 4-pair ohm Category 5e	< 0.40	< 0.10
Return Loss	Cabling, ANSI/TIA-568-C.2	> 20	> 30

Consult technical support for cable brand specific channel test results.

Mechanical Test	Test Method	Measurement	Required Performance
Normal Force	—	Load (grams)	> 150
Vibration	IEC 512-6d	Circuit Resistance Change (mOhms)	< 1
Shock	IEC 512-6c	Contact Disturbance (microsecond)	< 1
Durability	IEC 512-9a	Circuit Resistance Change (mOhms)	< 5
Mating/Unmating	IEC 512-13b	Mating Force (N)	< 15
		Unmating Force (N)	< 15

Mechanical Test	Test Method	Measurement	Required Performance
Low Level Circuit Resistance	IEC 512-2a	Resistance (mOhms)	< 5
Dielectric Withstand Voltage	IEC 512-4a	1000VAC, 1 minute	Passed
Insulation Resistance	IEC 512-3a	Resistance (MOhms)	> 1000

Mechanical Test	Test Method	Measurement	Required Performance
Temperature Life	IEC 512-9b	Circuit Resistance Change (mOhms)	< 1
Humidity	IEC 512-11c	Circuit Resistance Change (mOhms)	< 2
Thermal Shock	IEC 512-11d	Circuit Resistance Change (mOhms)	< 5
Climactic Sequence	IEC 512-11a	Circuit Resistance Change (mOhms)	< 5
Flowing Mixed Gas Corrosion	IEC 512-11g	Circuit Resistance Change (mOhms)	< 5



Dimensions are in inches (Dimensions in parentheses are metric)

WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA
Markham, Ontario
cs-cdn@panduit.com
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
cs-emea@panduit.com
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
cs-ap@panduit.com
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
cs-japan@panduit.com
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA
Jalisco, Mexico
cs-la@panduit.com
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
cs-aus@panduit.com
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300 and reference COSP18

PANDUIT®

©2010 Panduit Corp.
ALL RIGHTS RESERVED.

WW-COSP18

9/2010