IndustrialNet™ Category 6A RJ45 Bulkhead Mounted Jack with Variant 5 Housing

specifications

The RJ45 industrial Ethernet connector shall meet/exceed the ANSI/TIA-568-C.2 standard for Category 6A performance requirements. The jack housing shall conform to IEC 61076-3-106, Variant 5. The jack shall consist of 8 pins and 8 contacts and terminate 4-pair, 26-22 AWG, 100 ohms, solid or stranded conductor, shielded or unshielded, twisted pair cable. The cable shall have a maximum conductor insulation diameter of 0.063 in. (1.60mm) and jacket diameter ranging between 0.197 in. to 0.394 in. (5.0-10.0mm). Terminations shall not require the use of a punchdown tool. The bulkhead RJ45 jack shall incorporate an IP65 / IP67 rated seal and shall be designed to provide protection from dust and temporary immersion in water typically found in harsh industrial environments. An optional protective cap shall ensure IP65 / 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. An IP65 / IP67 rating shall be achieved when mated with the corresponding RJ45 plug installed into the Variant 5 housing.

technical information

Category 6A/Class E$_A$ channel and component performance:	Exceeds channel and component requirements of ANSI/TIA-568-C.2 Category 6A and ISO11801 Class E$_A$ standards at swept frequencies 1 to 500 MHz
IEC compliance:	Jack meets IEC 60603-7; housing meets IEC 61076-3-16 Variant 5
UL compliance:	Compliant to UL 1863
Environmental protection:	Industrial bulkhead connection 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 microinches of gold for superior performance
IP compliance:	Bulkhead connection rated IP65 / IP67 for dust protection and temporary liquid immersion
RoHS compliancy status:	Compliant
PoE compliancy:	Meets IEEE 802.3af and IEEE 802.3at for PoE applications
Materials:	Jack housing constructed of zinc die cast; protective cap constructed of powder coated aluminum die cast
Temperature rating:	-40°F to 158°F (-40°C to 70°C) during operation
Cable diameter range:	0.197in. to 0.394in. (5.0 to 10.0 mm)
Conductor termination range:	Solid conductor: AWG 26/1 to AWG 22/1 (0.40mm to 0.64mm); Stranded conductor: AWG 26/7 to AWG 22/7 (0.48mm to 0.76mm)
Conductor insulation diameter:	0.034in. to 0.063in. (0.85mm to 1.6mm)
Number of mating cycles:	750 connections and disconnections

key features and benefits

IP rated connection:	Withstands harsh factory environments without loss of performance in light wash down and temporary submerged conditions when mated to IP65/IP67 IndustrialNet™ Connectors
Bulkhead fasteners:	Eliminate the potential for module rotation
Protective gaskets:	Ensure environmental protection
Robust construction:	Plug contact plated with 50 microinches of gold to support reliable, error-free data transmission
Mated bayonet tactile lock:	Ensures positive mating between the plug and connector; rated to 750 mating cycles
Optional protective cap:	Maintains IP65 / IP67 seal during unmated connection
Forward motion termination:	Speeds installation and places no impact on critical components for maximum reliability
RJ45 interface:	Offers industry standard solution familiar to end users which speeds deployment
Universal wiring scheme:	Termination cap is color coded to T568A and T568B wiring specifications for easy installation

applications

IndustrialNet™ Cat 6A RJ45 Bulkhead Mounted Jack with Variant 5 Housing provides 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 70°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, IndustrialNet™ Cat 6A RJ45 Bulkhead Mounted Jack with Variant 5 Housing protects the RJ45 mating.

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Sidebar

IndustrialNet™ Category 6A RJ45 Bulkhead Mounted Jack with Variant 5 Housing

Jack:	IAEBHV56XS
Protective cap:	IAEBHV5C

IndustrialNet™ Category 6A RJ45 Plug with Variant 5 Housing

Plug:	MPSIV56XT
Protective cap:	MPIV5C

IndustrialNet™ Category 5e SF/UTP Copper Cable

CM	
2-pair:	ISFCH5C02A*-XG
4-pair:	ISFCH5C04A*-XG
Flame retardant, halogen-free	
2-pair/color Teal:	ISFX5502ATL-LED
2-pair/color Red:	ISFX5502ARD-LED

IndustrialNet™ Category 5e F/UTP Copper Cable

CM 4-pair/ color Black:	IFC5C04BBL-CEG

IndustrialNet™ Category 5e U/UTP Copper Cable

CM 4-pair/ color Black:	IUC5C04ABL-CEG

IndustrialNet™ Category 6 F/UTP Copper Cable

CM 4-pair/ color Black:	IFC6C04BBL-CEG

IndustrialNet™ Category 6 U/UTP Copper Cable

CM 4-pair/ color Black:	IUC6C04ABL-CEG

IndustrialNet™ Category 6 S/FTP Copper Cable

Flame retardant, halogen-free	
4-pair/color Yellow:	ISX6004AYL-LED
4-pair/color Red:	ISX6004ARD-LED

IndustrialNet™ M12 D-Code Field Terminable Plug

Field terminable plug:	ISPS5E44MFA

IndustrialNet™ M12 X-Code Field Terminable Plug

Field terminable plug:	ISPS6A88MFA

IndustrialNet™ Category 5e Shielded 600 V-Rated Patch Cords

CM/CMX outdoor:	**ISTPHCH1MTL

IndustrialNet™ M12 D-Code to RJ45 Panel Mount Adapter

Panel mount adapter:	ICAM12DRJS

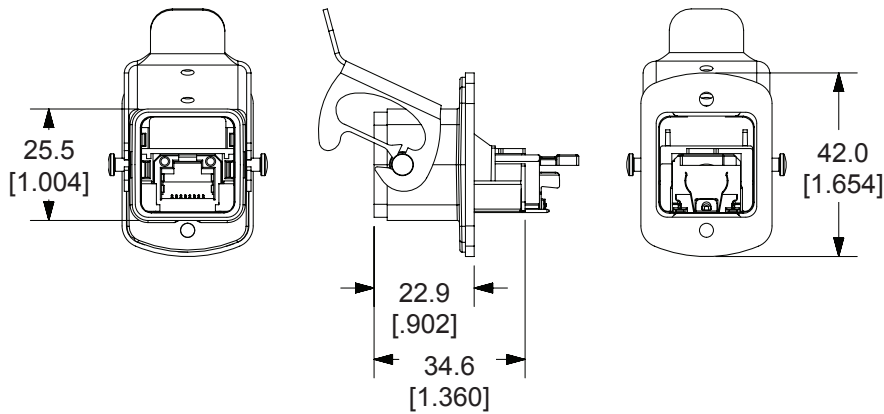**IndustrialNet™ DIN Rail Mount Patch Panel**

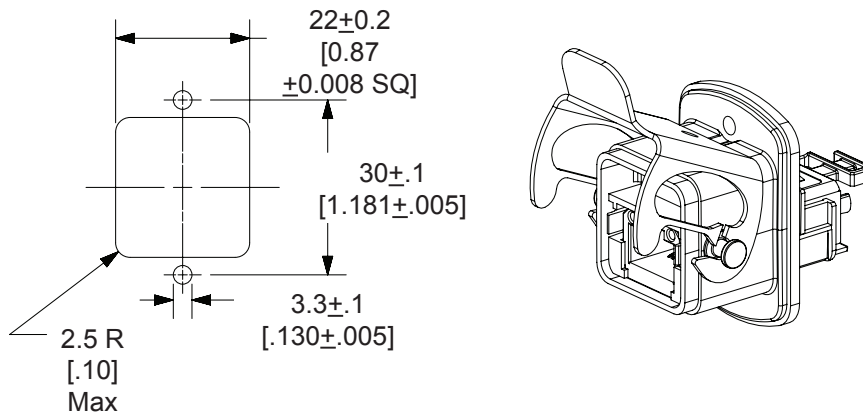|	
8-port:	CDPP8RG

Mini-Com® DIN Rail Mount Adapter

1-port:	CADIN1IW***

*To designate color, add suffix TL (Teal), BL (Black), RD (Red), BU (Blue), GY (Gray), or YL (Yellow).
**For other lengths, change the length designation (1M) of the part number to the desired length (0.3M, 0.6M, 2M, 3M, 5M or 10M); to designate color replace TL (Teal) suffix with BL (Black), RD (Red), or YL (Yellow). For example, the part number of a 2-meter teal patch cord is ISTPHCH2MTL.
***For Standard colors other than Off White, replace IW in part number with BL (Black), EI (Electric Ivory), IG (International Gray), or WH (White).

25.5
[1.004]

22.9
[.902]

34.6
[1.360]

42.0
[1.654]

Panel Cutout

22±0.2
[0.87
±0.008 SQ]

30±.1
[1.181±.005]

3.3±.1
[.130±.005]

2.5 R
[.10]
Max

Mounting Dimensions
Wall thickness >1mm (0.039")

Dimensions are metric. [Dimensions in brackets in inches.]

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For more information

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