THE DATASHEET OF

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Modular, stackable Stac64™ connection system offers single- and multi-bay header solutions to maximize design flexibility in unsealed Transportation applications and greatly reduces time-to-market by eliminating custom tooling

The Stac64™ family of stackable, unsealed headers and connectors has been extended to include a 14-circuit hybrid receptacle connector and mating 14-circuit vertical and right-angle headers to meet growing in-vehicle terminal requirements for devices and modules. Using the Stac64 system, customers can quickly produce ganged, single- and multi-bay header assemblies to meet a large range of signal and power needs without the need for custom tooling.

The 14-circuit hybrid female receptacle uses 10 x CTX 064 plus 4 x 2.80mm terminals and, together with the headers, is available in all 3 USCAR polarization options (black, brown and grey colour codings).

The Stac64 connection system, validated to USCAR-2 for unsealed applications, also meets the most stringent specifications from main automotive OEMs across the globe, including PSA, Ford, Nissan, Toyota and VW. A worldwide DVPR with test details can be requested from Molex. For additional information visit:
http://www.molex.com/link/stac64.html

Features and Benefits

Stackable, modular system of readily available 2.54mm pitch PCB headers	Supports single- and multi-pocket applications for greater design flexibility Reduces cost; no tooling necessary to produce custom multi-bay headers
0.64, 1.50 and 2.80mm terminal system in vertical and right-angle configurations and multiple circuit sizes	Supports both low-level signal requirements and power needs up to 30.0A Provides design flexibility
Validated to USCAR-2 Class II for unsealed connector applications and meets most stringent specifications from global automotive OEMs	Industry-standard footprint validated for automotive applications
Headers and receptacle housings molded in standard USCAR color schemes	Color coding offers visual polarization and avoids mis-mating during system assembly
Housings feature pre-assembled Terminal Position Assurance (TPA) retention features and are shipped as single assembly	Greatly reduces the possibility of seating TPA's during transit and handling Provides applied labor and cost savings
PCB alignment post feature	Ensure all terminals are properly aligned into PCB through-holes during assembly Retain header to PCB during assembly and solder processing
PCB stand-offs molded into housings	Provide additional trace-routing real estate under the headers

Stac64™ Connection System Unsealed Headers and Receptacles

This Release:

34969 14-Circuit Hybrid Receptacle Connector
34773 14-Circuit Hybrid Right-Angle Header
34772 14-Circuit Hybrid Vertical Header

Previously Released:

Headers
34690 Vertical
34695 Hybrid Vertical
34691 Right-Angle
34696 Hybrid Right-Angle

Ganged Headers
34707 Vertical
34708 Right-Angle

Receptacle Connectors
34729 8-, 12-, 16-, 20-Circuit
31372 10-Circuit Hybrid

Female Terminals
34803 CTX64
33012 MX150

Stac64™ Connection System. 20 circuit right-angle ganged headers and mating receptacle shown

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Stac64™ Connection System Unsealed Headers and Receptacles

Applications

Unsealed applications in:

Automotive vehicles
- In-car entertainment
- Interior lighting and navigation
- Instrument panel clusters
- Power seat modules
- Door zone modules

Commercial vehicles
- Interior electronic modules
- Body electronic modules

Interior lighting

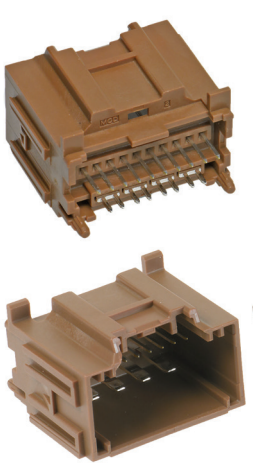
In-car entertainment

Power seat modules

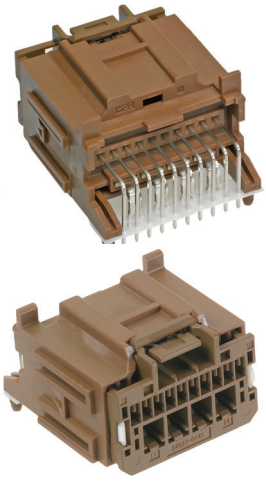
Navigation systems

Additional Product Features

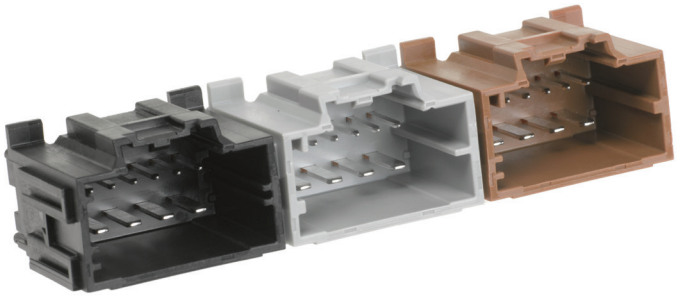
New 14-Circuit Hybrid Connection System



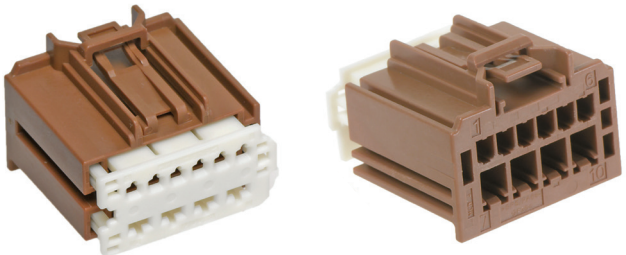
Series 34772, 14-circuit
hybrid vertical header



Series 34773, 14-circuit
hybrid right-angle header



Available USCAR polarization options:
black, grey, brown *(10-circuit shown)*



Series 34969, 14-circuit
hybrid female receptacle

For further information on the complete Stac64™ Connection System please refer to Molex product brochure: Order No. 987650-4561

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Stac64™ Connection System Unsealed Headers and Receptacles

Specifications

REFERENCE INFORMATION

Packaging:
- Female Receptacles – Bulk pack
- Male Vertical/Right-Angle Headers – Tray or tube
- Terminals – Reel

Mates With:
- Series 34729 and 31372 female connectors mate to Series 34690, 34691, 34695, 34696 male unsealed headers
- Series 34969 female connectors mate to Series 34773 (R/A) and 34772 (vertical) unsealed headers

Use With Terminals:
- 0.64mm female – Molex CTX64 series 34803
- 1.50mm female – Molex Series 33012
- 2.80mm female - Tyco and Yazaki

Designed in: Millimeters

Isolation Resistance: 20 Megohms min.

ELECTRICAL

Voltage (max.): 500V

Current (max.):
- 2.80mm – 30.0A
- 1.50mm – 20.0A
- 0.64mm – 6.0A
- Current is dependent on connector size, ambient temperature, blade size and related factors.

Contact Resistance:
- 2.80mm – 5 milliohms max.
- 1.50mm – 10 milliohms max.
- 0.64mm – 20 milliohms max.

Dielectric Withstanding Voltage:
- 500V DC

PHYSICAL

Harness Housings:
- 10-Circuit: SPS/PA66 GF 30%
- 8-, 12-, 14-, 16-, 20-Circuit: PBT GF 30%

TPA's:
- 10-Circuit: PBT GF 15%
- 8-, 12-, 14-, 16-, 20-Circuit: PBT GF 30%

Header Housings: 30% glass filled SPS

Contact:
- 2.80mm blades – C19400 Copper (Cu) Alloy
- 1.50mm blades – C19400 Copper (Cu) Alloy
- 0.64mm pins – C26000 Copper (Cu) Alloy

Plating:
- 0.64mm signal pins and 1.50mm blades:
  - Overplating – Tin (Sn)
  - Underplating – Nickel (Ni)
- 1.50mm receptacle terminals:
  - Overplating – Tin (Sn)
  - Underplating – Nickel (Ni)
- 2.80mm blades:
  - Overplating – Tin (Sn)
  - Underplating – Nickel (Ni)

Operating Temperature:
- -40 to +105°C

MECHANICAL / ELECTRICAL

Mating Force: < 75N

Unmating Force: < 60N

Connector Retention (Primary latch):
- 110N min.

Contact Retention to Housing:
- 2.80mm – 90N min. w/TPA; 60N w/o TPA
- 1.50mm – 85N min. w/TPA; 45N w/o TPA
- 0.64mm – 75N min. w/TPA; 30N w/o TPA

Contact Insertion Force Into Housing: 30N max.

Connector Audible Feedback: 7dB over ambient

Polarization Feature Effectiveness:
- 20-Circuit: 90N min.
- All other circuit sizes: 150N

Durability: 10 milliohms max. – 10 cycles

TPA Insertion Force: 60N max.

TPA Extraction Force: 60N max.

Product Specifications: Signal - PS-34729-100; Power: PS-31372-100; Power 14-circuit: PS-34772-100

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Ordering Information

Headers
34690 Vertical
34695, 34772 Hybrid Vertical
34691 Right-Angle
34696, 34773 Hybrid Right-Angle

Headers

*Order No.	Circuit Size	Orientation	Packaging	Header Type	Pin Alignment Plate Material	Solder Process	Mates with Receptacle
34690-008*	8	Vertical	Tray	Signal	Mylar	Wave Solder	34729-008*
34690-908*			Tube				
34690-012*	12		Tray				34729-012*
34690-912*			Tube				
34690-016*	16		Tray				34729-016*
34690-916*			Tube				
34690-020*	20		Tray				34729-020*
34690-920*			Tube				
34695-010*	10		Tray	Power			31372-1*00
34695-910*			Tube				
34772-014x	14		Tray				34969-014x
34691-008*	8	Right Angle	Tray	Signal			34729-008*
34691-908*			Tube				
34691-012*	12		Tray				34729-012*
34691-912*			Tube				
34691-016*	16		Tray				34729-016*
34691-916*			Tube				
34691-020*	20		Tray				34729-020*
34691-920*			Tube				
34696-010*	10		Tray	Power			31372-1*00
34696-910*			Tube				
34773-014x	14		Tray				34969-014x

Ganged Headers
34707 Vertical
34708 Right-Angle

Ganged Headers

*Order No.	Orientation	Number of Bays	Assembly Features
34707-2***	Vertical	2	Housing and Pin Assembly
34707-3***		3	
34707-4***		4	
34708-2***	Right-Angle	2	Housing, Pins and Mylar Assembly
34708-3***		3	
34708-4***		4	

*Multiple color and polarization options available; search Molex website on series number to select complete order numbers required.
For custom configurations please contact your customer service representative.

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Ordering Information

Receptacle Connectors
34729 8-, 12-, 16-, 20-Circuit
31372 10-Circuit Hybrid
34969 14-Circuit Hybrid

Receptacles

*Order No.	Circuit Size	Connector Type	Terminal loading		
			0.64mm	1.50mm	2.80mm
34729-008*	8	Signal	8	-	-
34729-012*	12		12		
34729-016*	16		16		
34729-020*	20		20		
31372-1*00	10	Power	-	6	4
34969-014x	14		10	-	

*Multiple color and polarization options available; search Molex website on series number to select complete order numbers required.

Polarization Options
A= Black
B= Grey
C= Brown
D= Green (20 Circuit only)

Female Terminals
34803 CTX64
33012 MX150

Female Terminals

Order No.	Terminal Size (mm)	Terminal Type	Source	Gender	Plating	Wire Size (AWG)	Use With: Circuits (Molex series)
34803-0211	0.64	CTX64	Molex	Female	Tin (Sn)	22	8, 12, 16, 20 (34729)
34803-0212						20	
33012-2001	1.5	MX150				14 or 16	10, 14 (31372, 34969)
33012-2002						18 or 20	
33012-2003						22	
1326030-4	2.8	-	Tyco			10 or 12	
1326030-3						14 or 16	
1326030-2						18 or 20	
1326030-1						22	
7116-4112-02	2.8	-	Yazaki			14	
7116-4111-02						16 or 18	
7116-4110-02						20 or 22	

www.molex.com/link/stac64.html

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

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- Molex, LLC Information

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