

## **Quick Reference Guide**

## 1.5 mm AMP Mini CT Connector Series

The AMP Mini CT connectors are miniature wire-to-board and wire-to-wire connectors. Like the standard AMP CT connector series, these connectors are tailored for improved harness productivity and feature a compact design with contacts on 1.5 mm pitch. Wire-side connectors can be used to produce a variety of harness styles by fully automatic high-speed assembling machines.

### **FEATURES AND BENEFITS**

- 2 kinds of termination method: IDC, crimp
- Discrete wire interconnect
- Circuits range from 2-20 single row, 22-40 dual row
- AWG 24~28
- Both T/H and SMT mounting styles are available
- Kinks for self-retention on boards
- Many components are recognized under the component program of Underwriters Laboratories Inc., file No. E28476
- Certified by Canadian Standards Association, File No. LR 7189

### **PRODUCT APPLICATIONS**

- Business equipment
- Industrial machines
- PC, Printer and Fax
- C-TV
- Audio
- Air conditioner
- Routed power & signals
- LED lighting controls
- Indoor & outdoor lighting
- LED illumination



### How to select an AMP Mini CT connector part number

The charts on this page highlight the relationship between the number of contacts (positions) to the part number. Please see the sample chart below that was designed to help you select the correct part number for your needs. For single digit position to dash numbers, attach the digit to the end base number. For double digit position to dash numbers, attach the first digit to the front of the part number, add a dash and the base part number, then follow the base part number with a dash and the second digit.

Example Base Part Number	Your Criteria	Example Position to Das	h Selec	tion				End Part Number Based on Criteria
		Position	8	9	10	11	12	
353293	You require and 8 position MT housing	Dash Number	-8	-9	-10	-11	-12	353293-8
353293	You require and 12 position MT housing	Dash Number	-8	-9	-10	-11	-12	1-353293-2

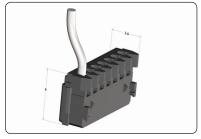
### Mass Termination (MT) VS. Crimp Poke

- · Time savings
- Preloaded IDC contacts
- Automation
- · Mates with all headers

### **Crimp Poke**

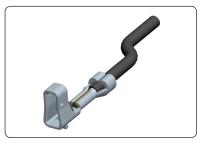
- · Cost effective
- · Flexibility (AWG)
- Manual labor
- · Mates with all headers

### MT AMP Mini CT Housing: 353293

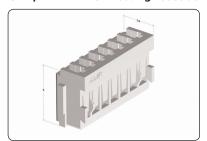


Unstripped wires inserted into MT housing.

### Crimp AMP Mini CT Contact: 353907



Crimp AMP Mini CT Housing: 353908



Contact crimped onto a stripped wire to be inserted into a crimp housing.

### **Cable Side Connectors**

RECEPTACLE CONNECTORS (	WIRE AP	PLICATI	ON)																		
Description	PN	Photo						P	osition	to Da	sh										
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
MT receptacle housing - AWG : 26-28	353293	A	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
			Matin	g Part	Numbe	rs: 292	206; 29	2207; 2	92227;	292228	3; 29223	39; 292	231; 29:	2215; 2	92208;	292216		Sp	ecifica	tions: (	C, X

CONTACTS			
Description	PN	Photo	Specifications
Reel-AWG: 24-28	353907-1	В	B,Y
Loose Piece - AWG: 24-28	353918-1	В	B,Y

CRIMP TYPE HOUSING																					
Description	PN	Photo						Po	sition	to Da	sh										
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Crimp receptacle housing - White	353908	С	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
			Matin	g Part	Numbe	rs: 292	206; 29	2207; 2	92227;	292228	3; 29223	39; 2922	231; 29:	2215; 2	92208;	292216			Specif	ication	s: B

### **Cable Side Connectors: Tooling Options**

APPLICATION TOOL	.ING				
AMP Mini CT PN	Description	Tooling PN	Tooling Description	Application Specification	Instruction Sheet
393293	MT Housing	937317-1	Pistol Tool	114-5223	411-5826
252007.4	Crima Contact Strin	1426169-1	Leadmaker Applicator	114-5245	411-78049
353907-1	Crimp Contact - Strip	1426169-2	Bench Application	114-5245	411-78049
179518-1	Crimp Contact - Loose	1729069-1	Hand Tool	114-5245	411-78106

<sup>\*</sup> Applicators listed are used in the AMP-O-LECTRIC Model G, AMP 3K/40 and AMP 5K/40 Terminators. Call the Tooling Assistance Center at 800-722-1111 for applicator numbers for Automatic Cut, Strip and Terminate Leadmakers.



wer tooling options are also available. Call Tooling Sales at 888-777-5917 (717-810-2080) for more informatio

### **Photo Key**

**Dual Row Assemblies** 















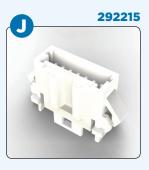






















Designed to secure the SMT headers onto the PCB



A mechanical feature that helps orientate the headers onto the PCB.









SINGLE ROW POST HEADER AS	SEMBLI	ES : BC	ARD	-мо	UNT																
Description	PN	Photo						Po	sition	to Da	ish										
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
T/H Type Horizontal-Mount Type, w/o Boss	292206	D	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
T/H Type Vertical-Mount Type, w/ Boss	292207	E	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
SMT Type Horizontal-Mount Type, w Boss	292227	F	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
SMT Type Horizontal-Mount Type, w/o Boss	292228	G	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
SMT Type Vertical-Mount Type, w Boss	292230	н		-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
SMT Type Vertical-Mount Type, w/o Boss	292231	ı		-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
					/lating	Part N	umber	rs: (MT	3532	93 or (	Crimp)	35390	8 w/ 35	3907-	1 or 35	3918-1		Spe	cificati	ons: A	. X

SINGLE ROW POST HEADER	ASSEMBLI	ES : PA	NEL-	MOL	JNT																
Description	PN	Photo						Po	sition	to Da	sh										
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Single Row Panel-Mount	292215	J	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20
				N	/lating	Part N	umber	s: (MT	) 3532	93 or (0	Crimp)	35390	8 w/ 35	3907-1	1 or 35	3918-1		Spe	cificat	ions: A	λ, X

DUAL ROW HEADERS						,	,		,	,		,		
Description	PN	Photo				Po	sition	to Da	sh					
			22	24	26	28	30	32	34	36	38	40		
Receptacle Housing Connector Mounting Holder	353294	К	-22	-24	-26	-28	-30	-32	-34	-36	-38	-40		
		Note: Two											Specifications	:: C, X

DUAL ROW POST HEADER ASSEMBLIES	: BOARD	-MOUN	т												
Description	PN	Photo				Po	sition	to Da	sh						
			22	24	26	28	30	32	34	36	38	40			
Dual Row T/H Type/ Vertical-Mount	292208	L	-22	-24	-26	-28	-30	-32	-34	-36	-38	-40			
Dual Row SMT Type/ Vertical Mount Type w/Boss	292229	М		-24	-26	-28	-30	-32	-34	-36	-38	-40			
Dual Row T/H Type/ Horizontal Mount w/ Board Lock	292262	N	-22	-24	-26	-28	-30	-32	-34	-36	-38	-40			
			Mati	ng Par	t Num	bers: 3	53294	w/ 2 x	MT or 2	x Crim	p Sing	le Row	Housings	Specific	ations: A, C, X

DUAL ROW POST HEADER ASSEMBLIES	: PANEL-MOUNT													
Description	PN				Po	sition	to Da	sh						
		22	24	26	28	30	32	34	36	38	40			
Dual Row Panel-Mount	292216	-22	-24	-26	-28	-30	-32	-34	-36	-38	-40			
		Mat	ing Pai	rt Num	bers: 3	53294	w/ 2 x ľ	MT or 2	x Crim	p Sing	e Row	Housings	Specifi	cations: C, X

## 4 Panel-Mount

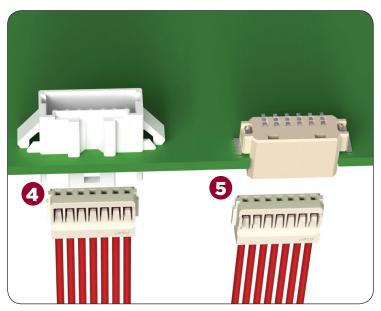
Transmits signal through a notch in a panel or a PCB and requires two housings to complete a circuit.

## 5 SMT Inverted Thru Board

Positioned thru a cutout or notch in a PCB and requires only one housing to complete a circuit. The innovative design eliminates wire dress management issues.

INVERTED THRU BO	ARD						
Description	PN	Photo	Р	ositi	on to	Das	h
			2	3	4	5	6
SMT Type Thru Board	2106091	0	-1	-2	-3	-4	-5
Mating Part Numbers: MT 3	53293 or crim	p 353908		33907 <b>Speci</b>			

MINI CT CABLE ASS	EMBLY					
Description	PN	P	ositi	on to	Das	h
		2	3	4	5	6
Cable Assembly	2058943	-1	-2	-3	-4	-5



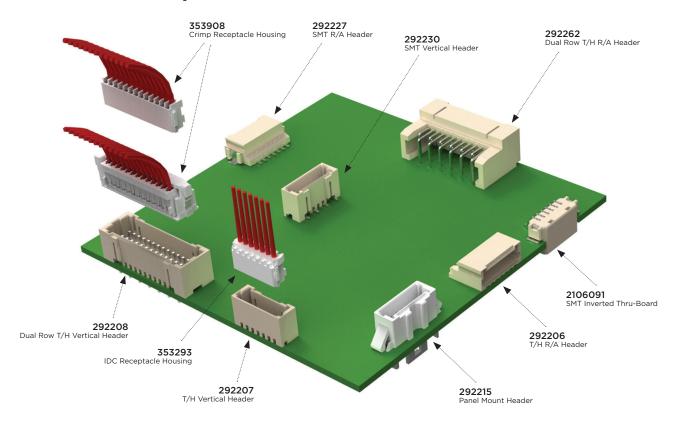


## **Product/Application Specification**

RATINGS								
Product Specs		Voltage	Operating Current (Amps)				Temperature	
			24 AWG	26 AWG	28 AWG	30 AWG	remperature	
Α	108-60018	50 V (AC/DC)	_	2	1	_	-30 to 105°C	
В	108-60025	50 V (AC/DC)	3	2.5	1.5	_	-30 to 105°C	
С	108-5525	50 V AC	_	2	2	_	-65 to 105°C	
D	108-2376	50 V (AC/DC)	3	2.5	1.5	_	-30 to 105°C	

Application Specs						
Х	114-5223					
Υ	114-5245					
Z	114-13245					

### **AMP Mini CT Mount Styles**



### **AMP Mini CT Design Kits\***

Design Kits					
PN	Description				
2110828-1	AMP Mini CT T/H Deluze Vertical and Right Angle Kit				
2110828-2	AMP MIni CT T/H Vertical Header Kit				
2110828-3	AMP Mini CT T/H Right Angle Header Kit				
2110828-4	AMP Mini CT SMT Deluxe Vertical and Right Angle Kit				
2110828-5	AMP Mini CT SMTVertical Header				
2110828-6	AMP Mini CT SMT Right Angle Kit				
2110828-7	AMP Mini CT Deluxe T/H and SMT Vertical and Right Angle Kit				
2110828-8	AMP Mini CT Deluxe T/H Vertical and Right Angle Kit				
2110829-8	AMP Mini CT Deluxe SMT Vertical and Right Angle Kit				

<sup>\*</sup>Design kits are designed and assembled by Waldom and are available for purchase through your local distribution channel.



## Frequently asked questions

#### What wire gauge will you be using?

There is more flexibility with AWG when using Crimp (24-28 AWG) vs. MT (26-28 AWG).

#### Are the connectors available for IDC?

Yes, we offer an MT version that is preloaded with IDC contacts.

#### Is your process automated?

MT housings are suitable for automated processes.

#### What current, voltage and operating temperature is required?

Please see product specification information on the charts on page 3 of this document.

### Which is a more standard header, with or without a locating boss?

The most standard headers tend to have a locating boss as it makes it easier for the customer to align the connector onto their board.

What special retention mechanisms are available to provide

 ${f stability?}$  The TE T/H headers have a staggered tine design to provide stability.

### What are my tooling options?

TE offers comprehensive tooling options including manual pistolgrips, manual mini-press, pneumatic mini-press, semi-auto DECAM and an automatic DECAM tool. For more information, please visit www.tooling.te.com.

## What if my application is constrained for space with the 1.5 mm Mini CT?

TE continues to develop and design interconnects that meet the needs of miniaturized applications. If your application is contrained for space, browse our HPI products at <a href="https://www.te.com/products/hpi">www.te.com/products/hpi</a>

#### Does TE offer pre-made cable assemblies?

Yes, we do offer single ended Mini CT pigtails in various lengths often used in lighting applications. Please reference part number 2058943.

### FOR MORE INFORMATION

### **TE Technical Support Center**

+1 (800) 522-6752 USA: Canada: +1 (905) 475-6222 Mexico +52 (0) 55-1106-0800 Latin/S. America: +54 (0) 11-4733-2200 +49 (0) 6251-133-1999 Germany: UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 +86 (0) 400-820-6015

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined www.te.com/leadfree

### te.com

© 2014 TE Connectivity Ltd. family of companies. All Rights Reserved. 6-1773454-5 CD PDF 04/2014

AMP, AMP-O-LETRIC, AMP 3/K-40, AMP 5/K-40, DECAM, TE Connectivity and the TE connectivity (logo) are trademarks. Other logos, product and company names mentioned herein may be trademarks of their respective owners.



# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity: