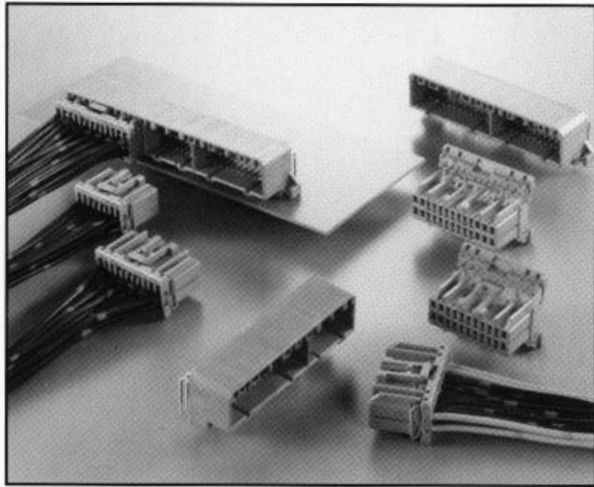


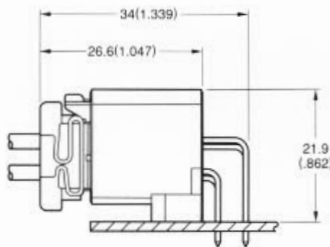
# MX5 SERIES AUTOMOTIVE CONNECTORS

## 040/070 Crimp Contacts, PCB-to-Cable Applications



### FEATURES

- Designed for state-of-the-art interconnections for automotive electronic equipment.
- Designed for high density packaging with numerous contacts in an engine control unit.
- Signal contacts (4 Amps) and power contacts (8 Amps) are housed in the same connector.
- Several wire-terminated sockets are coupled with a pin header mounted on a board.
- Mechanical lock assures positive mating.
- Double locking mechanism avoids contact dislodging.
- Highly reliable socket contacts.
- Simplified crimp type termination.



### GENERAL SPECIFICATIONS

Number of Contacts	Pin: 34, 42, 48, 54, 64, 76 Socket: 12, 16, 22, 26
Contact Spacing	Signal: 3.0mm (.118") Power: 3.5mm (.138")
Current Rating	Signal: 4 Amps, Power: 8 Amps
Dielectric Withstanding Voltage	1000 VAC r.m.s. (for one minute)
Insulation Resistance	100 megohms min.
Contact Resistance	5 milliohms max.
Applicable PCB Thickness	1.6mm (.063")
Operating Temperature	-40°C to +85°C

### APPLICABLE WIRE (Stranded)

Contact Type	Signal	Power
Wire Type (JIS)	AVS, AVSS, AVX	
AWG No.	#24 to #18	#22 to #16, #14 (AVSS)
Conductor Cross Section Area	0.2 to 0.85mm <sup>2</sup>	0.3 to 2mm <sup>2</sup> (Note)
Insulation Outer Dia.	1.2 to 2.2mm (.047 to .087")	1.4 to 2.9mm (.055 to .114")

Note: 2mm<sup>2</sup> for AVSS only.

### MATERIALS AND FINISHES

Description	Materials/Finishes
Insulator	Glass-filled PBT (Green or light blue for 34 contacts only, note 2)
Socket Housing	PBT (Green, note 2)
Contact (note 1)	Pin: Brass, Socket: Phosphor Bronze Finishes: Tin plating or Gold (connecting area) with Solder (terminal area) plating over nickel

Note 1: For pin contacts, tin plating is standard finish. Gold plated contacts can be supplied with standard contacts in the same connector. Please consult JAE for details.

Note 2: The standard color of insulator and socket housings is green. Other colors are available. For details, please consult JAE.

Dimensions and specifications subject to change without notice.



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# MX5 SERIES AUTOMOTIVE CONNECTORS

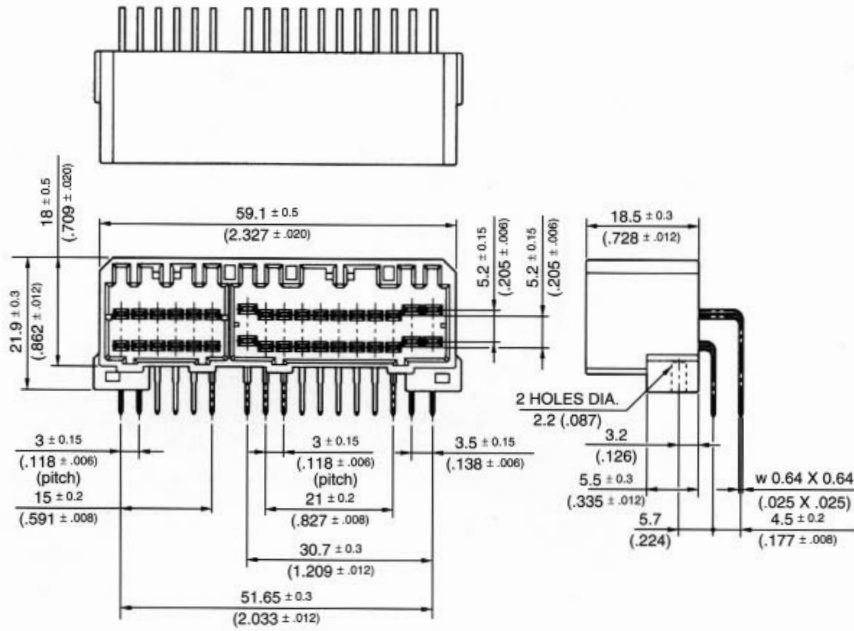
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

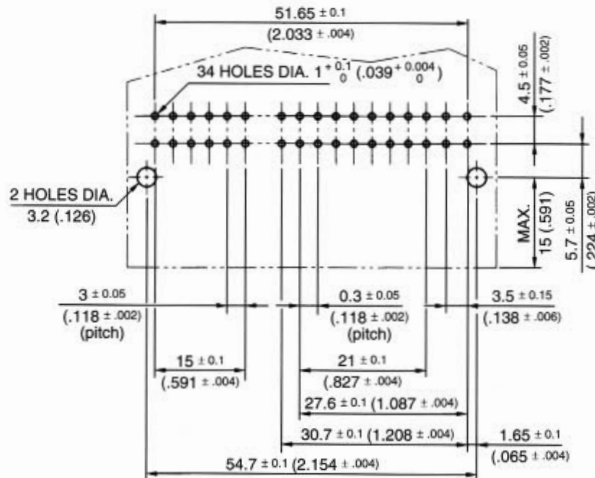
#### 34 Contacts (Signal/28 Positions, Power/6 Positions)

Part Number	Mating Connector	
	Part Number	Contact Position Signal Power
MX5-34P-L-P*S*-LB (**: Gold plated contacts- See page x)	MX5-12S-C-G	12 —
	MX5-22S-C-G	16 6

Note 1: An example of the Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



#### PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws (2 or 4 grades)  
per JIS B 1115, 1122 or 1123

Dimensions in mm (inches).

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# MX5 SERIES AUTOMOTIVE CONNECTORS

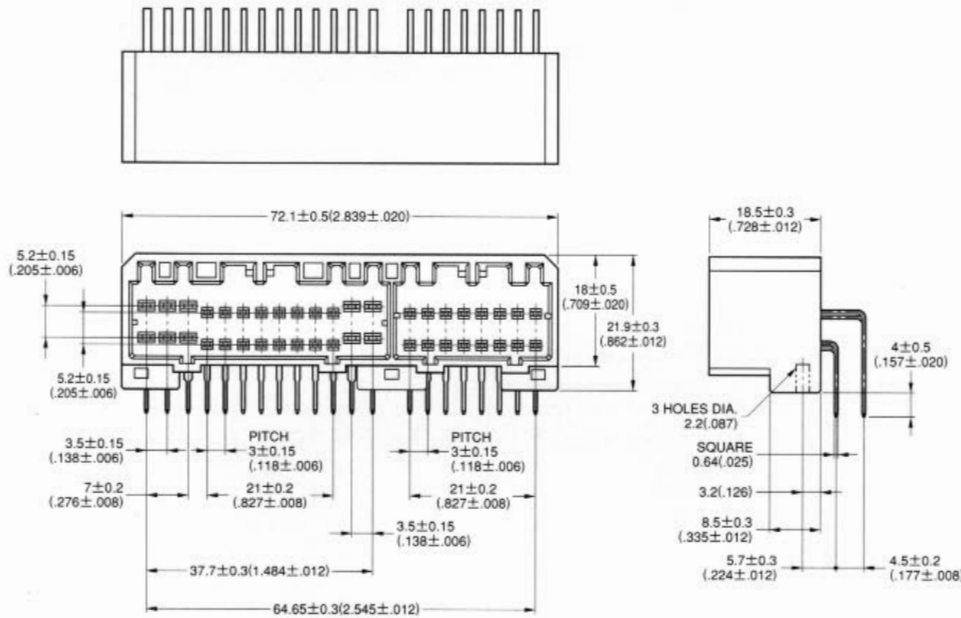
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

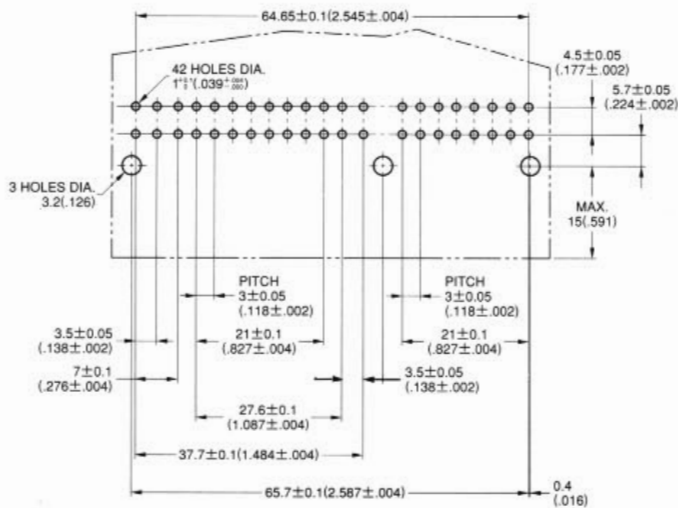
#### 42 Contacts (Signal/32 Positions, Power/10 Positions)

Part Number	Mating Connector	
	Part Number	Contact Position Signal Power
MX5-42P-L-P*S*-G (*: Gold plated contacts- See below)	MX5-16S-C-G	16 —
	MX5-26S-C-G	16 10

Note 1: An example of Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws (2 or 4 grades)  
per JIS B 1115, 1122 or 1123

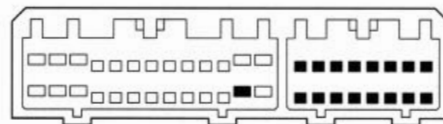
#### \*\* Example of Part No. with Gold Plated Contacts

Part Number: MX5-42P-L-P1 S16-G  
① ②

- Contents (■ mark positions)  
① Power contacts/1 position: P1  
② Signal contacts/16 positions: S16

Finishes of ■ mark positions:  
Gold (connecting area) with solder  
(SnPb • terminal area) plating over nickel.  
Other positions: Tin plating

Front-Face View



Dimensions in mm (inches).



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# MX5 SERIES AUTOMOTIVE CONNECTORS

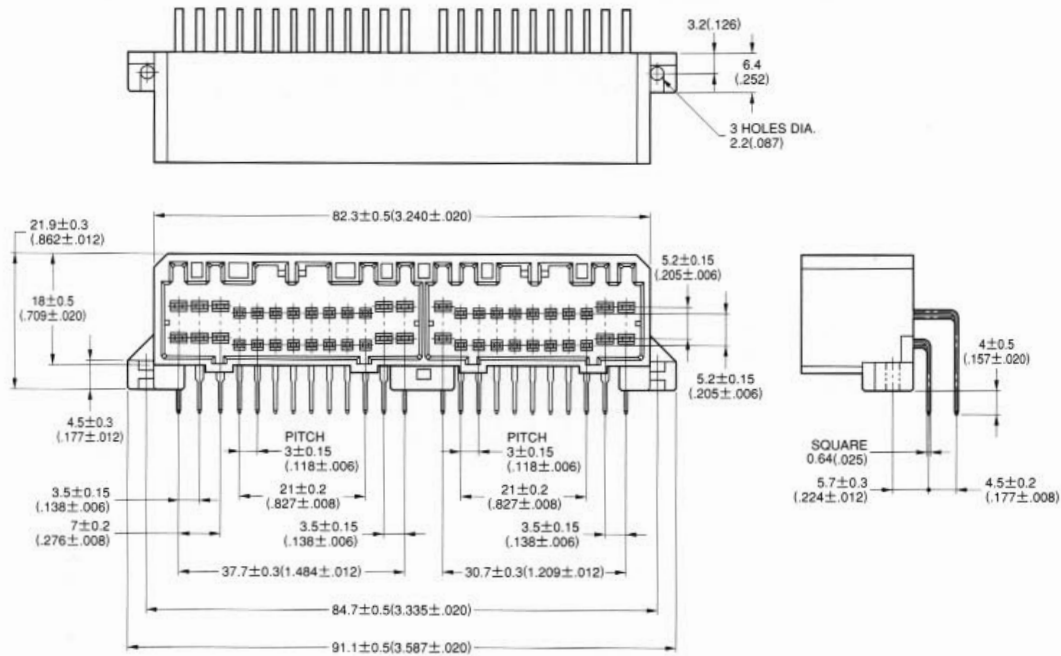
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

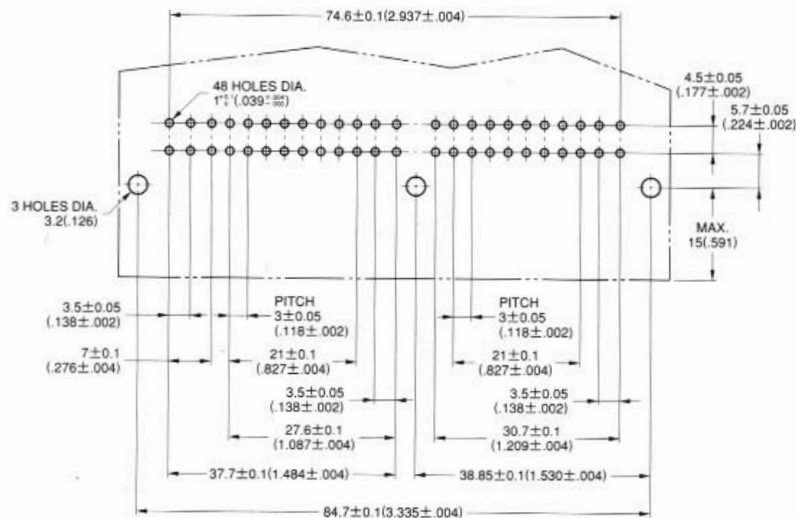
#### 48 Contacts (Signal/32 Positions, Power/16 Positions)

Part Number	Mating Connector	
	Part Number	Contact Position Signal Power
MX5-48P-L-P*S*-G (**: Gold plated contacts- See page 144)	MX5-22S-C-G	16 6
	MX5-26S-C-G	16 10

Note 1: An example of Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



#### PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws (2 or 4 grades)  
per JIS B 1115, 1122 or 1123

Dimensions in mm (inches).

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# MX5 SERIES AUTOMOTIVE CONNECTORS

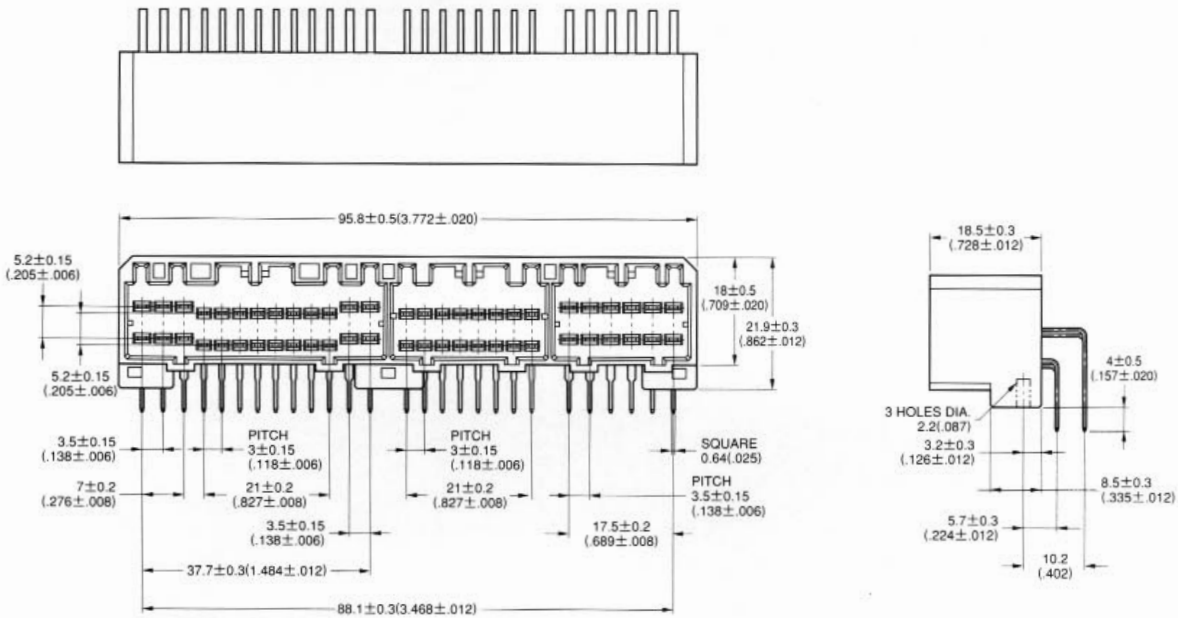
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

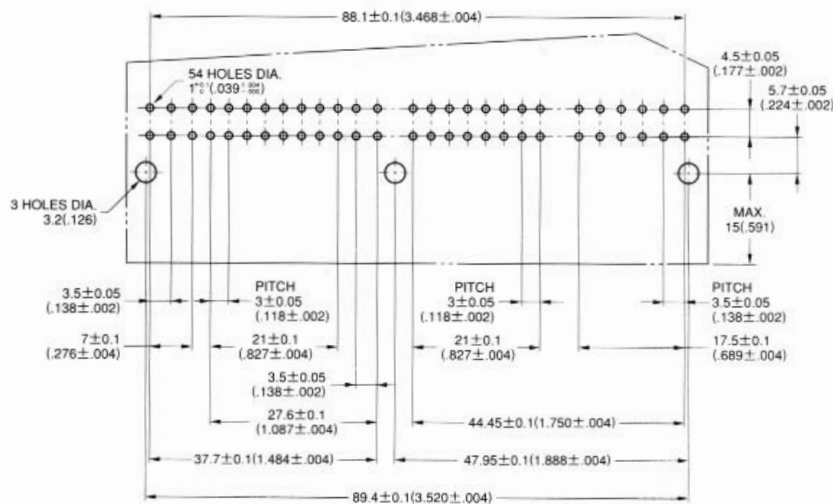
**54 Contacts (Signal/32 Positions, Power/22 Positions)**

Part Number	Mating Connector	
	Part Number	Contact Position Signal    Power
MX5-54P-L-P*S*-G	MX5-12SA-C-G	—    12
(**: Gold plated contacts- See page 144)	MX5-16S-C-G	16    —
	MX5-26S-C-G	16    10

Note 1: An example of Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



### PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws (2 or 4 grades) per JIS B 1115, 1122 or 1123

Dimensions in mm (inches).



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# MX5 SERIES AUTOMOTIVE CONNECTORS

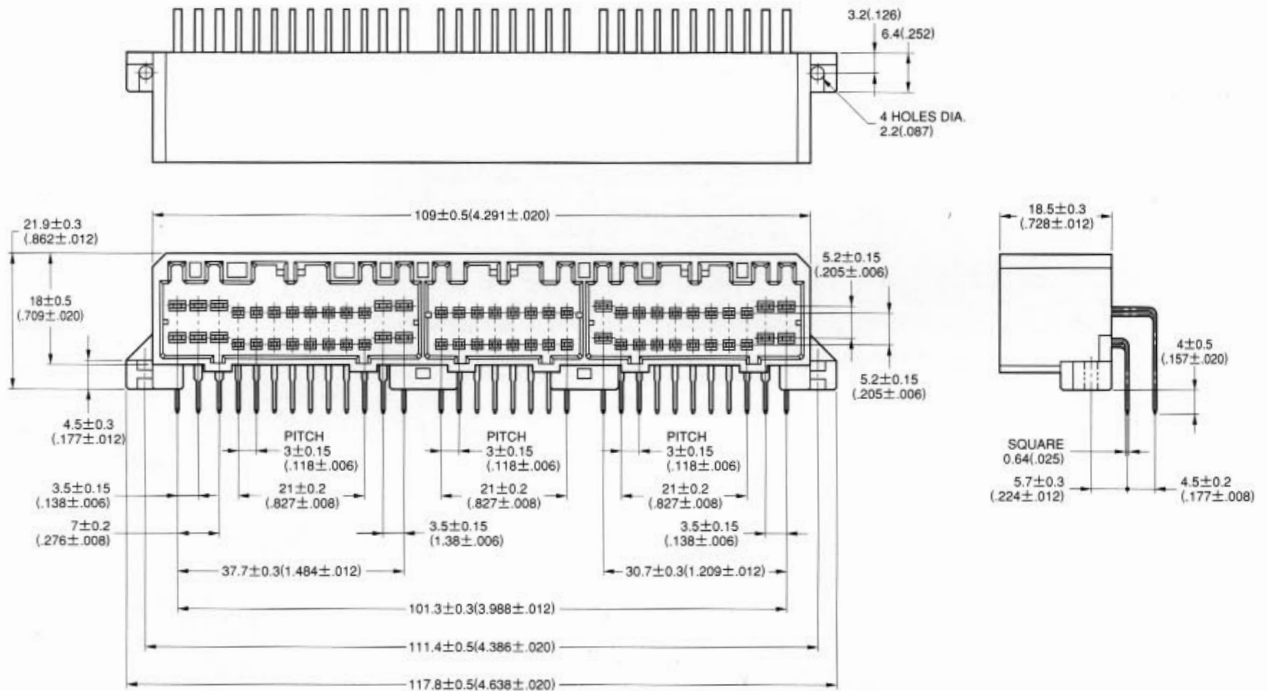
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

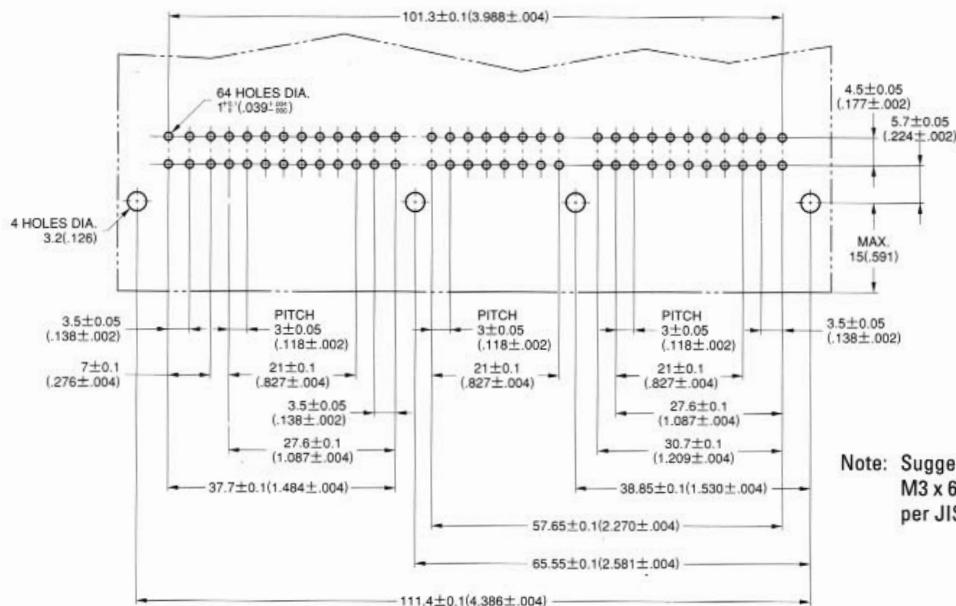
64 Contacts (Signal/48 Positions, Power/16 Positions)

Part Number	Mating Connector	
	Part Number	Contact Position Signal Power
MX5-64P-L-P*S*-G	MX5-16S-C-G	16 —
(**: Gold plated contacts— See page 144)	MX5-22S-C-G	16 6
	MX5-26S-C-G	16 10

Note 1: An example of Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



### PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws (2 or 4 grades)  
per JIS B 1115, 1122 or 1123

Dimensions in mm (inches).

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# MX5 SERIES AUTOMOTIVE CONNECTORS

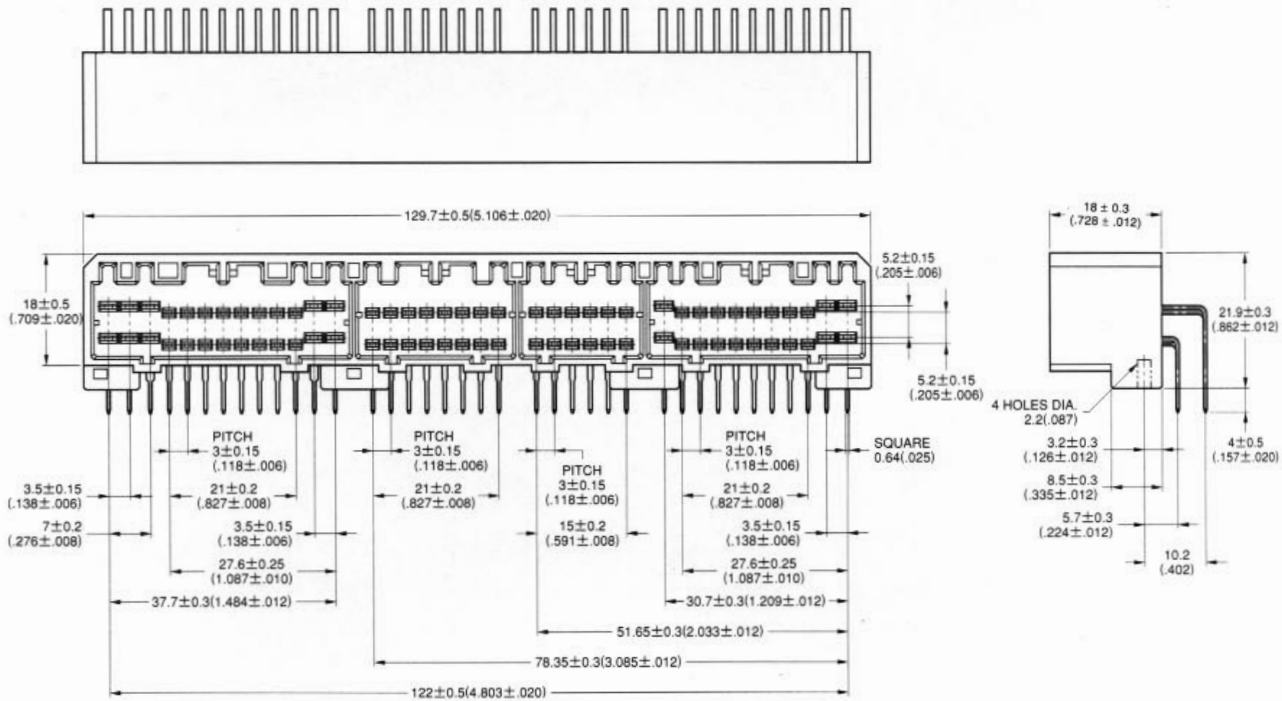
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### RIGHT ANGLE PIN HEADER

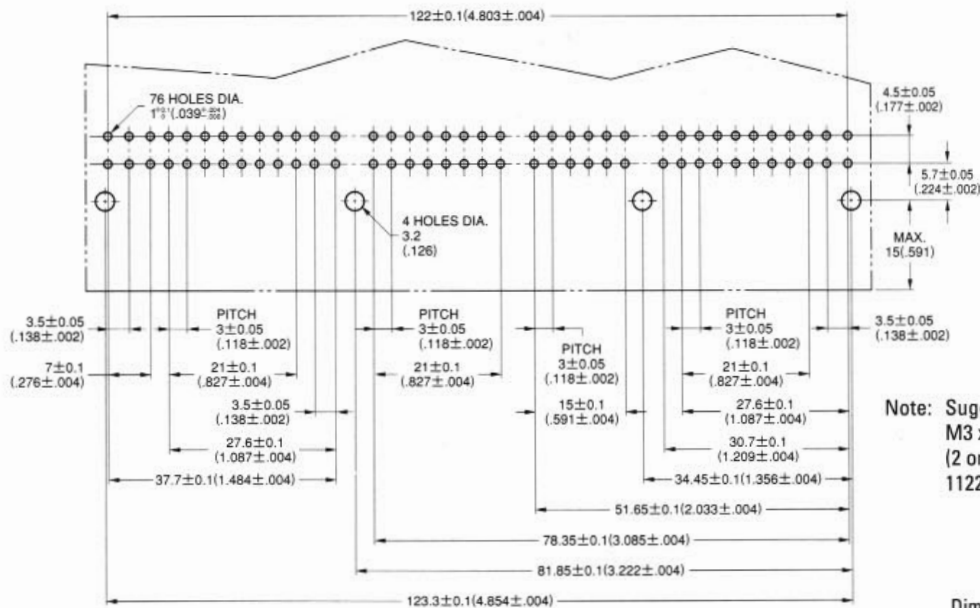
76 Contacts (Signal/60 Positions, Power/16 Positions)

Part Number	Mating Connector	
	Part Number	Contact Position Signal Power
MX5-76P-L-01-P*S*-G  (**: Gold plated contacts- See page 144)	MX5-12S-C-G	12 —
	MX5-16S-C-G	16 —
	MX5-22S-C-G	16 6
	MX5-26S-C-G	16 10

Note 1: An example of Part No. shown above is for a loose item. Connectors are supplied in stick carriers. Consult JAE for ordering details.



PCB Hole Pattern (Ref.)



Note: Suggested screws:  
M3 x 6 tapping screws  
(2 or 4 grades) per JIS B 1115,  
1122 or 1123

Dimensions in mm (inches).



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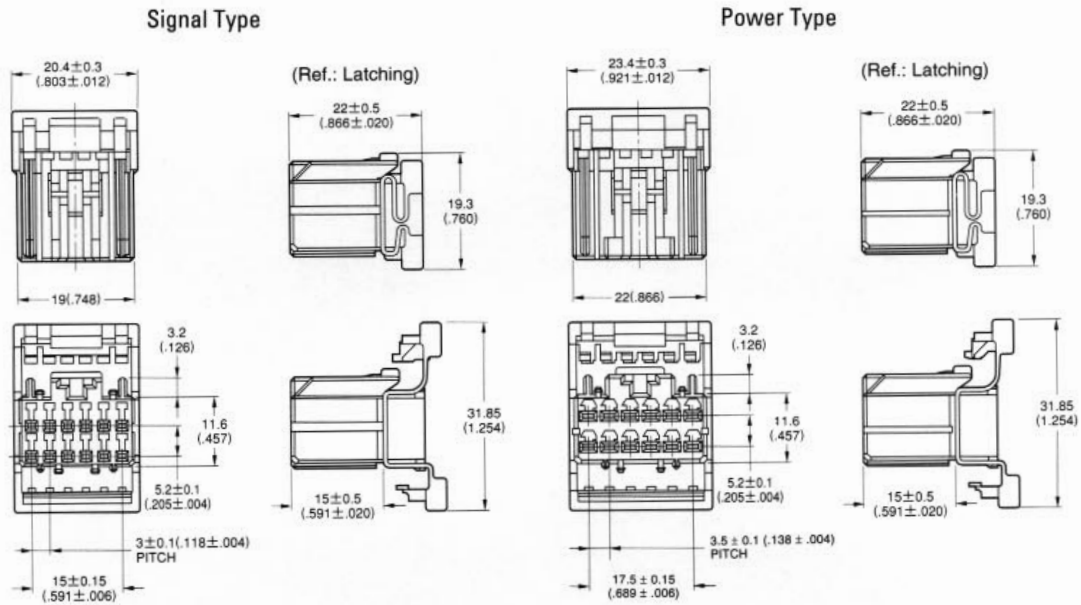
# MX5 SERIES AUTOMOTIVE CONNECTORS

## 040/070 Crimp Contacts, PCB-to-Cable Applications

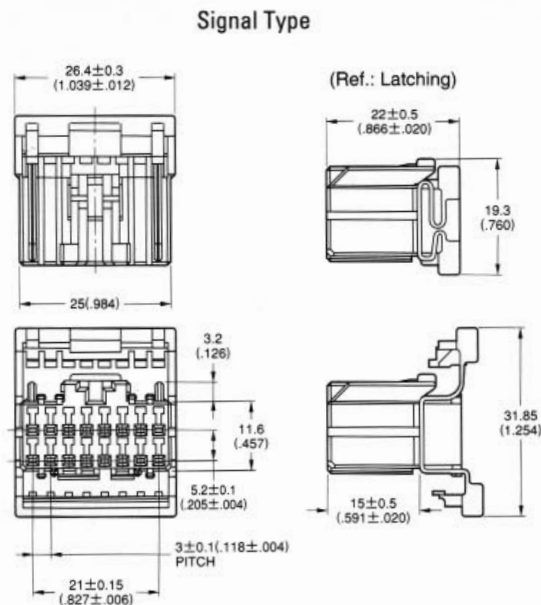
### SOCKET HOUSING

No. of Contacts	Part Number	Contact Position	
		Signal	Power
12	MX5-12S-C-G	12	—
12	MX5-12SA-C-G	—	12
16	MX5-16S-C-G	16	—

#### • 12 Contacts



#### • 16 Contacts



Dimensions in mm (inches).

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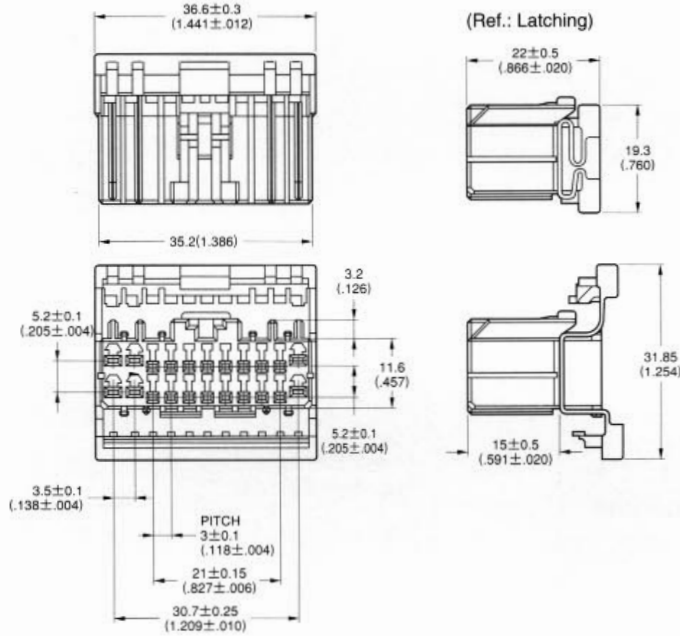
# MX5 SERIES AUTOMOTIVE CONNECTORS

## 040/070 Crimp Contacts, PCB-to-Cable Applications

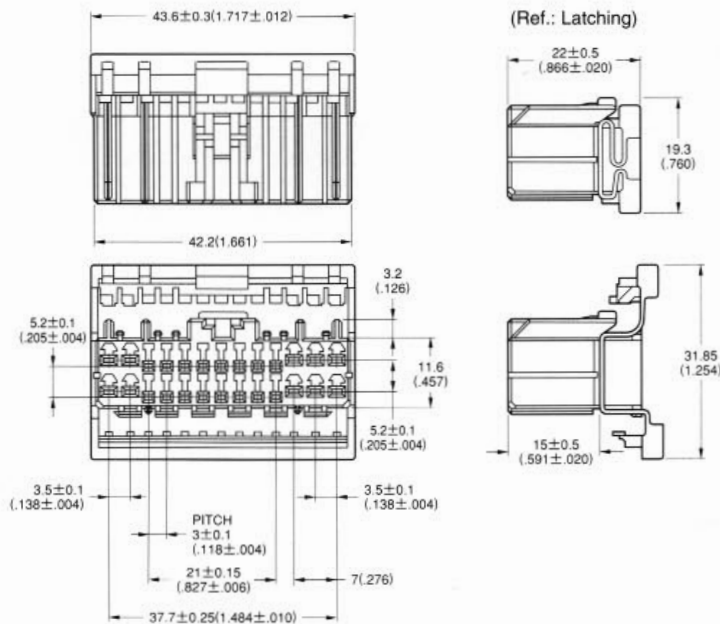
### SOCKET HOUSING

No. of Contacts	Part Number	Contact Position	
		Signal	Power
22	MX5-22S-C-G	16	6
26	MX5-26S-C-G	16	10

#### • 22 Contacts



#### • 26 Contacts



Dimensions in mm (inches).



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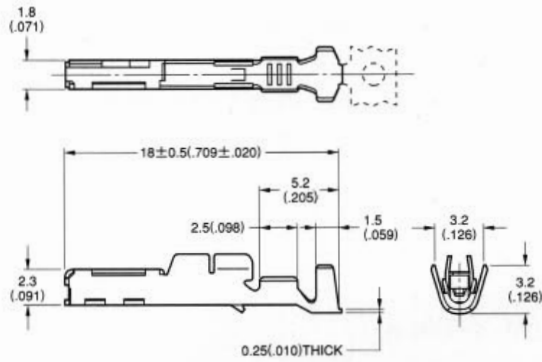
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# MX5 SERIES AUTOMOTIVE CONNECTORS

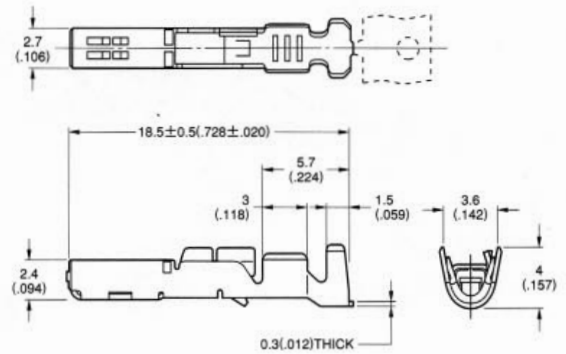
## 040/070 Crimp Contacts, PCB-to-Cable Applications

### SOCKET CONTACT (CRIMP TYPE)

#### • Signal Socket Contact (4 Amps)



#### • Power Socket Contact (8 Amps)



Type	Part Number (Note 1)	Finish (Note 2)	Applicable Wire (Stranded)			Applicable Tool		
			Type	AWG No.	Conductor Cross Section Area	Insulation Outer Dia.	Hand Crimp	Semi-Auto CT350-2 Type
Signal	MX5-SG-C1-5000	a	AVX	#20 to #18	0.5 to 0.85mm <sup>2</sup>	1.2 to 2.2mm (.047 to .087")	—	Applicator: 350-MX52-2 Press: CP210-1B
	MX5-B-SG-C2-5000	a	AVS	#24 to #20	0.2 to 0.5mm <sup>2</sup>		CT160-3-MX52	
	MX5-B-SG-C2-1-5000	b	AVSS					
Power	MX5-PW-C0-4000	a	AVS, AVX	#16	1.25mm <sup>2</sup>	2.2 to 2.9mm (.087 to .114")	—	Note 3
			AVSS	#16, #14	1.25 to 2mm <sup>2</sup>			
	MX5-B-PW-C1-4000	a	AVS AVSS	#20 to #16	0.5 to 1.25mm <sup>2</sup>	1.6 to 2.6mm (.063 to .102")	CT160-3-MX51	Applicator: 350-MX51-2 Press: CP210-1B
	MX5-B-PW-C1-1-4000	b						
MX5-B-PW-C2-4000	a	AVX	#22 to #20	0.3 to 0.5mm <sup>2</sup>	1.4 to 2.2mm (.055 to .087")	—	Note 3	

Note 1: The figures following the Part No. (-4000, -5000) indicate the number of contacts per magazine assembly reel.

Note 2: Contact finishes/a-Tin Plating, b-Gold (connecting area) with Solder (SnPb, terminal area) plating over Nickel.

Note 3: Applicator for automatic crimp tool available. Please consult JAE.

#### • Tooling: (Please consult JAE for details.)

Semi-Automatic Crimping Machine: CT350-2

Hand Crimping Tool: CT160-3

Contact Extraction Tool: ET-MX5

Dimensions in mm (inches).