

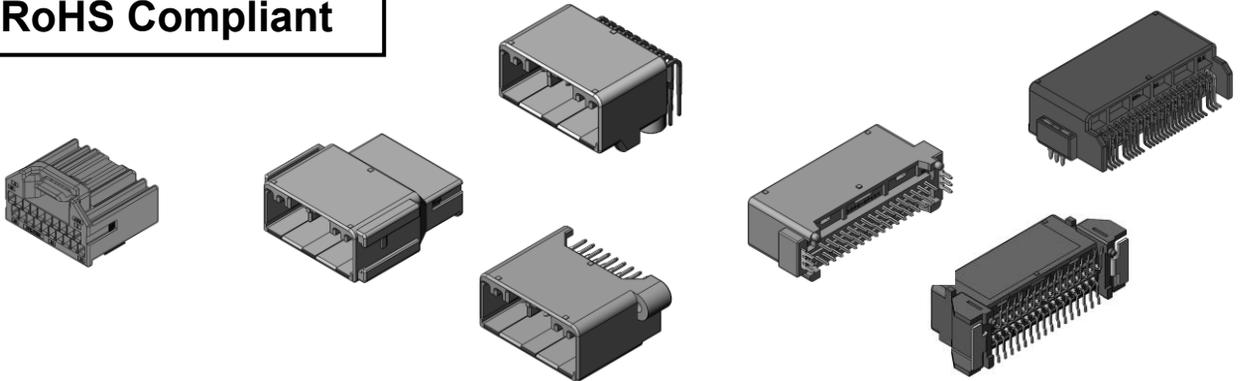
Compact Automotive Connector with 0.64mm Size Terminal CONNECTOR

MX34 Series

MB-0360-4

Oct.2025

RoHS Compliant



The MX34 series is a non-waterproof connector with a 0.64 mm terminal size that meets various requirements for automotive applications and has been adopted for many automotive ECU applications. Since its initial launch, the lineup for the MX34 Series has been expanded with a wide variety of options.

Application

General purpose automotive electrical control units (ECU), battery system components for electric vehicles (EV), and Battery Management System applications (BMS)

Features

- Non-waterproof connector with 0.64mm size terminals
- Durable socket terminal that uses a 2-layer spring structure for contact area
- Retainer that detects incomplete insertion of terminals during harness work
- Bridge structure on the lock spring supports external load
- Variations for pin side is available for inline connection, and flow DIP or through-hole reflow or SMT mounting type for vertical and horizontal connection to board
- USCAR2 tested

General Specifications

Number of Contacts	3~40 positions (please refer to next page for details)	Rated Current	3A
Contact Resistance	5mΩ max. (initial)	Insulation Resistance	100MΩ min.
	10mΩ max. (posttest)	Mating Cycles	50 times
Dielectric Withstanding Voltage	AC 1000V r.m.s. (for 1 minute)	Operating Temperature	-40 deg. C to +85 deg. C

Ordering Information

MX34 0 03 S F *(~)

Series

Connector Type

0: Standard

E: 8 position in different array

Q: Pin Header Straight Through-hole Reflow Type

R: Pin Header Angle & Straight SMT Type

TG: Pin Header Angle Through-hole Reflow Type

Number of Contacts:

03 ~ 40 positions

Modification Code* :

Please refer to Page 5 onwards for further details

Plating Specification F: Sn plating

Connection Type

Cable connection

S: Socket side, **P:** Pin side

Board connection (for pin side only)

Angle) N: Flow DIP & Through-hole Reflow, **H:** SMT

Straight) U: Flow DIP, **AT or BT:** Through-hole Reflow, **V:** SMT

Product List and Mating Combinations 1/2

Number of Contacts	Socket Side		Pin Side			
	Cable connection		Cable connection	Board connection - Angle Type		
				Flow DIP	Through-hole Reflow	SMT
3	MX34003SF1	⇔		MX34003NF1		MX34R03HF4T
				MX34003NF3		
5	MX34005SF1	⇔		MX34005NF1		MX34R05HF4T
				MX34005NF3		MX34R05HF4R150
7	MX34007SF1	⇔	(Note 1)	MX34007NF1		MX34R07HF4T
	MX34007SF4	⇔		MX34R07HF4R150		
8	MX34008SF4	⇔			MX34TG08NF2	MX34R08HF4T
	MX34E08SF1	⇔				MX34E08NF1
				MX34E08NF3		
12	MX34012SF1	⇔	MX34012PF1	MX34012NF1	MX34TG12NF1	MX34R12HF4T
	MX34012SF4	⇔		MX34012NF3		
				MX34012NF4	MX34TG12NF2	MX34R12HF8T
16	MX34016SF1	⇔	MX34016PF1	MX34016NF1	MX34TG16NF1	MX34R16HF4T
	MX34016SF4	⇔		MX34016NF3		MX34R16HF4R110
					MX34TG16NF2	
20	MX34020SF1	⇔	MX34020PF1	MX34020NF1		MX34R20HF4T
				MX34020NF3		
24	MX34024SF1	⇔	(Note 1)	MX34024NF1	MX34TG24NF1	MX34R24HF4T
	MX34024SF4	⇔		MX34024NF3		
				MX34024NF4		
28	MX34028SF1	⇔	(Note 1)	MX34028NF2	MX34TG28NF1	MX34R28HF4T
				MX34028NF3		
32	MX34032SF1	⇔		MX34032NF2	MX34TG32NF1	MX34R32HF4T
				MX34032NF3		
				MX34032NF4		
	MX34032SF4	⇔		MX34032NF4		MX34R32HF8T
	MX34032SF5	⇔		MX34032NF5		MX34R32HFDT
36	MX34036SF1	⇔		MX34036NF2	MX34TG36NF1	MX34R36HF4T
				MX34036NF3		MX34R36HF4R110
40	MX34040SF1	⇔		MX34040NF2		
				MX34040NF3		

Note 1) Please use MX84 series cables, for 7, 24, and 28 cable connection including the socket side. (For MX84 series, please refer to reference number MB-0330-*.)

Product List and Mating Combinations 2/2

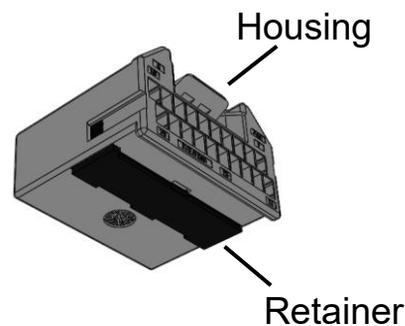
Number of Contacts	Socket Side		Pin Side		
	Cable connection		Board connection - Straight Type		
			Flow DIP	Through-hole Reflow	SMT
3	MX34003SF1	⇔			
5	MX34005SF1	⇔	MX34005UF1		
7	MX34007SF1	⇔	MX34007UF1		
	MX34007SF4	⇔	MX34007UF4		
8	MX34008SF4	⇔			
	MX34E08SF1	⇔			
12	MX34012SF1	⇔	MX34012UF1		MX34R12VF1
			MX34012UF3		
	MX34012SF4	⇔	MX34012UF4		
16	MX34016SF1	⇔	MX34016UF1		
			MX34016UF3		
20	MX34020SF1	⇔	MX34020UF1	MX34Q20ATF8T40	MX34R20VF1
			MX34020UF3		
24	MX34024SF1	⇔	MX34024UF1		
			MX34024UF3		
28	MX34028SF1	⇔	MX34028UF2		
			MX34028UF3		
32	MX34032SF1	⇔	MX34032UF2	MX34Q32BTF1	MX34R32VF1
			MX34032UF3	MX34Q32BTF1T30	
		MX34Q32BTF1R200			
	MX34032SF4	⇔	MX34Q32BTF2-1T30		
36	MX34036SF1	⇔	MX34036UF2		
			MX34036UF3		
40	MX34040SF1	⇔	MX34040UF2		
			MX34040UF3		

Note 1) Please use MX84 series cables, for 7, 24, and 28 cable connection including the socket side. (For MX84 series, please refer to reference number MB-0330-*.)

Materials and Finishes

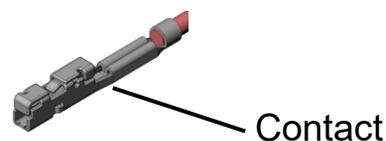
Socket Housing (Cable connection)

Component	Material
Housing	PPE + PA66 (ALLOY)
Retainer	PPE + PA66 (ALLOY)



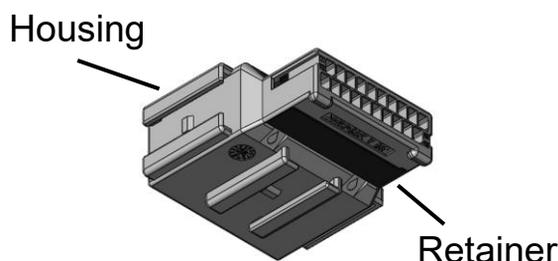
Socket Contact (Cable connection)

Component	Material / Finish
Contact	Highly Conductive Copper Alloy / Sn plating



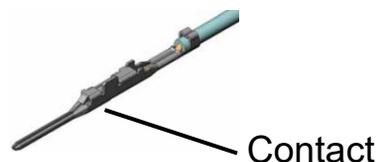
Pin Housing (Cable connection)

Component	Material / Finish
Housing	PPE + PA66(ALLOY)
Retainer	PPE + PA66(ALLOY)



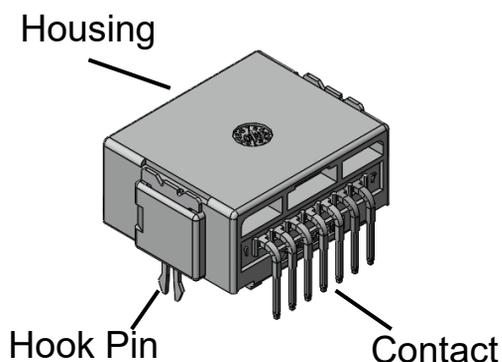
Pin Contact (Cable connection)

Component	Material / Finish
Contact	Highly Conductive Copper Alloy / Sn plating



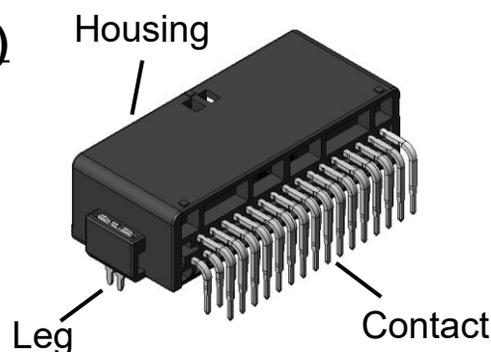
Angle Pin Header (Flow DIP)

Component	Material / Finish
Housing	SPS GF 30
Contact	Brass/ Sn plating
Hook Pin <small>*With screw hole, not available for pin count larger than 12 position</small>	Copper Alloy / Sn plating



Angle Pin Header (Through-hole Reflow)

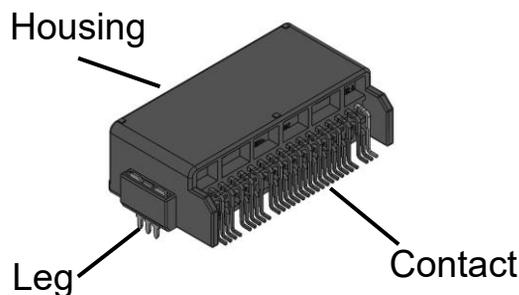
Component	Material / Finish
Housing	SPS GF 30
Contact	Brass/ Sn plating
Leg	Brass/ Sn plating



Materials and Finishes

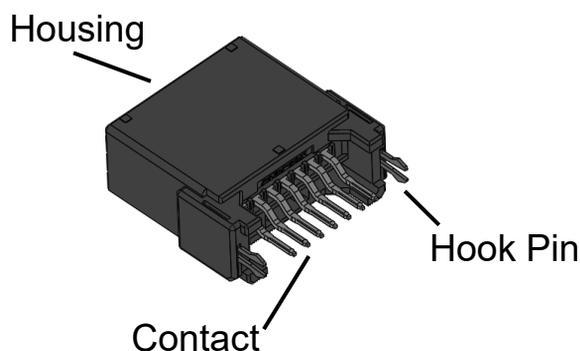
Angle Pin Header (SMT)

Component	Material / Finish
Housing	PPS GF 40
Contact	Copper Alloy / Sn plating
Leg	Brass/ Sn plating



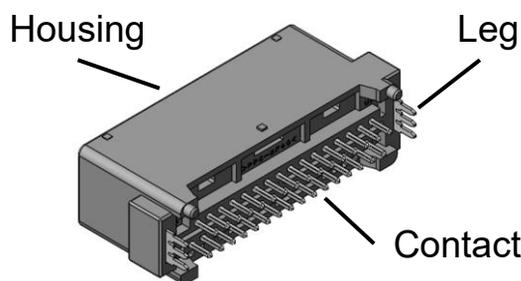
Straight Pin Header (Flow DIP)

Components	Material / Finish
Housing	SPS GF 30
Contact	Brass / Sn plating
Hook Pin <small>*With screw hole, not available for pin count larger than 12 position</small>	Copper alloy / Sn plating



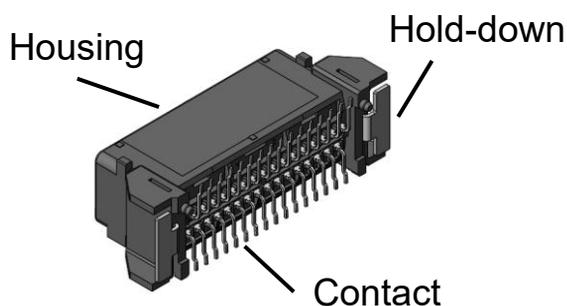
Straight Pin Header (Through-hole Reflow)

Components	Material / Finish
Housing	PPS GF 40
Contact	Copper alloy / Sn plating
Leg <small>*Not available for 20 position</small>	Brass / Sn plating



Straight Pin Header (SMT)

Components	Material / Finish
Housing	PPS GF 40
Contact	Copper alloy / Sn plating
Hold-down	Brass / Sn plating



Drawing Number

■ Socket Housing / Pin Housing (Cable connection type)

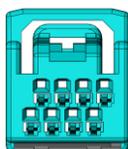
Num ber of Con tacts	Socket Housing			Pin Housing	
	Part Number	Drawing		Part Number	Drawing
3	MX34003SF1	SJ100823	⇔		
5	MX34005SF1	SJ100825	⇔		
7	MX34007SF1	SJ104416	⇔	(Note 1)	
	MX34007SF4 (Note 3)	SJ109859	⇔		
8	MX34008SF4	SJ109127	⇔		
	MX34E08SF1 (Note 2)	SJ106203	⇔		
12	MX34012SF1	SJ100717	⇔	MX34012PF1	SJ111563
	MX34012SF4 (Note 3)	SJ108275	⇔		
16	MX34016SF1	SJ038754	⇔	MX34016PF1	SJ112590
	MX34016SF4 (Note 3)	SJ122306	⇔		
20	MX34020SF1	SJ038752	⇔	MX34020PF1	SJ104399
24	MX34024SF1	SJ100271	⇔	(Note 1)	
	MX34024SF4 (Note 3)	SJ107990	⇔		
28	MX34028SF1	SJ038623	⇔	(Note 1)	
32	MX34032SF1	SJ038756	⇔		
	MX34032SF4 (Note 3)	SJ114408	⇔		
	MX34032SF5 (Note 3)	SJ114627	⇔		
36	MX34036SF1	SJ100270	⇔		
40	MX34040SF1	SJ038526	⇔		

Note 1) Please use MX84 series cables, for 7, 24, and 28 cable connection including the socket side. (For MX84 series, please refer to reference number MB-0330-*).

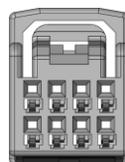
Note 2) Basically, for the mating combination of socket side and pin side the insulators should be of the same or similar color.

However, for MX34E08~ socket side is light blue and the pin side is black. In addition, the contact arrangement of the mating part of the MX34E08~ is different from that of the MX34008~. (See the figure below)

<MX34008SF4>
(Standard type)



<MX34E08SF1>



Note 3) This product is different key mating type.

Drawing Number

■ Socket Contact (For cable connection type)

Part Number	Drawing	Applicable Cable
M34S75C4F1	SJ038527	AVSS 0.3mm ² , CHFUS 0.22~0.35mm ² FLRY-A 0.22mm ² , FLRY-B 0.35mm ² FLUY 0.35mm ²
M34S75C4F2	SJ038528	AVSS 0.5mm ² , CHFUS 0.5~0.75mm ² CAVS 0.5mm ² , CHFS 0.75mm ² FLRY-B 0.5~0.75mm ²
M34S75C4F3 (Note 4)	SJ038747	CAN SD 0.35mm ²
M34S75C4F4 (Note 4)	SJ038893	AVSS 0.85mm ² ,CAVS 0.85mm ²
M34S75C4F5	SJ109336	CHFUS 0.13mm ² , M6158 0.13mm ²

Note 4) M34S75C4F3 / 4 can only be inserted into the two housing cavity positions at the both ends of the connector.

(8 position type MX34E08SF1 can be inserted in all locations.)

• Handling Instruction for Crimp tool for Socket Contact is as below.

Applicable Contact	Hand Crimp Tool	Semi-automatic Applicator	Automatic Applicator
M34S75C4F1	CT150-2-MX34 (T700261)	3502-MX34D-2 (T703418)	3502-MX34D-3B (T703501)
M34S75C4F2	CT150-2B-MX34 (T700261)		
M34S75C4F5	—		
M34S75C4F3,4	CT150-2C-MX34 (T700392)	3502-MX34C-2 (Please contact us for details)	3502-MX34C-3B (Please contact us for details)

• Extraction tool for Socket Contact is "ET-MX34-1" (T711140).

■ Pin Contact (Cable connection type)

Part Number	Drawing	Applicable Cable (Note)
M34P75C4F1	SJ103146	AVSS 0.3mm ² , CHFUS 0.22~0.35mm ² FLRY-B 0.35mm ²
M34P75C4F2	SJ103147	AVSS 0.5mm ² , CHFUS 0.5~0.75mm ² CAVS 0.5mm ² , FLRY-B 0.5~0.75mm ²
M34P75C4F5	SJ109337	CHFUS 0.13mm ²

• Handling Instruction for Crimp tool for Pin Contact is a below.

Applicable Contact	Hand Crimp Tool	Semi-automatic Applicator	Automatic Applicator
M34P75C4F1	CT150-2-MX34 (T700261)	3502-MX34D-2 (T703418)	3502-MX34D-3B (T703501)
M34P75C4F2	CT150-2B-MX34 (T700261)		
M34P75C4F5	—		

• Extraction tool for Pin contact is "ET-MX34P-1" (T711154).

Drawing Number

■ Angle Pin Header

Number of Contacts	Socket Housing			Angle Pin Header (Flow DIP)		Angle Pin Header (Through-hole Reflow)		
	Part Number	Drawing		Part Number	Drawing	Part Number	Drawing	
3	MX34003SF1	Please Refer to Page 6	⇔	MX34003NF1	SJ100824			
				MX34003NF3 (Note 5)	SJ110997			
5	MX34005SF1		⇔	MX34005NF1	SJ100826			
				MX34005NF3 (Note 5)	SJ116927			
7	MX34007SF1		⇔	MX34007NF1	SJ104514			
8	MX34008SF4		⇔			MX34TG08NF2	SJ126629	
	MX34E08SF1		⇔	MX34E08NF1	SJ106197			
					MX34E08NF3 (Note 5)	SJ116929		
12	MX34012SF1		⇔	MX34012NF1	SJ100715	MX34TG12NF1	SJ126630	
	MX34012SF4			MX34012NF3 (Note 5)	SJ107602			
					MX34012NF4 (Note 3)	SJ118320	MX34TG12NF2 (Note 3)	SJ126631
16	MX34016SF1		⇔	MX34016NF1	SJ038753	MX34TG16NF1	SJ125118	
	MX34016SF4			MX34016NF3 (Note 5)	SJ107603			
							MX34TG16NF2 (Note 3)	SJ126633
20	MX34020SF1		⇔	MX34020NF1	SJ038751			
				MX34020NF3 (Note 5)	SJ107604			
24	MX34024SF1		⇔	MX34024NF1	SJ100269	MX34TG24NF1	SJ125119	
	MX34024SF4			MX34024NF3 (Note 5)	SJ107605			
					MX34024NF4 (Note 3)	SJ107989		
28	MX34028SF1	⇔	MX34028NF2	SJ106304	MX34TG28NF1	SJ125120		
			MX34028NF3 (Note 5)	SJ107606				
32	MX34032SF1	⇔	MX34032NF2	SJ106305	MX34TG32NF1	SJ125121		
	MX34032SF4		MX34032NF3 (Note 5)	SJ107607				
				MX34032NF4 (Note 3)	SJ114407			
				MX34032SF5	MX34032NF5 (Note 3)	SJ114626		
36	MX34036SF1	⇔	MX34036NF2	SJ106307	MX34TG36NF1	SJ125122		
			MX34036NF3 (Note 5)	SJ107608				
40	MX34040SF1	⇔	MX34040NF2	SJ106309				
			MX34040NF3 (Note 5)	SJ107609				

Number of Contacts	Socket Housing			Angle Pin Header (SMT)	
	Part Number	Drawing		Part Number	Drawing
3	MX34003SF1	Please refer to Page 6	⇔	MX34R03HF4T	SJ110327
5	MX34005SF1		⇔	MX34R05HF4T	SJ110328
				MX34R05HF4R150 (Note 6)	SJ118052
7	MX34007SF1		⇔	MX34R07HF4T	SJ110662
				MX34R07HF4R150 (Note 6)	SJ118053
8	MX34008SF4		⇔	MX34R08HF4T	SJ110338
12	MX34012SF1		⇔	MX34R12HF4T	SJ110663
	MX34012SF4		⇔	MX34R12HF8T (Note 3)	SJ114629
16	MX34016SF1		⇔	MX34R16HF4T	SJ110664
				MX34R16HF4R110 (Note 6)	SJ118054
20	MX34020SF1		⇔	MX34R20HF4T	SJ110665
24	MX34024SF1		⇔	MX34R24HF4T	SJ110666
28	MX34028SF1		⇔	MX34R28HF4T	SJ119976
32	MX34032SF1		⇔	MX34R32HF4T	SJ110668
	MX34032SF4		⇔	MX34R32HF8T (Note 3)	SJ114413
			⇔	MX34R32HFDT (Note 3)	SJ114628
36	MX34036SF1		⇔	MX34R36HF4T	SJ110669
				MX34R36HF4R110 (Note 6)	SJ118055

Note 3) This product is different key mating type.

Note 5) Contacts for part number (~F3) is post plated, (~F1 or ~F2) is pre plated.

The only difference between the two last digits of the part number is plating.

Note 6) Only the packaging (~T : tray, ~R : embossed) of these 2 items are different.

Drawing Number

■ Straight Pin Header

Number of Contacts	Socket Housing			Straight Pin Header (Flow DIP)		Straight Pin Header (Through-hole Reflow)	
	Part Number	Drawing		Part Number	Drawing	Part Number	Drawing
5	MX34005SF1	Please refer to Page 6	⇔	MX34005UF1	SJ104369		
7	MX34007SF1		⇔	MX34007UF1	SJ104370		
	MX34007SF4		⇔	MX34007UF4 (Note 3)	SJ109858		
12	MX34012SF1		⇔	MX34012UF1	SJ100716		
	MX34012SF4		⇔	MX34012UF3 (Note 5)	SJ107610		
16			MX34016SF1	⇔	MX34012UF4 (Note 3)	SJ108274	
	⇔			MX34016UF1	SJ038766		
20	MX34020SF1		⇔	MX34016UF3 (Note 5)	SJ107611		
			⇔	MX34020UF1	SJ038765	MX34Q20ATF8T40 (Note 7)	SJ121464-1
			⇔	MX34020UF3 (Note 5)	SJ107612		
24	MX34024SF1		⇔	MX34024UF1	SJ100221		
28	MX34028SF1		⇔	MX34024UF3 (Note 5)	SJ107613		
			⇔	MX34028UF2	SJ106312		
32	MX34032SF1		⇔	MX34028UF3 (Note 5)	SJ107614		
			⇔	MX34032UF2	SJ106313	MX34Q32BTF1 (Note 8)	SJ119062
36	MX34036SF1		⇔	MX34032UF3 (Note 5)	SJ107615	MX34Q32BTF1T30 (Note 8)	SJ121243
		⇔			MX34Q32BTF1R200 (Note 8)	SJ121453	
40	MX34040SF1	⇔			MX34Q32BTF2-1T30 (Note 3)	SJ121244	
		⇔	MX34036UF2	SJ106314			
		⇔	MX34036UF3 (Note 5)	SJ107616			
		⇔	MX34040UF2	SJ106315			
		⇔	MX34040UF3 (Note 5)	SJ107617			

Number of Contacts	Socket Housing			Straight Pin Header (SMT)	
	Part Number	Drawing		Part Number	Drawing
12	MX34012SF1	Please refer to Page 6	⇔	MX34R12VF1	SJ109156
20	MX34020SF1		⇔	MX34R20VF1	SJ106351
32	MX34032SF1		⇔	MX34R32VF1	SJ106352

Note 3) This product has different key mating type.

Note 5) Contacts for part number (~F3) is post plated, (~F1 or ~F2) is pre plated.

The only difference between the two last digits of the part number is plating.

Note 7) This product is fixed by the contact DIP area (without leg) only.

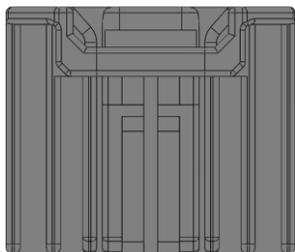
Please secure sufficient strength in the housing accordingly to the situation of usage before use .

Note 8) Only the packaging (stick, tray, embossed) of these 3 items are different.

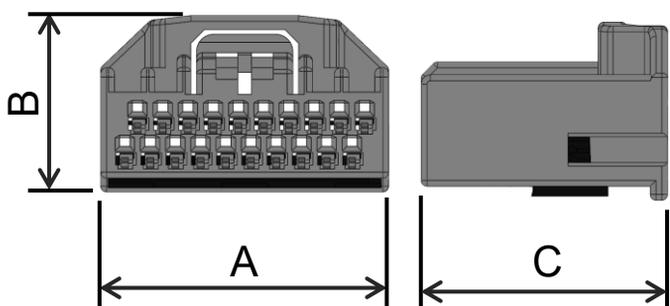
Outer Dimensions

■ Socket Housing

Unit: mm



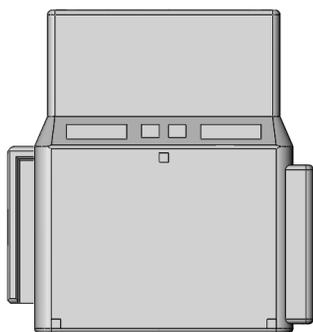
Note) Drawing of 20 position type



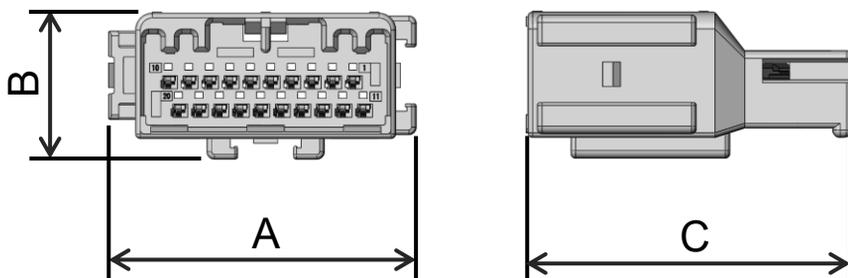
Number of Contacts		Dimension A	Dimension B	Dimension C
3		10.8	12.2	21.3
5		15.2		
7		19.6		
8	MX340	12.9	15.2	
	MX34E	11.7	15.7	
12		16.3	15.2	
16		20.7		
20		25.1		
24		29.5		
28		33.9		
32		38.3		
36		42.7		
40		47.1		

■ Pin Housing

Unit: mm



Number of Contacts	Dimension A	Dimension B	Dimension C
12	24.2	15.6	34.8
16	28.6		
20	33		

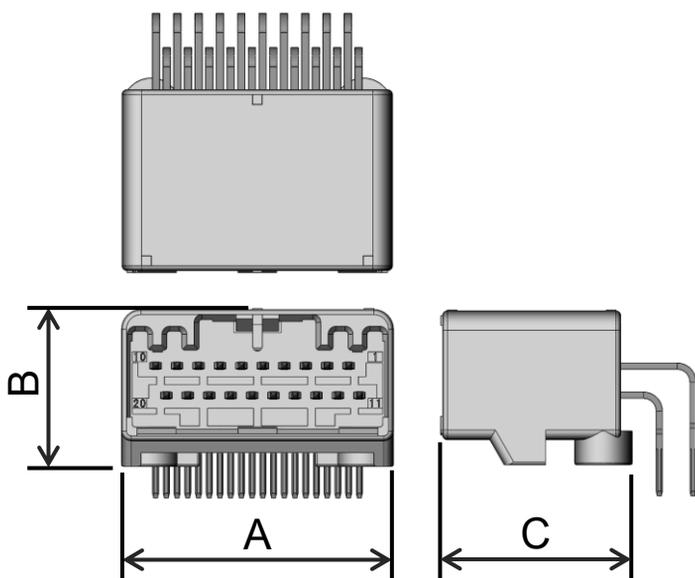


Note) Drawing of 20 position type

Outer Dimensions

■ Angle Pin Header (Flow DIP)

Unit: mm

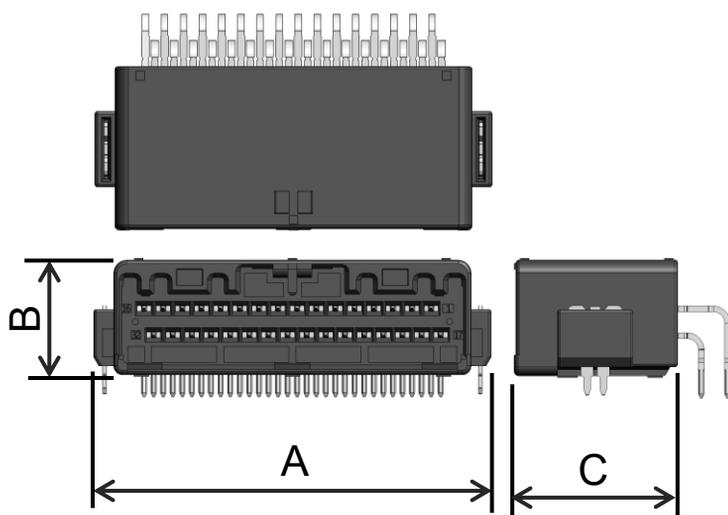


Note) Drawing of 20 position type

Number of Contacts	Dimension A	Dimension B	Dimension C
3	15.8	10.7	18.7
5	20.4		
7	24.8		
8 (MX34E)	18.1	14.2	18.1
12	19.1	16	19.9
16	23.5		
20	27.9		
24	32.3		
28	36.7		
32	41.1		
36	45.5		
40	49.9		

■ Angle Pin Header (Through-hole Reflow)

Unit: mm



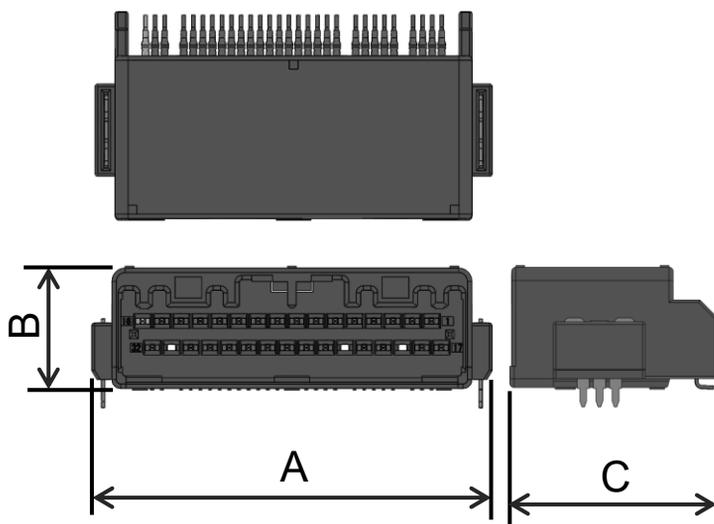
Note) Drawing of 32 position type

Number of Contacts	Dimension A	Dimension B	Dimension C
8	20.1	13.4	18.7
12	23.7		
16	28.1		
24	36.9		
28	41.3		
32	45.7		
36	50.1		

Outer Dimensions

■ Angle Pin Header (SMT)

Unit: mm

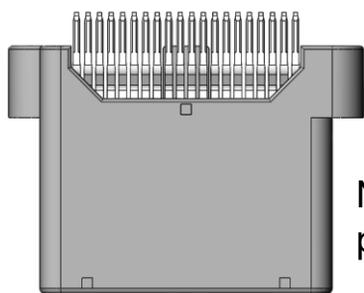


Note) Drawing of 32 position type

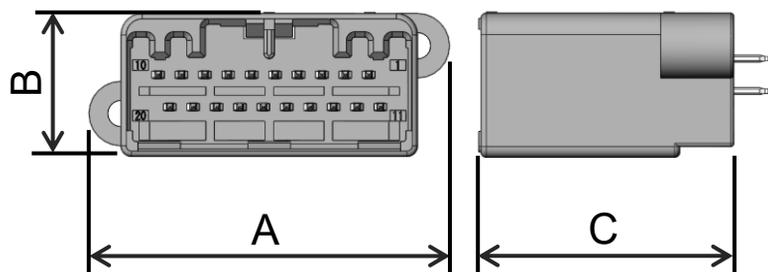
Number of Contacts	Dimension A	Dimension B	Dimension C
3	18	10.9	23.75
5	22.6		
7	27		
8	20.1	14	
12	23.7		
16	28.1		
20	32.5		
24	36.9		
28	41.3		
32	45.7		
36	50.1		

■ Straight Pin Header (Flow DIP)

Unit: mm



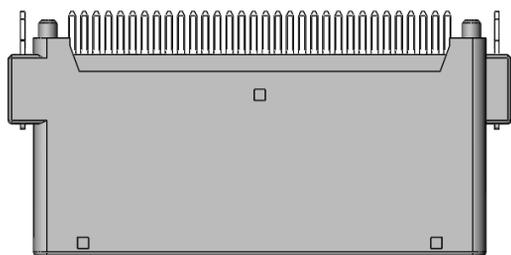
Note) Drawing of 20 position type



Number of Contacts	Dimension A	Dimension B	Dimension C
5	20.4	10.4	23.7
7	24.8		
12	25.1	13.4	
16	29.5		
20	33.9		
24	38.3		
28	42.7		
32	47.1		
36	51.5		
40	55.9		

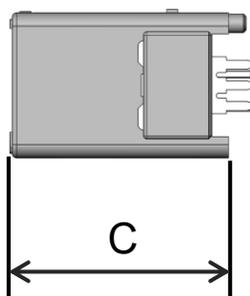
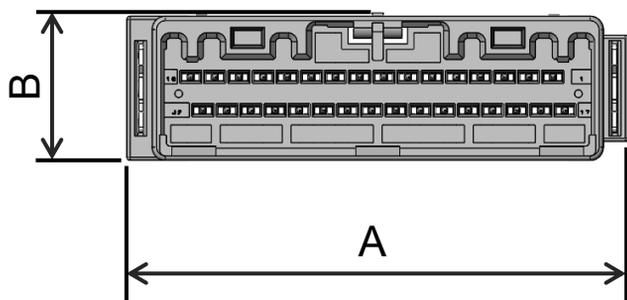
Outer Dimensions

■ Straight Pin Header (Through-hole Reflow)



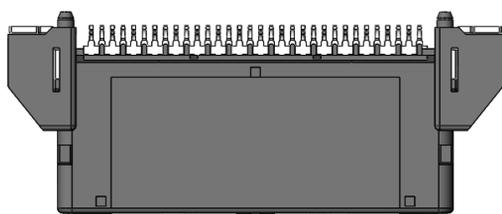
Unit: mm

Number of Contacts	Dimension A	Dimension B	Dimension C
20	32.5	13.3	19.8
32	45.7		



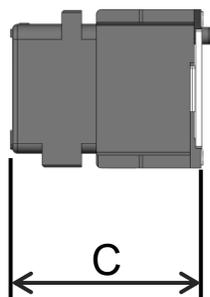
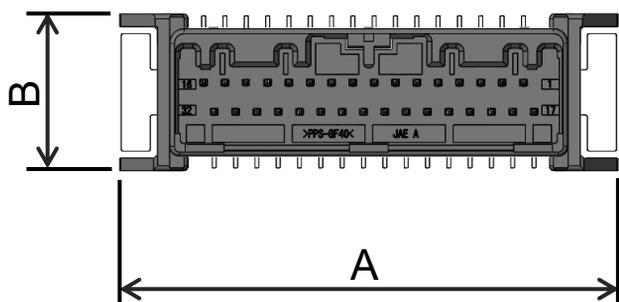
Note) Drawing of 32 position type

■ Straight Pin Header (SMT)



Unit: mm

Number of Contacts	Dimension A	Dimension B	Dimension C
12	29.4	16	19.5
20	38.2		
32	51.4		



Note) Drawing of 32 position type

Technical Documents

	Specifications	Handling Instructions
Pin Housing (Cable connection) (Note 9)	JACS-1754-4	JAHL-1754-1
Angle Pin Header Through-hole Reflow (MX34TG)	JACS-11384	JAHL-11384
Straight Pin Header Through-hole Reflow (MX34Q)	JACS-11192	JAHL-11192
Angle & Straight Pin Header SMT (MX34R)	JACS-1754-10	JAHL-1754
Others (Note 9)	JACS-1754	

Note 9) If you use European wires for crimp terminals , please refer to JAHL-1754-3.

Notice:

1. The specifications provided in this brochure are for reference purpose only. The products and their specifications are subject to change without notice. Please contact our sales representatives for further information before considering or placing an order. A formal product specification must be agreed upon prior to purchase.

2. Users are responsible for implementing appropriate protection and redundancy circuits to ensure safety of the equipment and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below.

We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:

Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.

(ii) We may provide separate support based on your specified quality assurance program, when you think of a use such as : Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

Japan Aviation Electronics Industry, Limited

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