



- ✓ Hybrid connector for discrete wire and FPC
- ✓ Smallest in class at 1.0 mm height
- ✓ Anti-reverse mating structure reduces operational error

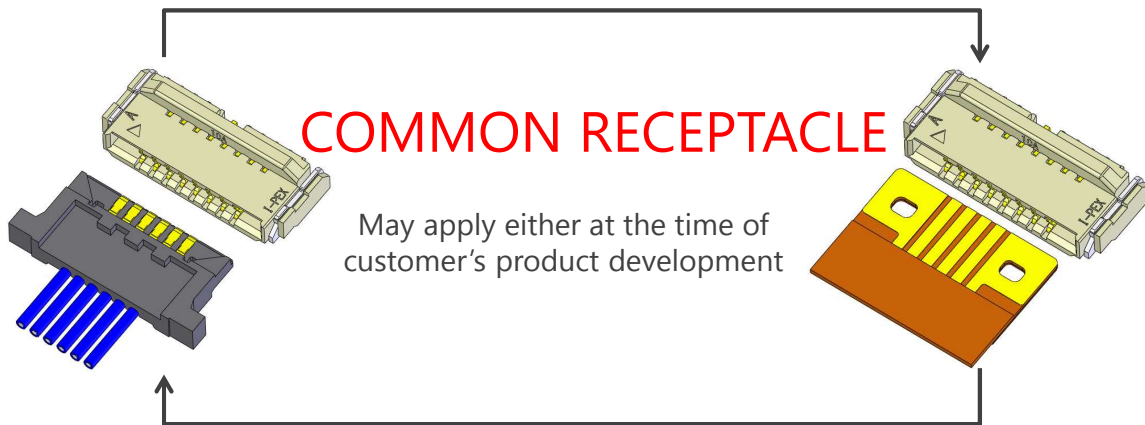
Pin counts:

Type	Plug	Receptacle
Range	Up to 20	Up to 20
Available	6, 8, 10	6, 8, 10

*Please inquire for pin counts not listed or outside of the pin count range.

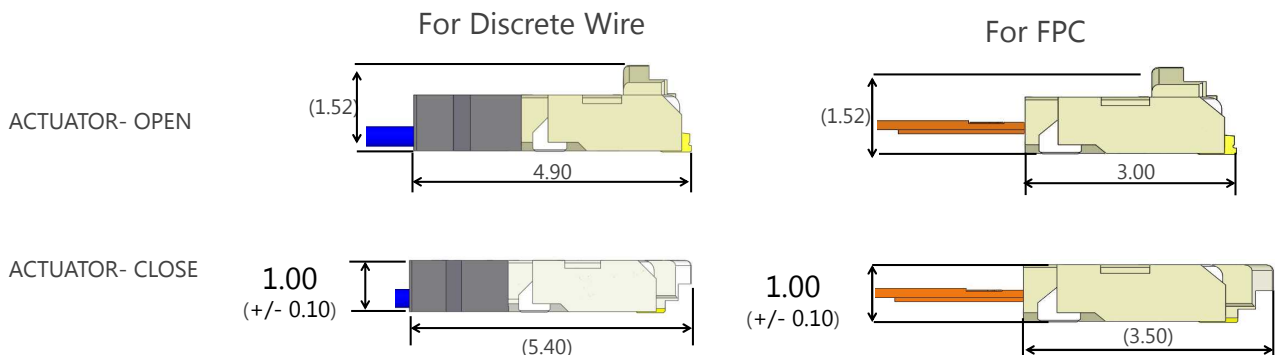
Part Number	Plug	Receptacle
	20598	20597
Contact Pitch (mm)	0.5	0.5
Board Pitch (mm)	0.5	0.5
Height (mm)	1.0 +/-0.1	1.0 +/-0.1
Width Formula (mm)	3.8+(0.5*?p)	3.7+(0.5*?p)
Depth (mm)	Actuator Open	4.90
	Actuator Close	5.39
Wiping Length (mm)	1.00	1.00
FPC Insertion Depth (mm)	1.30	1.30
FPC Thickness (mm)	0.2+/-0.03	0.2+/-0.03
Current Rating	0.7A /pin DW(AWG#34)	0.5A /pin
Contact Point	Top and Bottom	Top and Bottom
Compatibility	Original	Original

Hybrid Connector for Discrete Wire and FPC

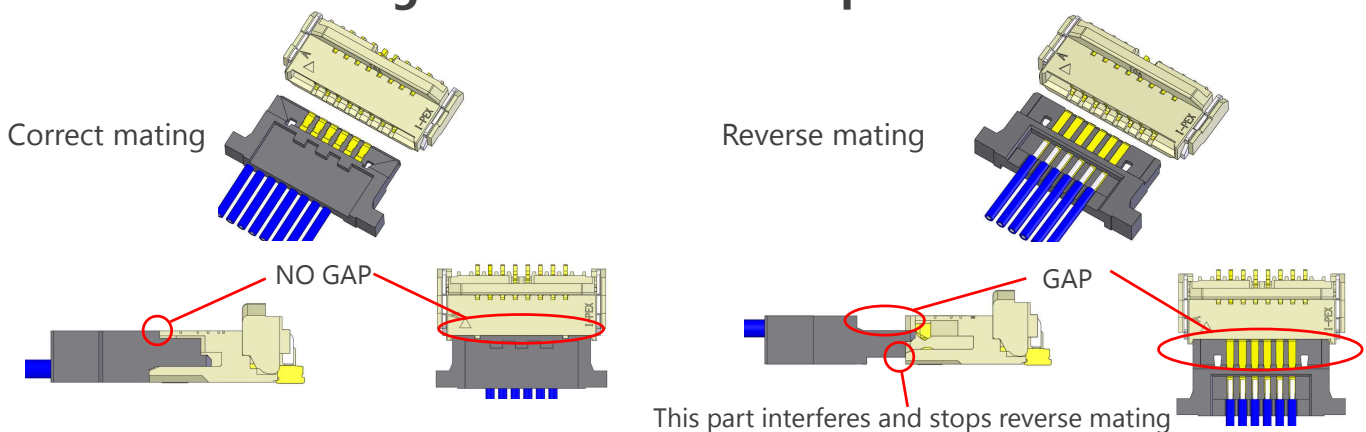


Smallest in class at 1.0 mm height

Very low height of 1.00 mm, world's smallest class 6p dimension



Anti-reverse mating structure reduces operational error



DW 5

Component Parts Detail

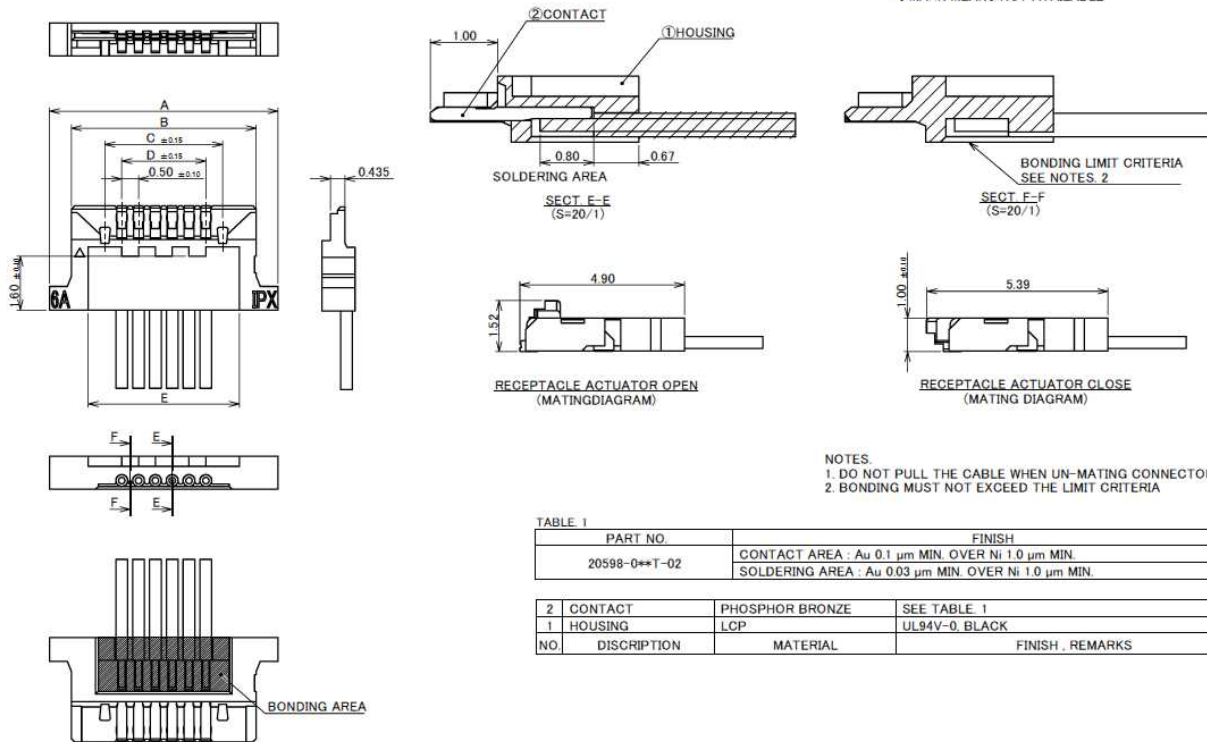
Plug Assembly :



CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HM-14010 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.
 ※DAI-ICHI SEIKO HP (<https://www.i-pex.com/ja/Products/detail/63>)

Recommended P/N		20598-0**T-02				
PART No.	POS.	A	B	C	D	E
20598-006T-02	6	6.80	5.50	3.50	2.50	4.50
20598-008T-02	8	7.80	6.50	4.50	3.50	5.50
20598-010T-02	10	8.80	7.50	5.50	4.50	6.50
◆20598-020T-02	20	13.80	12.50	10.50	9.50	11.50

◆MARK MEANS NOT AVAILABLE



NOTES.
 1. DO NOT PULL THE CABLE WHEN UN-MATING CONNECTORS
 2. BONDING MUST NOT EXCEED THE LIMIT CRITERIA

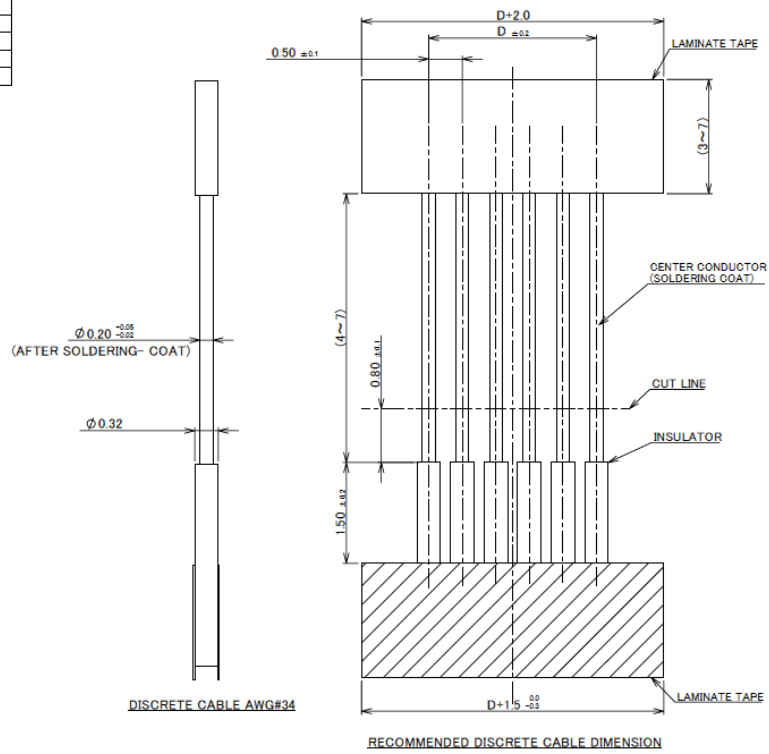
PART NO.	FINISH	
20598-0**T-02	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.	

NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK

Plug Assembly :

PART No.	POS.	D
20598-006T-02	6	2.50
20598-008T-02	8	3.50
20598-010T-02	10	4.50
◆20598-020T-02	20	9.50

◆MARK MEANS NOT AVAILABLE



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Plug Assembly :

ITEMS	SPECIFICATION
APPLICABLE CABLE	DISCRETE : AWG#34
RATING VOLTAGE	50V AC (PER A CONTACT)
RATING AMPERAGE	0.7A DC [AWG#34] (PER A CONTACT)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	80% MAX (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 40mohm MAX / AFTER TEST : \surd20mohm MAX
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN / AFTER TEST : 500Mohm MIN
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.6N (61gf) \times (n + 2)$ MAX
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.05N (5gf) \times (n + 2)$ MIN
PLUG RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : $0.15N (15gf) \times n + 2.0N$ MIN / AFTER TEST : $0.15N (15gf) \times n + 1.0N$ MIN
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-14006
INSTRUCTION MANUAL	HIM-14010
ASSEMBLY MANUAL	ASM-12002

※ "n" IS THE NUMBER OF PIN

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Receptacle Assembly :

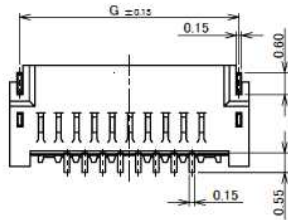
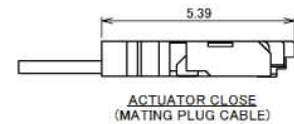
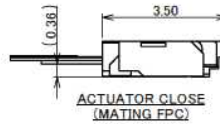
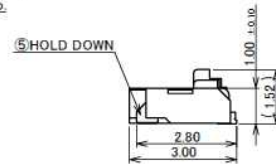
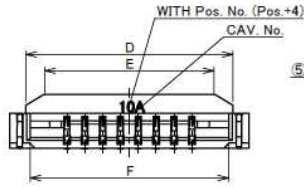
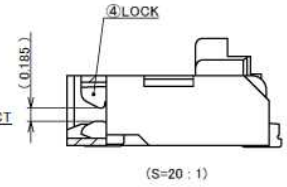
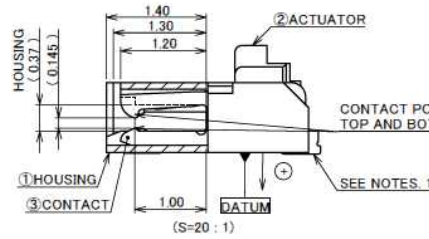
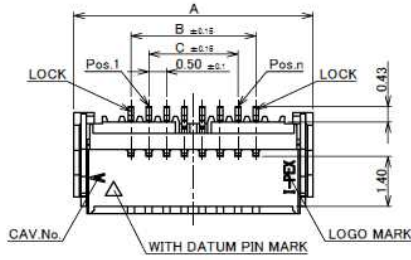
Recommended P/N | 20597-0**E-02



CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-14010 AND HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

PART No.	POS.	A	B	C	D	E	F	G
20597-006E-02	6	6.70	3.50	2.50	5.80	4.80	5.56	6.15
20597-008E-02	8	7.70	4.50	3.50	6.80	5.80	6.56	7.15
20597-010E-02	10	8.70	5.50	4.50	7.80	6.80	7.56	8.15
◆20597-020E-02	20	13.70	10.50	9.50	12.80	6.80	12.56	13.15

◆MARK MEANS NOT AVAILABLE

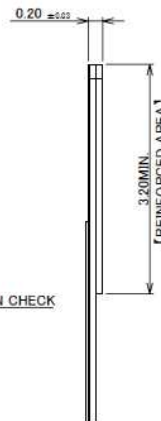
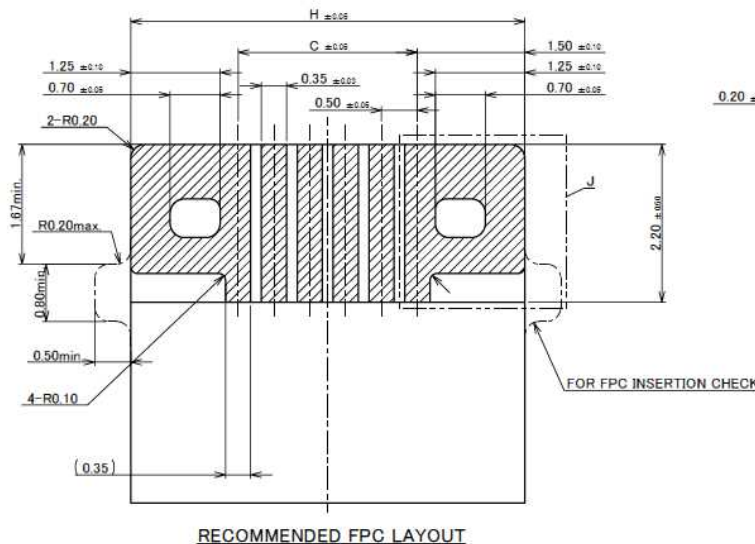


5	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 μm MIN OVER Ni 1.0 μm MIN
4	LOCK	PHOSPHOR BRONZE	Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

NOTES
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

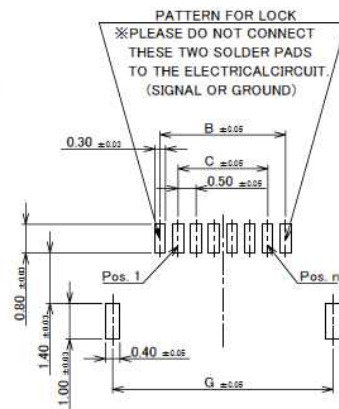
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Receptacle Assembly :

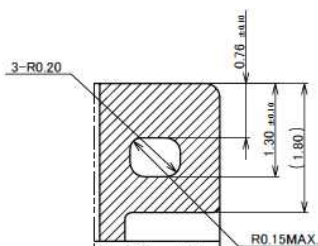


PART No.	POS.	B	C	G	H
20597-006E-02	6	3.50	2.50	6.15	5.50
20597-008E-02	8	4.50	3.50	7.15	6.50
20597-010E-02	10	5.50	4.50	8.15	7.50
◆20597-020E-02	20	10.50	9.50	13.15	12.50

◆MARK MEANS NOT AVAILABLE



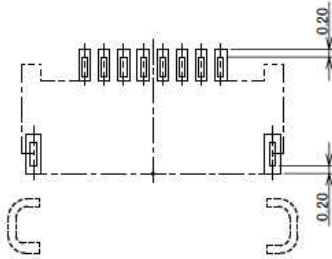
RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm



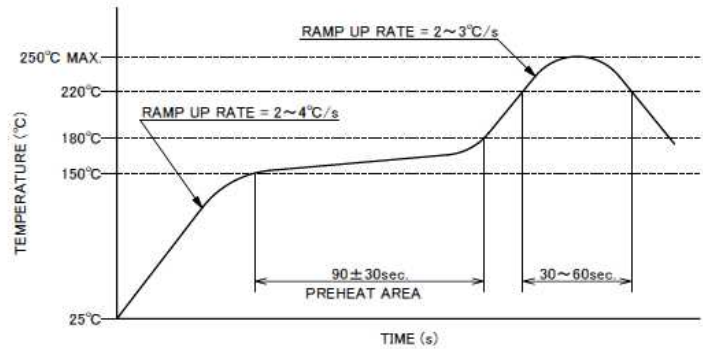
NOTES
2 MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE : THERMOSETTING ADHESIVE
3 FINISH
Au OVER Ni PLATING.

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Receptacle Assembly :



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

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Receptacle Assembly :

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.5A DC [FPC] (PER CONTACT) 0.7A DC [AWG#34] (PER CONTACT)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	80% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 40mohm MAX. / AFTER TEST : $\sphericalangle 20\text{mohm MAX.}$
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MAX. (PLUG CABLE) 100Mohm MIN. (FPC)
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.6\text{N}(61\text{gf}) \times (n + 2)$ MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.05\text{N}(5\text{gf}) \times (n + 2)$ MIN.
PLUG AND FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : $0.15\text{N}(15\text{gf}) \times n + 2.0\text{N}$ MIN. / AFTER TEST : $0.15\text{N}(15\text{gf}) \times n + 1.0\text{N}$ MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-13047
INSTRUCTION MANUAL	HIM-14010 (FOR MATING PLUG CABLE) HIM-12019 (FOR MATING FPC)
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

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