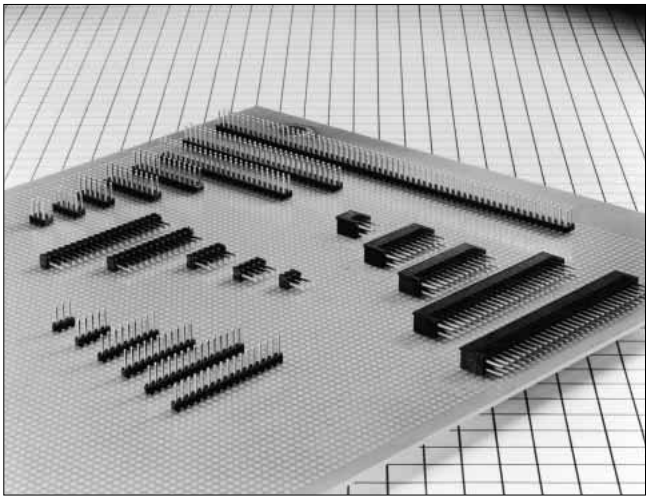
2.54mm Pitch High Density Connector

A1 and A2 Series



■Features

1. High Density Mounting

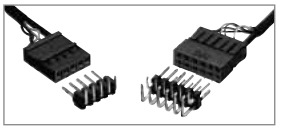
Connectors are aligned in the longitudinal direction on the 2.54 mm mesh board, so that no idle space can occur.

2. Variation in Number of Contacts

The A1 series contains 16 types of 6 to 64 contacts, while the A2 series contains 20 types of 1 to 20 contacts,

3. Compatibility

The A1 series is compatible with HIF3B series cable side and HIF3H receptacle for wide applications.



■Product Specifications

Rating	Current rating: 3A	Operating Temperature Range: -55 to +85℃ (Note 1)	Storage Temperature Range: -10 to +60℃ (Note 2)
	Voltage rating: 200V AC	Operating Moisture Range: 40 to 80%	Storage Humidity Range: 40 to 70% (Note 2)

Item	Specification	Condition
1. Insulation Resistance	1000M ohms min.	500V DC
2. Withstanding voltage	No flashover or insulation breakdown.	650V AC/1 minute
3. Contact Resistance	15m ohms max.	0.1A
4. Vibration	No electrical discontinuity of 1μs or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.
5.Humidity (Steady state)	Insulation resistance 1000M ohms min.	96 hours at temperature of 40℃ and humidity of 90% to 95%
6. Temperature Cycle	No damage, cracks, or parts looseness.	(-65℃: 30 minutes →15 to 35℃: 5 minutes max.→ 125℃: 30 minutes→ 15 to 35℃: 5 minutes max.) 5 cycles
7. Operating Life	Contact resistance: 15m ohms max.	500 cycles
8. Resistance to Soldering heat	No deformation of components affecting performance.	Solder bath: 260℃ for 10 seconds
		Manual soldering: 350℃ for 3 seconds

Note 1: Includes temperature rise caused by current flow.
Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.
Note 3: Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

■Applications

Computers, VTR, and other various kinds of electronic equipment

■Material

Part		Material	Finish	Remarks
Pin header	Insulator	PBT	Black	UL94V-0
	Contact	Brass	Contact area: gold plated DIP area : tin plated	————
Crimping socket		Polyamid	Black	UL94V-0
Crimping contact		Phosphor bronze	Contact area : gold plated Termination area: nickel plated	————

Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

In cases where the application will demand a high level of reliability, such as automotive, please contact a company representative for further information.

■ Ordering Information

● Pin Header

A 1 - 6 P A - 2.54 DS
❶ ❷ ❸ ❹ ❺ ❻ ❼

❶	Series Name: A
❷	Series No.:1 (double row) 2 (single row)
❸	Number of contacts: A1...6, 8, 10, 12, 14, 16, 20, 24, 26, 34, 40, 50, 60, 64 A2...1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
❹	P: Pin header
❺	A: Selective gold plated
❻	Contact pitch : 2.54mm
❼	Contact type: DS : Right angle type DSA : Straight type

● Crimping Socket

A 1 - 12 D - 2.54 C
❶ ❷ ❸ ❹ ❺ ❻

❶	Series Name : A
❷	Series No. : 1 (double row) 2 (single row)
❸	Number of contacts: A1 : 8, 10, 12 A2 : 5, 6
❹	Contact alignment : A1 : D (double row) A2 : S (single row)
❺	Contact pitch : 2.54mm
❻	Connection type: C : crimping

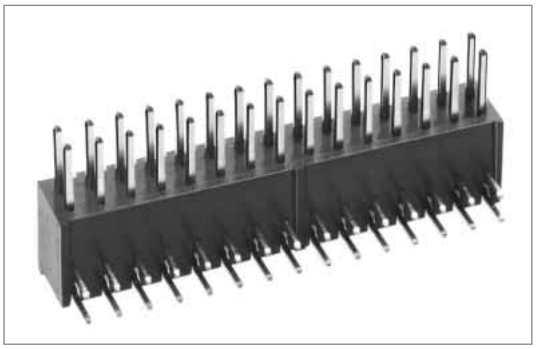
● Crimping Contact

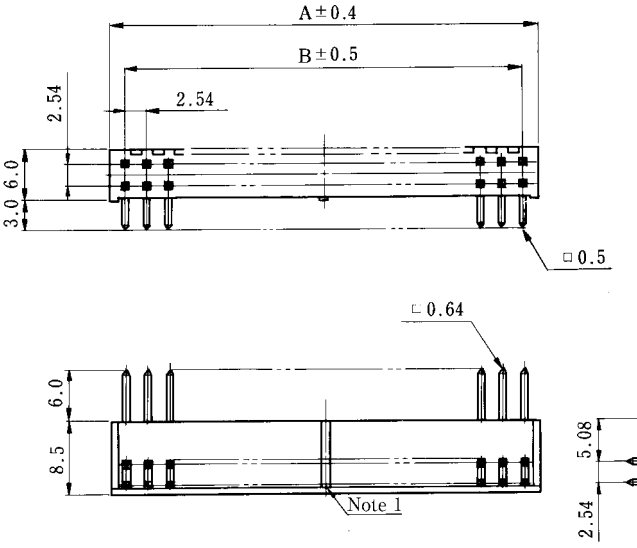
A 1 - 2630 - SCFC
❶ ❷ ❸ ❹

❶	Series Name : A
❷	Series No. : 1
❸	Applicable cable size 2226: AWG#22~ AWG#26 2630: AWG#26~ AWG#30
❹	Packaging type SCFC : Reel SCC : Bag

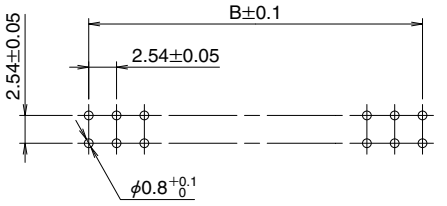
Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■ A1 (Double Row)- Right Angle Type





◆PCB mounting pattern



Unit: mm

Part Number	CL No.	Number of Contacts	A	B	RoHS
A1- 6PA-2.54DS(71)	619-0001-7-71	6	7.62	5.08	YES
A1- 8PA-2.54DS(71)	619-0016-4-71	8	10.16	7.62	
A1-10PA-2.54DS(71)	619-0002-0-71	10	12.70	10.16	
A1-12PA-2.54DS(71)	619-0003-2-71	12	15.24	12.70	
A1-14PA-2.54DS(71)	619-0004-5-71	14	17.78	15.24	
A1-16PA-2.54DS(71)	619-0005-8-71	16	20.32	17.78	
A1-18PA-2.54DS(71)	619-0006-0-71	18	22.86	20.32	
A1-20PA-2.54DS(71)	619-0007-3-71	20	25.40	22.86	

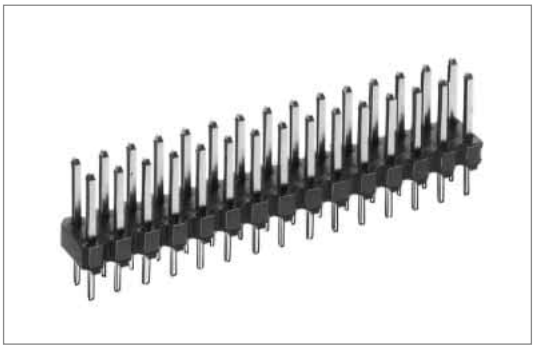
Unit: mm

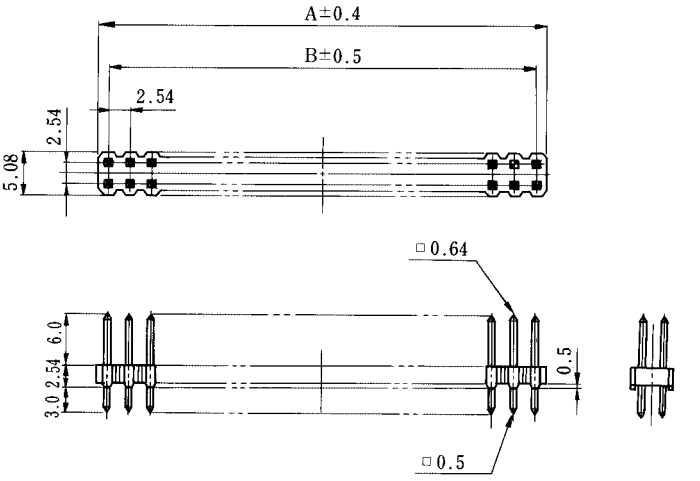
Part Number	CL No.	Number of Contacts	A	B	RoHS
A1-26PA-2.54DS(71)	619-0009-9-71	26	33.02	30.48	YES
A1-30PA-2.54DS(71)	619-0010-8-71	30	38.10	35.56	
A1-34PA-2.54DS(71)	619-0011-0-71	34	43.18	40.64	
A1-40PA-2.54DS(71)	619-0012-3-71	40	50.80	48.26	
A1-50PA-2.54DS(71)	619-0013-6-71	50	63.50	60.96	
A1-60PA-2.54DS(71)	619-0014-9-71	60	76.20	73.66	
A1-64PA-2.54DS(71)	619-0015-1-71	64	81.28	78.74	

Note: Right side and left side rib is added for 34pos, or more.

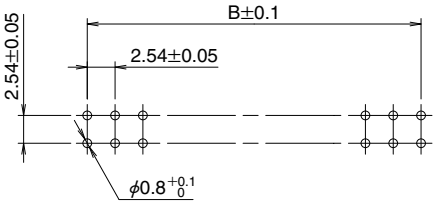
Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■ A1 (Double Row)- Straight Type





◆PCB mounting pattern

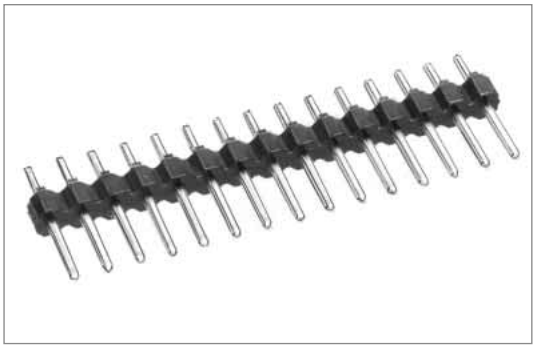


Unit: mm

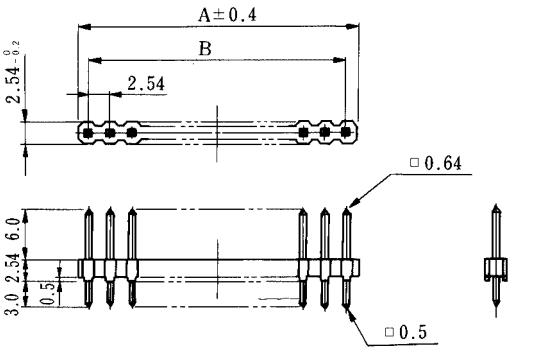
Part Number	CL No.	Number of Contacts	A	B	RoHS
A1- 6PA-2.54DSA(71)	619-0021-4-71	6	7.32	5.08	YES
A1- 8PA-2.54DSA(71)	619-0037-4-71	8	9.86	7.62	
A1-10PA-2.54DSA(71)	619-0022-7-71	10	12.40	10.16	
A1-12PA-2.54DSA(71)	619-0023-0-71	12	14.94	12.70	
A1-14PA-2.54DSA(71)	619-0024-2-71	14	17.48	15.24	
A1-16PA-2.54DSA(71)	619-0025-5-71	16	20.02	17.78	
A1-18PA-2.54DSA(71)	619-0026-8-71	18	22.56	20.32	
A1-20PA-2.54DSA(71)	619-0027-0-71	20	25.10	22.86	
A1-24PA-2.54DSA(71)	619-0028-3-71	24	30.18	27.94	
A1-26PA-2.54DSA(71)	619-0029-6-71	26	32.72	30.48	
A1-30PA-2.54DSA(71)	619-0030-5-71	30	37.80	35.56	
A1-34PA-2.54DSA(71)	619-0031-8-71	34	42.88	40.64	
A1-40PA-2.54DSA(71)	619-0032-0-71	40	50.50	48.26	
A1-50PA-2.54DSA(71)	619-0033-3-71	50	63.20	60.96	
A1-60PA-2.54DSA(71)	619-0034-6-71	60	75.9	73.66	
A1-64PA-2.54DSA(71)	619-0035-9-71	64	80.98	78.74	

Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

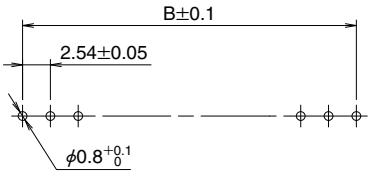
■ A2 (Single Row)-DIP Type



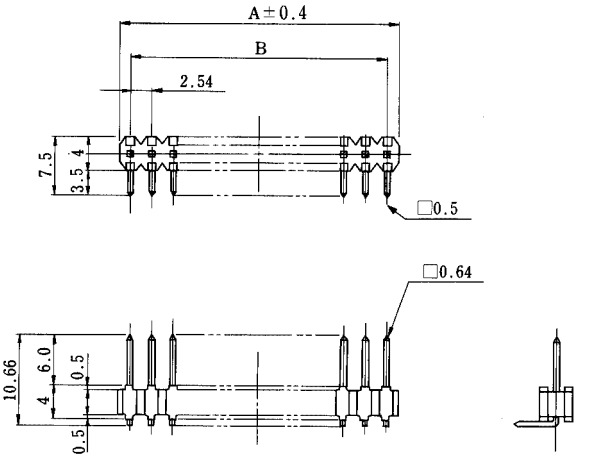
● Straight type



◆PCB mounting pattern



● Right angle type



● Straight type

Unit: mm

Part Number	CL No.	Number of Contacts	A	B	RoHS
A2- 1PA-2.54DSA(71)	620-0051-5-71	1	2.24	–	YES
A2- 2PA-2.54DSA(71)	620-0052-8-71	2	4.78	2.54	
A2- 3PA-2.54DSA(71)	620-0053-0-71	3	7.32	5.08	
A2- 4PA-2.54DSA(71)	620-0054-3-71	4	9.86	7.62	
A2- 5PA-2.54DSA(71)	620-0055-6-71	5	12.40	10.16	
A2- 6PA-2.54DSA(71)	620-0056-9-71	6	14.94	12.70	
A2- 7PA-2.54DSA(71)	620-0057-1-71	7	17.48	15.24	
A2- 8PA-2.54DSA(71)	620-0058-4-71	8	20.02	17.78	
A2- 9PA-2.54DSA(71)	620-0059-7-71	9	22.56	20.30	
A2-10PA-2.54DSA(71)	620-0060-6-71	10	25.10	22.86	
A2-11PA-2.54DSA(71)	620-0061-9-71	11	27.64	25.40	
A2-12PA-2.54DSA(71)	620-0062-1-71	12	30.18	27.94	
A2-13PA-2.54DSA(71)	620-0063-4-71	13	32.72	30.48	
A2-14PA-2.54DSA(71)	620-0064-7-71	14	35.26	33.02	
A2-15PA-2.54DSA(71)	620-0065-0-71	15	37.80	35.56	
A2-16PA-2.54DSA(71)	620-0066-2-71	16	40.34	38.10	
A2-17PA-2.54DSA(71)	620-0067-5-71	17	42.88	40.64	
A2-18PA-2.54DSA(71)	620-0068-8-71	18	45.42	43.18	
A2-19PA-2.54DSA(71)	620-0069-0-71	19	47.96	45.72	
A2-20PA-2.54DSA(71)	620-0070-0-71	20	50.50	48.26	

● Right angle type

Unit: mm

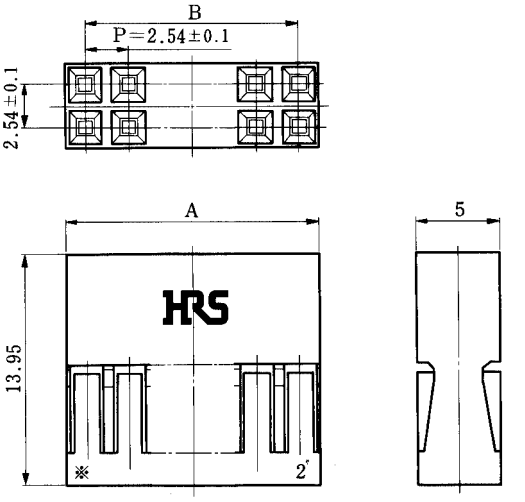
Part Number	CL No.	Number of Contacts	A	B	RoHS
A2- 1PA-2.54DS(71)	620-0001-7-71	1	2.24	–	YES
A2- 2PA-2.54DS(71)	620-0002-0-71	2	4.78	2.54	
A2- 3PA-2.54DS(71)	620-0003-2-71	3	7.32	5.08	
A2- 4PA-2.54DS(71)	620-0004-5-71	4	9.86	7.62	
A2- 5PA-2.54DS(71)	620-0005-8-71	5	12.40	10.16	
A2- 6PA-2.54DS(71)	620-0006-0-71	6	14.94	12.70	
A2- 7PA-2.54DS(71)	620-0007-3-71	7	17.48	15.24	
A2- 8PA-2.54DS(71)	620-0008-6-71	8	20.02	17.78	
A2- 9PA-2.54DS(71)	620-0009-9-71	9	22.56	20.30	
A2-10PA-2.54DS(71)	620-0010-8-71	10	25.10	22.86	
A2-11PA-2.54DS(71)	620-0011-0-71	11	27.64	25.40	
A2-12PA-2.54DS(71)	620-0012-3-71	12	30.18	27.94	
A2-13PA-2.54DS(71)	620-0013-6-71	13	32.72	30.48	
A2-14PA-2.54DS(71)	620-0014-9-71	14	35.26	33.02	
A2-15PA-2.54DS(71)	620-0015-1-71	15	37.80	35.56	
A2-16PA-2.54DS(71)	620-0016-4-71	16	40.34	38.10	
A2-17PA-2.54DS(71)	620-0017-7-71	17	42.88	40.64	
A2-18PA-2.54DS(71)	620-0018-0-71	18	45.42	43.18	
A2-19PA-2.54DS(71)	620-0019-2-71	19	47.96	45.72	
A2-20PA-2.54DS(71)	620-0020-1-71	20	50.50	48.26	

Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■ Crimping Socket

● Double Row Type

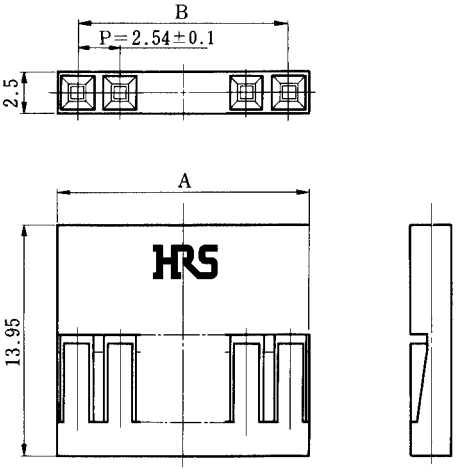
A1-∗D-2.54C



Part Number	CL No.	A	B	RoHS
A1- 8D-2.54C	619-0093-5	10.16	7.62	YES
A1-10D-2.54C	619-0091-0	12.70	10.16	
A1-12D-2.54C	619-0092-2	15.24	12.70	

● Single Row Type

A2-∗S-2.54C

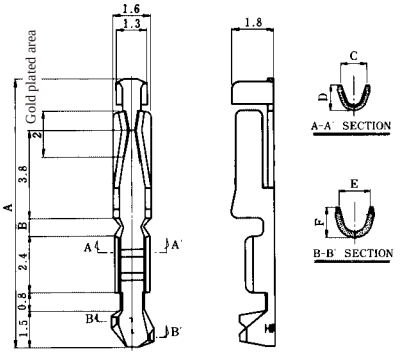


Part Number	CL No.	A	B	RoHS
A2-5S-2.54C	620-0101-1	12.70	10.16	YES
A2-6S-2.54C	620-0102-4	15.24	12.70	

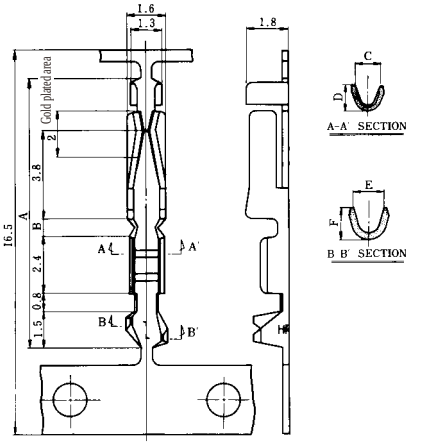
Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■ Crimping Contact

SCC contact



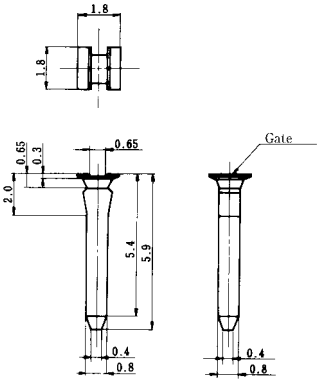
SCFC contact

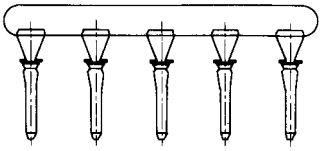


Part Number	CL No.	Applicable Cable	Packaging Type	Quantity	A	B	C	D	E	F	RoHS
A1-2226SCFC	619-0211-0	AWG#22 to #26	Reel	10,000	11.5	0.8	1.8	1.80	2.3	2.6	YES
A1-2226SCC	619-0214-8		Bag	100	11.5	0.8	1.8	1.80	2.3	2.6	
A1-2630SCFC	619-0212-2	AWG#26 to #30	Reel	10,000	11.5	0.8	1.4	1.35	2.0	2.1	
A1-2630SCC	619-0215-0		Bag	100	11.5	0.8	1.4	1.35	2.0	2.1	

■ Polarizing Key

HIF3-GPIN(A)





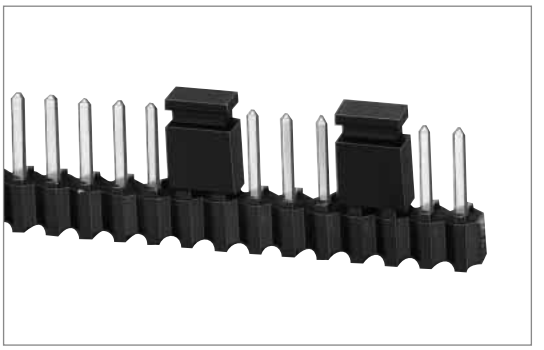
Part Number	CL No.	Material	Remarks	Packaging	RoHS
HIF3-GPIN(A)	562-0126-6	Poly acetal (white)	5 pieces set	4 sets	YES

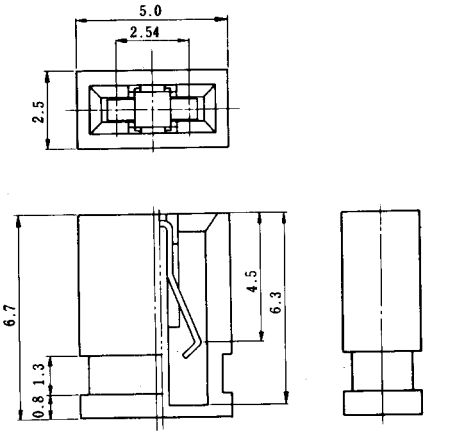
■ Crimping Tools

	Part Number	CL No.	Applicable Contact	Applicable Cable
Manual crimping tool	HIF3-TB2226HC	550-0154-1	A1-2226SCC	AWG#22 to #26
	HIF3-TB2630HC	550-0155-4	A1-2630SCC	AWG#26 to #30
Crimper unit	CM-105	901-0005-4	————	————
Applicator	AP105-A1-2226S	901-4008-4	A1-2226SCFC	————
	AP105-A1-2630S	901-4009-7	A1-2630SCFC	————

Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■ Short Pin





■ Performance

Item	Rating Value
Contact Resistance	30m ohms max. at 0.1A DC
Insulation Resistance	1000M ohms min. at 500V DC
Current rating	3A

Part Number	CL No.	RoHS
HIF3GA-2.54SP	562-0403-4	YES

Sep.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.