

General

The PCL Series of connectors have been developed as connectors for use in plug-in connection between information processing system units (HDD, etc) and Back Panel board.

The connector structure provides integrated assemblies of power and signal contacts, thereby not only meeting the requirements for high density mounting, but also simplifying circuit connections between the units and Back Panel board, enabling a large reduction in mounting costs.

In the PCL Series, a variety of connectors are available to deal with various types of equipment. For details, please refer to the catalogue.

Characteristic Features

- (1) Guiding, floating structures and sturdy structures have been adapted, taking account of the plug-in connections between the unit and the Back Panel board.
- (2) Power and signal contacts are respectively arranged using hot repair sequence stepped connections, for facility in mating and dismating of units under the power-on state. (For details concerning the sequence stepped dimensions, refer to the diagrams in this catalogue.)
- (3) For labor-savings in assembly, frequent use is made of compliant pin (press-fit) for the P.C.B side contacts and IDC connections on the cable side.
- (4) A wide variety of connectors have been developed, to ensure adaptability to various types of equipment.

PCL-A Type

PCL-A Type for cables type (male and female connector) and for Dip-solder type (female connector) are available, with 58 or 68 positions (of which 8 are for power). The signal contacts for cable are IDC type [28 AWG (7/0.127 mm) stranded, 1.27 mm pitch flat cable], while the power contacts are crimp type (14 ~ 18 AWG and 24 ~ 28 AWG, stranded).

● Characteristics

Rated current	Signal contact	1A
	Power contact	7A
Rated voltage	250 V AC (r.m.s)	
Dielectric withstanding voltage	750 V AC (r.m.s) for 1 minute	
Insulation resistance	More than 1,000 MΩ at 500 V DC	
Contact resistance	Signal contact	25 mΩ Max.
	Power contact	15 mΩ Max.
Operating temperature range	- 55°C ~ + 85°C	

● Materials and Plating

Insulator		PBT Resin (GF) UL94V-0		
Signal contact	Female	Dip-solder	Phosphor bronze	Contact area : Gold, Dip-solder terminal area: Tin, over Nikel plating
	Male	IDC type		Contact area: Gold, IDC terminal area: Tin, over Nikel plating
Power contact	Female	Dip-solder type contact	Phosphor bronze	Contact area: Gold, Dip-solder terminal area: Tin, over Nikel plating
		Crimp type contact		Copper alloy
	Male	Crimp type contact		

Contact Position No. of Sequence contacts (male side: long contact)
 Signal contacts (58 Positions) Pos. No. 1, 3, 5 ... (odd numbers)
 ... 45, 47, 49.
 Signal contacts (68 Positions) Pos. No. 1, 31, 59.
 Power contacts Pos. No. 1, 2, 5, 6.

● Part Number (How to order)

PCL-A 68 RF

Series designation
 Number of positions
 M : Male contact type for cable
 RM: Male contact type for cable, with strain relief

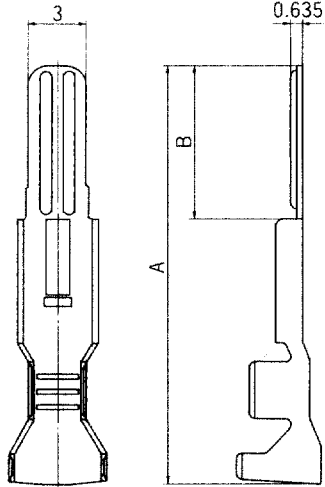
F : Female contact type for cable
 RF: Female contact type for cable, with strain relief
 FD: Female contact type for Dip-solder.

CRIMP TYPE CONTACTS (POWER CONTACTS)

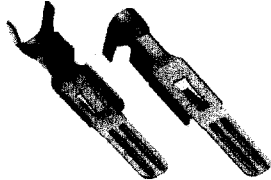
The Crimp type contacts mentioned below are to be used for the power contacts of cable connectors. With male contacts, a long contact is used at the sequence contact positions. The female contacts provided are common.

Contacts		Wire size	
		For 14 ~ 18 AWG	For 24 ~ 28 AWG
Female Individual contacts		PCL-A-F413	
Male Individual contacts	short type	PCL-A-M413	PCL-A-M313
	long type	PCL-A-M413A	PCL-A-M313A

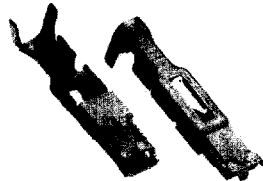
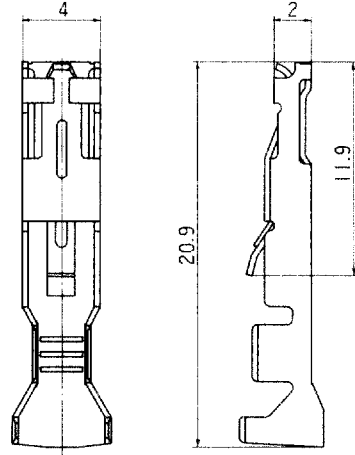
[Male contact]
PCL-A-M ()
M () A



Part No.	A	B	Note
PCL-A-M313	21.5	8	AWG # 24 ~ 28
PCL-A-M313A	22.7	9.2	
PCL-A-M413	21.9	8	AWG # 14 ~ 18
PCL-A-M413A	23.1	9.2	
PCL-A-M413B	20.7	6.8	



[Female contact]
PCL-A-F ()



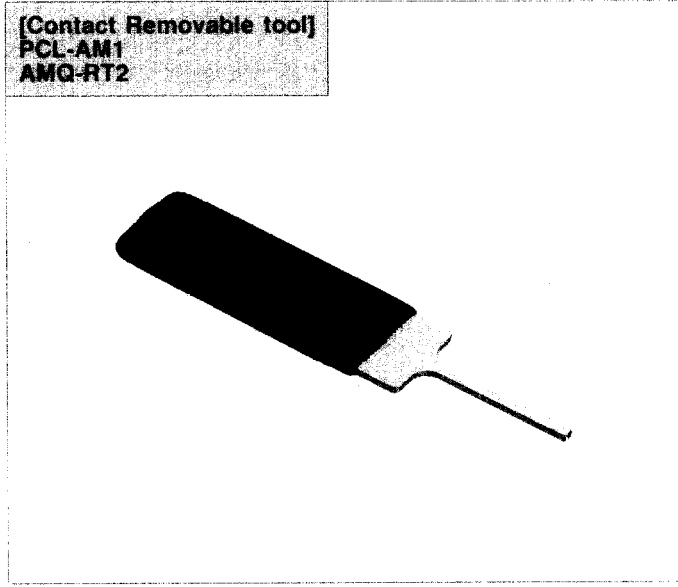
CRIMPING TOOLS

- When crimping wire onto a crimp type contact, a manually operated crimping tool is required.
- The item designations of the manually-operated crimping tools vary depending on the contacts and wire sizes used, as tabulated below.
- The Contact Removal tool is used for drawing out a crimp type contact, after insertion into a connector.

Crimping Tool and Removal Tool

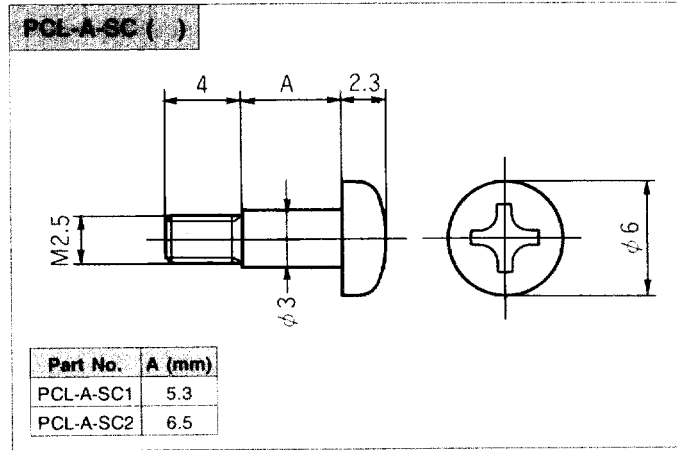
Wire size	Part number	Female		Male	
		PCL-A-F413	PCL-A-M413()	PCL-A-M313()	
26.28 AWG					★ KP-346 MDN
24.26 AWG					KP-346 MEN
18 AWG		KP-346 FA	KP-346 MA		
16 AWG		KP-346 FB	KP-346 MB		
14 AWG		KP-346 FC	KP-346 MC		
Contact Removable tool		AMQ-RT2	PCL-AM1		

★ In planning



MOUNTING SCREWS (FLOATING TYPE)

- Screw for Float Mounting of connectors for PCL-A type cables.



★ IDC assembly tools appear on 11 page.