UPT Series Product Specification and Assembly Instructions

Revision	Date	Position	Description	Owner
A	2026/8/27	N/A	Initial release	Holiday Zou

Contents

1: General

Amphenol Industrial has expanded its PT Series product line with a new plastic bayonet connector. The UPT provides more options for industrial interconnect markets that do not require a metal shell or Mil-Spec equivalents.

Based on the 26482 Series I, UPT is a plastic shell interconnect with a metal bayonet coupling system and crimp contacts. Featuring a light weight design, smaller footprint and easy field installation the UPT is a cost effective industrial connector solution.

2: Key Features

Contact size: 20#AWG 16#AWG or 12#AWG stamped crimp contact

Wall Mount and straight plug shell

Plastic Shell, Light Weight

Metallic Bayonet Coupling, Molded Ring on Receptacle

Quick Connect/Disconnect

Multiple back shell sealing accessories

RoHS compliant

3: Electrical Features

Current rating: 20# 7.5A,16# 13A,12#23A
Durability: 500 cycles
Operating Voltage: 250VAC
Operating temperature: -55℃~+125℃
Withstanding Voltage: 2000VDC
Insulation resistance: ≥5000MΩ Water proof: IP67 Class
Flammability: UL94 V-0
Cable size: 20#:20~22AWG;16#:16~18AWG/20~22AWG;12# 12~14AWG

4: Typical Connector

UPT PLUG ASSEMBLY

UPT RECEPTACLE ASSEMBLY

5: Standard Data

Material:

Plug shell: PA66+25%GF
Receptacle shell: PA66+25%GF + Copper Alloy + Stainless Steel
Insert: PA66+25%GF
Grommet: Silicone Rubber
Gasket: Neoprene Backshell:
PA66+25%GF
Coupling nut: Aluminum Alloy
Washer: Stainless Steel
Contact: Copper Alloy + Stainless Steel

Plating:

Ring: nickel plating or black zinc plating etc. Coupling nut: nickel plating or black zinc plating etc. Contact: tin plating or gold plating.

6: Receptacle Connector

Receptacle shell: fixed the insert

Insert: fixed the contact

Gasket: interface water proof

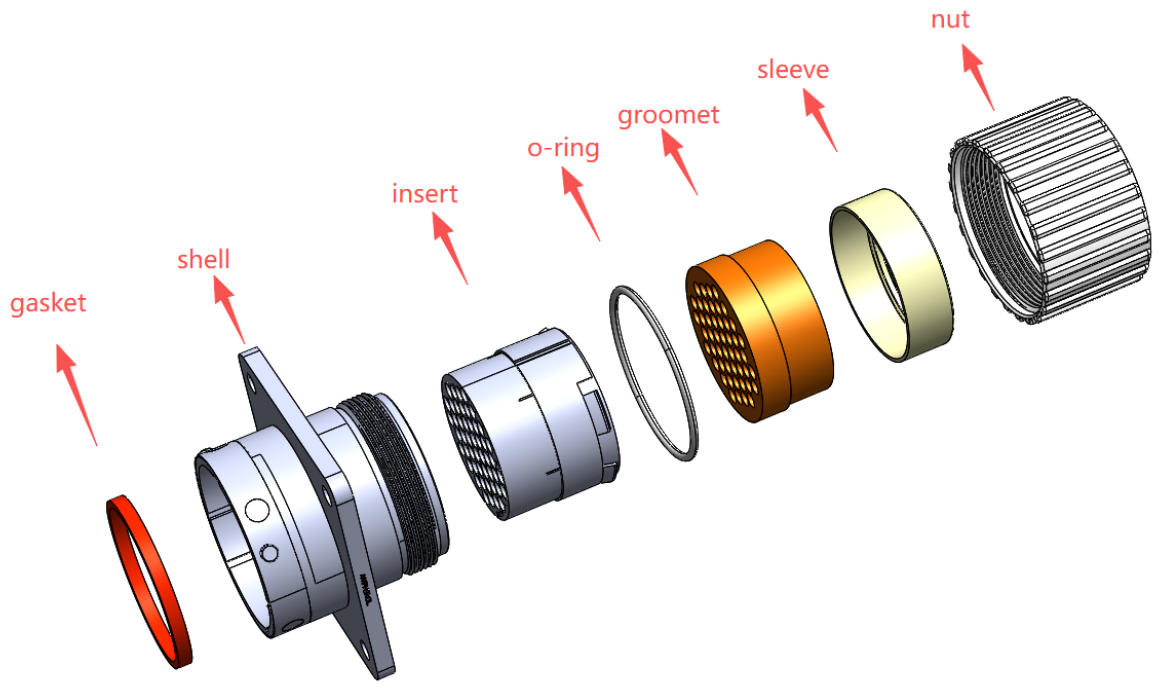
Grommet : fixed the cable and radial water proof

Back shell: fixed the grommet and connect to the shell

Sleeve: fixed the grommet

O-ring: radial water proof

Exploded view of UPT receptacle connector



7: Plug Connector

Plug shell: fixed the insert

Insert: fixed the contact

Coupling nut: connect the plug and receptacle

Grommet : fixed the cable and radial water proof

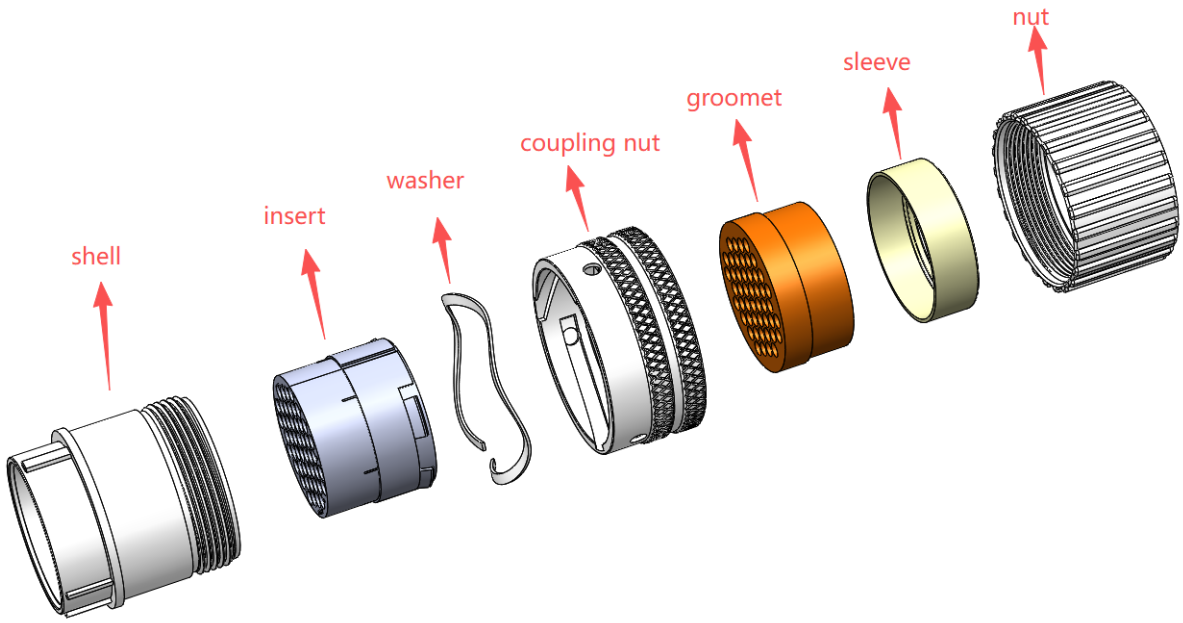
Backshell: fixed the grommet and connect to the shell

Sleeve: fixed the grommet

O-ring: radial water proof

Washer: fixed the mated plug and receptacle

Exploded view of UPT plug connector



8: Cable, Wire Preparation and Crimping

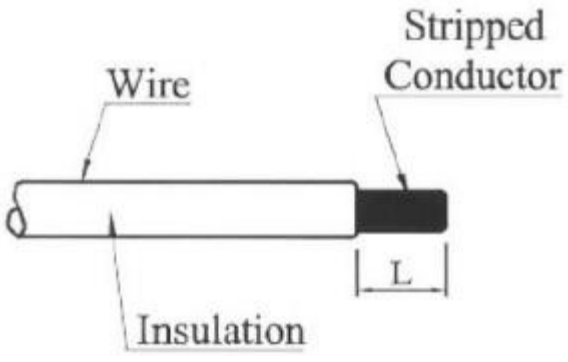
Prior to any contact crimping operations, the backshell, grommet and sleeve must be slipped on the wire bundle in proper sequence as shown in above exploded views. Note: If a back grommet is used, identifying letters on the rear face are to be used as a guide in threading wires .The letters on the grommet should align with the same letters on the rear face of the insert.

Cable and wire preparation: provide for sufficient wire slack to permit easy installation of the connector. Note: Stripping is done after placing the grommet (if used) on the wires. In some cases, where it is difficult to get wires through the grommet, the wire maybe cut at a 45°angle. Cut the wire to length and strip the insulation the appropriate distance from the end

based on below table 1

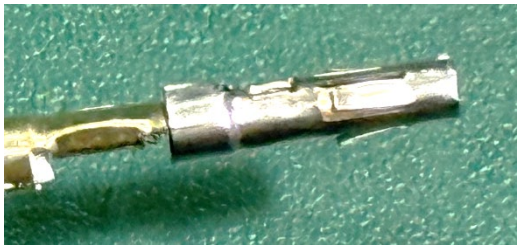
TABLE 1- STRIPPING LENGTHS

CONTACT SIZE	STRIP LENGTH "L"(MM)
20	4.0
16	4.5
12	5.0

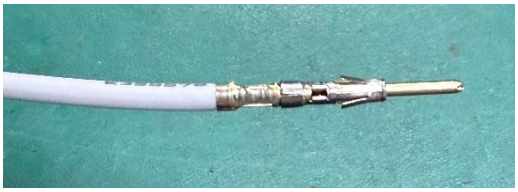


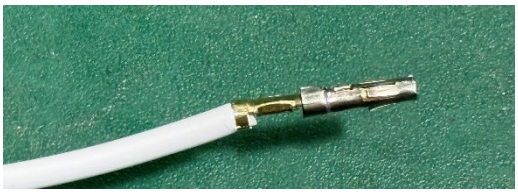
Crimping : Insert the stripped end of wire into the contact wire-well until the wire strands at the end of the wire-well, see the below : the wire strands located in area A, and the insulation located in area B.

PIN CONTACT



SOCKET CONTACT



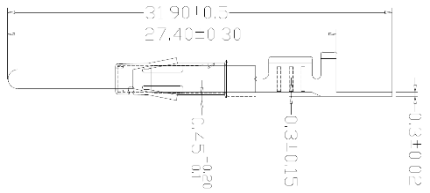


Good Crimp with wire

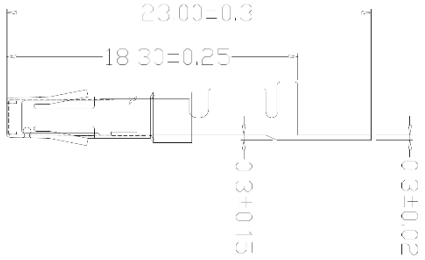
Applicable contact, see table II.

Table II

Contact part number	Cable range	Finish
C10-780107-161	16-18 AWG	Tin plating
C10-780107-162	16-18 AWG	Nickel plating
C10-780107-163	16-18 AWG	Gold plating
C10-780107-164	16-18 AWG	10u” Gold plating
C10-780107-165	16-18 AWG	30u” Gold plating
C10-780107-201	20-22 AWG	Tin plating
C10-780107-202	20-22 AWG	Nickel plating
C10-780107-203	20-22 AWG	Gold plating
C10-780107-204	20-22 AWG	10u” Gold plating
C10-780107-205	20-22 AWG	30u” Gold plating
C10-780108-161	16-18 AWG	Tin plating
C10-780108-162	16-18 AWG	Nickel plating
C10-780108-163	16-18 AWG	Gold plating
C10-780108-164	16-18 AWG	10u” Gold plating
C10-780108-165	16-18 AWG	30u” Gold plating
C10-780108-201	20-22 AWG	Tin plating
C10-780108-202	20-22 AWG	Nickel plating
C10-780108-203	20-22 AWG	Gold plating
C10-780108-204	20-22 AWG	10u” Gold plating
C10-780108-205	20-22 AWG	30u” Gold plating
C10-780110-121	12-14 AWG	Tin plating
C10-780109-121	12-14 AWG	Tin plating



PIN CONTACT



SOCKET CONTACT

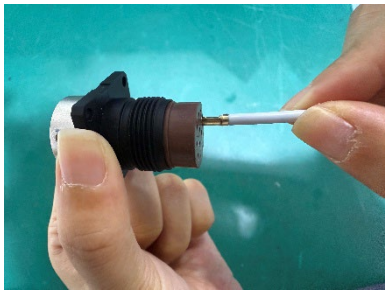
9: Installation of Contacts

Before contact insertion, make sure grommet align with insert.

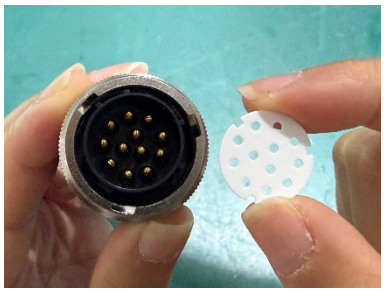
And remember to assemble locator to fix the pin contact after all contact insertion complete.

Install tooling(picture 5) shall be used, when contact assemble with small size wire.

Picture 1



Picture 2



Picture 3

Picture 4

Picture 5

Socket contact can use the pilot pin to guide the contact for connector assembly.

Pilot pin P/N:C10-242758-016.

Install tooling :M81969/17-04

10: Extraction of Contacts

Extraction tooling list below

20#AWG contact extraction tool：		TOOL-738651-020
	cover contact	10-738774-XXX
	cover contact	10-780111-XXX
16#AWG contact extraction tool：		TOOL-738651-016
	cover contact	10-780107-XXX
	cover contact	10-780107-XXX
	cover contact	10-780108-XXX
	cover contact	10-780108-XXX
12#AWG contact extraction tool：		TOOL-738651-012
	cover contact	10-780110-XXX
	cover contact	10-780109-XXX

11: Torque Spec