



HDC H1A-012 Insert Series

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1. INTRODUCTION

This specification contains the regulations for assembly of H1A-012 Insert Series and the handling of these inserts.

2. SUPPORTING DOCUMENTS

2.1. Customer drawings

Please refer to the customer drawings of H1A-012 Insert Series.

2.2. Product specification

The product specifications of the used articles are to be taken into account. The product specification describes the technical data as e.g. regulations, approvals, temperature range and rated voltage.

For further reference refer Product spec. 108-137574.

2.3. Application Specification

Connectors shall be assembled as below mentioned application specifications to ensure correct connector assembly.

2.4. Standards

- EN 61984: Connectors - Safety requirements and tests
- IEC 60664-1: Insulation coordination for equipment within low-voltage systems (Part 1)

3. DESCRIPTION

This application specification describes the male insert and the female insert of the H1A-012 Series Insert.

The listed terms are used in the specification as shown H1A-012-M/F with Cable adapter and crimping contact need order separately in figure 1.

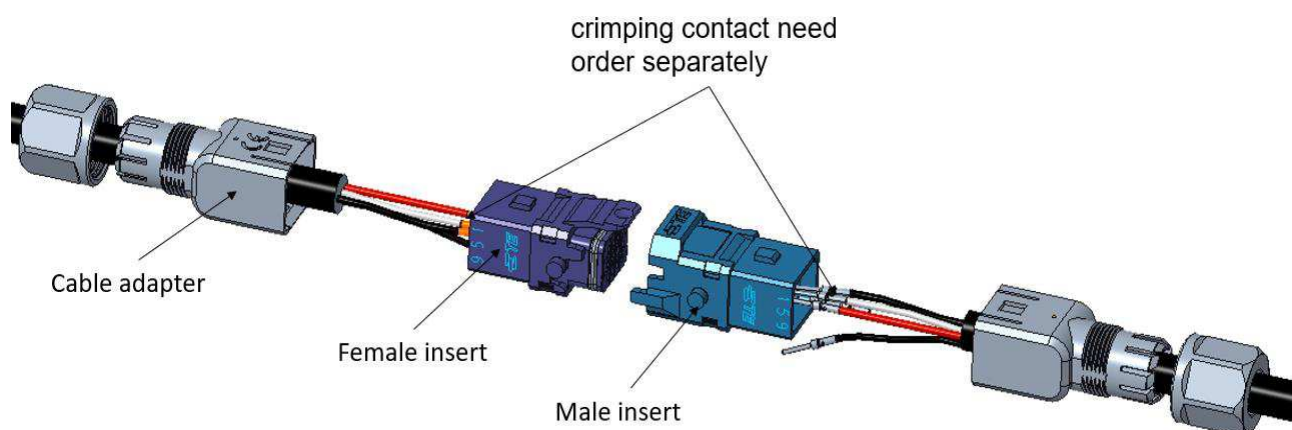


Figure: 1

4. CRIMPING GUIDE

4.1. Cable preparation.

Cable diameter and stripping wire length are as follow picture show:

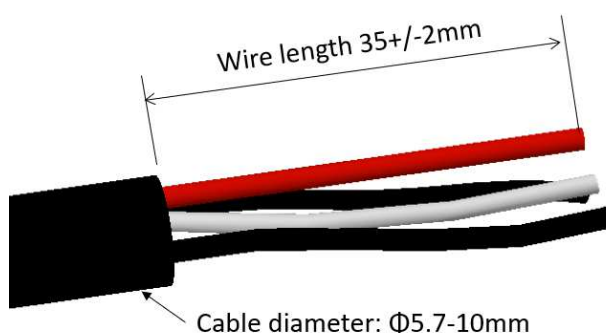


Figure: 2

4.2. Wire for contact selection and preparation

- Wire stripping length L
- Use proper tooling to strip the wire.

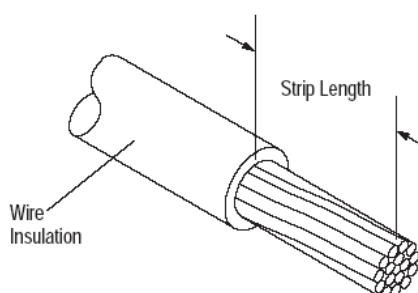


Figure: 3



When stripping the wire, care must be taken to avoid scraping, nicking, or cutting the conductor. Care must also be used when handling the wire during stripping to prevent cracking or breaking the conductor and insulation.

Depending upon the cross section of the wire or cable, the stripping length has to be selected from the table below. See Table 1.

Table: 1

Contact Insert	Wire cross section		Strip Length For Reference	Wire insulation diameter	Voltage Rating
	[mm ²]	AWG	L [mm]	Φ[mm]	
H1A-012	0.14-0.52 mm ²	26-20	4	< 2.3mm	50V

Any wire that is used for the Electrical purpose is covered with insulating polymer. This insulation on the wires depends upon the wire size and type of application where it is being used.

4.3. Contact crimping.

Assemble stripped wires to contacts by using crimping tool
Crimping tool is available as below Figure 4:



- ♦ Wire range: 26AWG ~ 12AWG (0.14 mm² ~ 4.0 mm²)
- ♦ Type: RPC-M23-T-B
- ♦ Order number: T3100000022-000

Figure: 4

➤ Crimp

Insert the cable - stripped according to Table 1 - into the wire barrel of the contact. The wire strands must be visible in the reference hole of the contact. Afterwards, crimp the contact in the crimp area, using the correct tool for this type of contact. During the termination process make sure that the contact in the contact zone is not damaged or deformed.

When using manual crimp tools the following points must be followed:

- 1). Equip manual crimp tool with the correct locator or positioning ferrule.
- 2). When using different manual crimping tools the pliers have to be adjusted by plug gauge to fit the crimp area.
- 3). Fully insert contacts into the locator.
- 4). Clamp the wire with help of crimp tool. Note that to press the crimp tool till the stopper is reached a positive crimp.

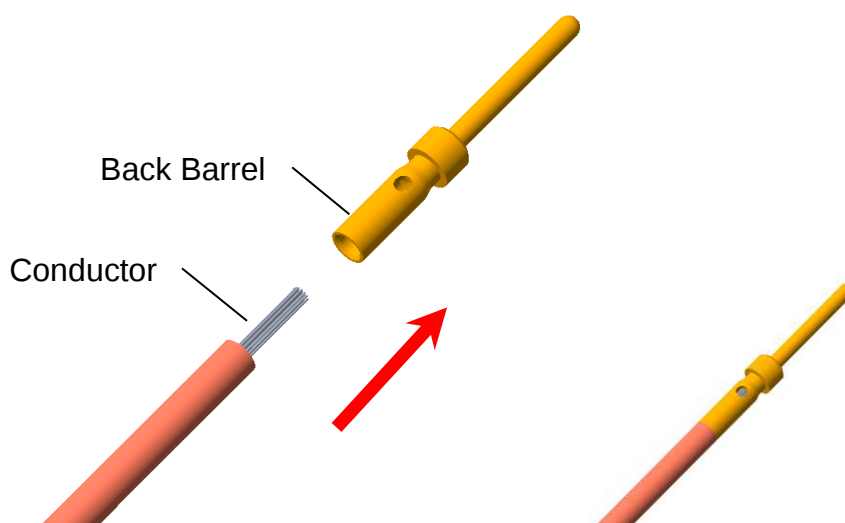


Figure 5

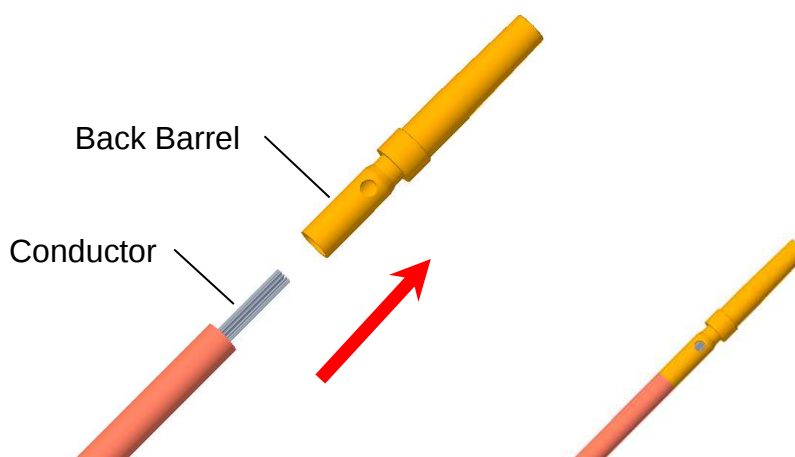


Figure 6

5. ASSEMBLY

5.1. Insert crimped terminal and assembly cable adapter:

1. Reeve the crimped terminal cable to the cable adapter as Figure 7 show:
(Optional: Crimping the terminal after reeve cable to cable adapter are also acceptable)

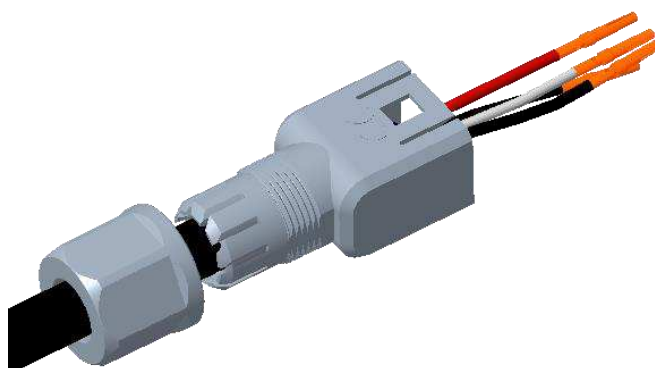


Figure: 7

2. Plug crimped contact into the required chambers of insert by gently pushing it until the contact is locked by the inserts, a click should be heard normally.

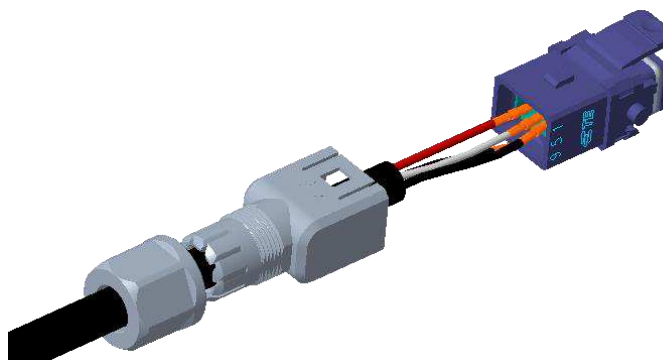
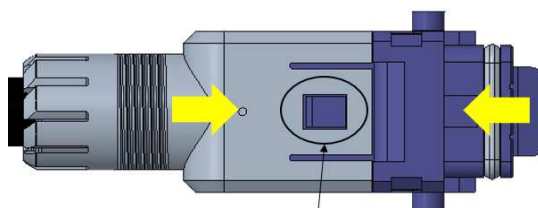


Figure: 8

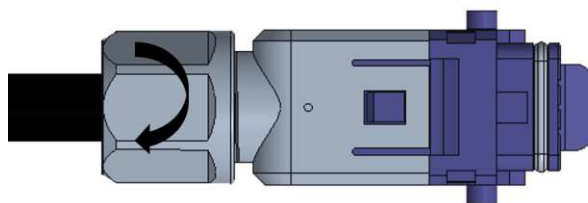
3. Assembly cable adapter to insert:



Make sure two components
locked by buckles

Figure: 9

4. Fasten cable adapter nut:



Fasten the cable adapter nut
by torque force 1.5-2 Nm

Figure: 10

5. For the male insert assembly, follow same processing:

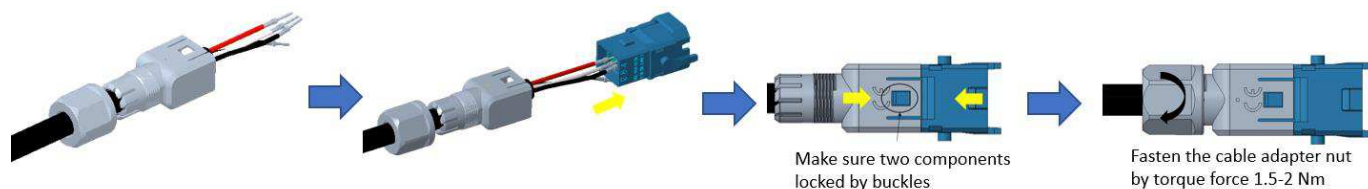


Figure: 11

5.2. Male side and female side Mating.

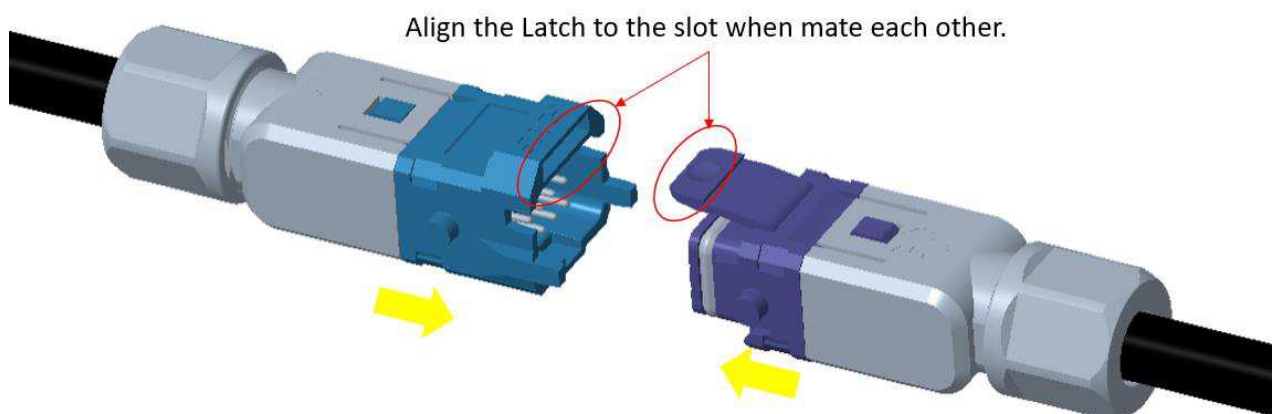


Figure: 12

Click should be heard,
make sure Latch buckled

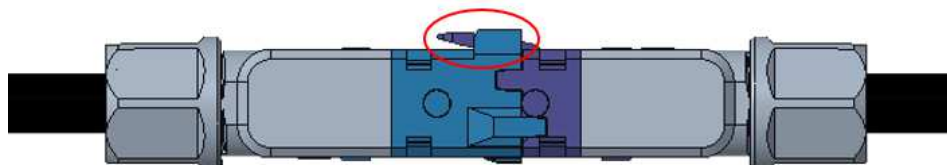


Figure: 13

5.3. Frame fixing.

1. Assembly the frame on plate:

Fix the frame on the
plate with M3 Screw

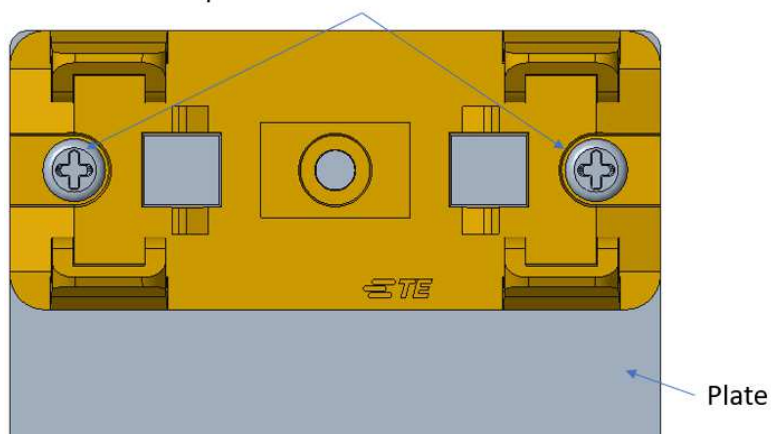


Figure: 14

2. Fix the mated H1A connector on plate:

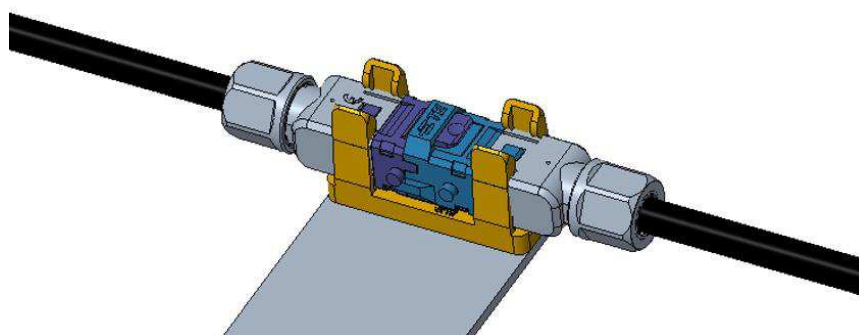


Figure: 15

3. Fix the cable ends to avoid Hanging wire:

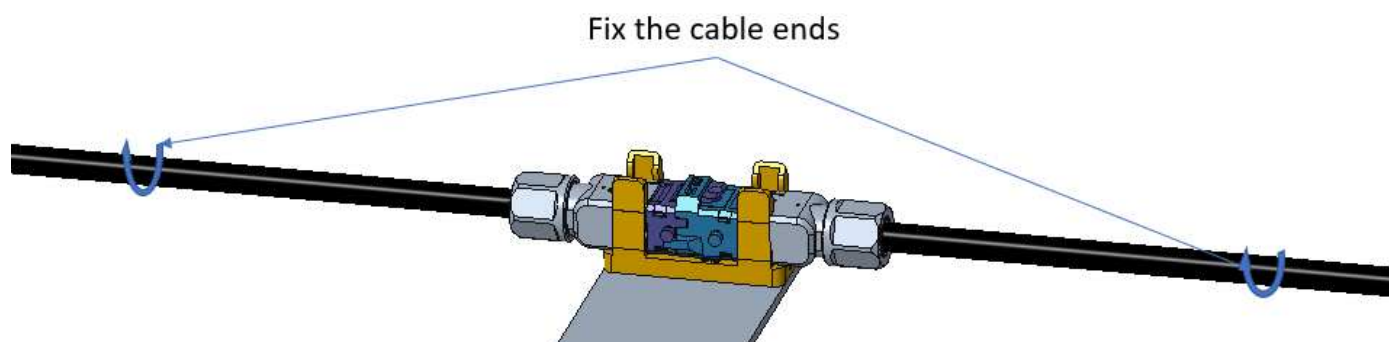


Figure: 16

5.4. Marking

The connector type, rating and the number of positions etc. refer to the corresponding H1A-012-M/F insert customer drawings.

6. STORAGE

6.1. Chemical exposure

Do not store the connectors near any chemical listed below as they may cause corrosion stress the connector contacts:

Alkalies, Ammonia, Citrates, Phosphates, Citrates, Sulfur, Amines, Carbonates, Nitrites, Sulfides, Nitrites, Tart rates.

6.2. Storage condition

The connectors should be stored in the air ventilation, no corrosive gas, no rain and no snow in the warehouse. Relative humidity: less than 85% RH (For connectors which include insert and contacts or contacts only, the preferred storage temperature is 10° C~27° C, Relative humidity: 25%~60%). The connectors should remain in the shipping containers until ready for use to prevent deformation to the contacts. The connectors should be used on a first in, first out basis to avoid storage contamination that could adversely affect electrical functions.

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