1. Scope
This document describes procedures for cable termination for HR25A-9P-** and HR25A-7P-** connectors.

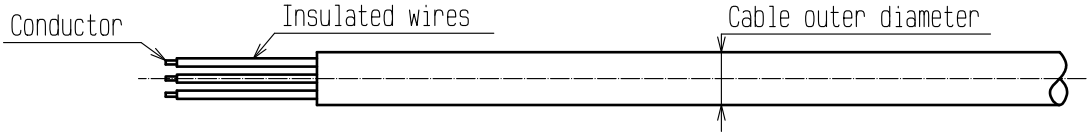
2. Procedure steps

No.	Procedure steps

1

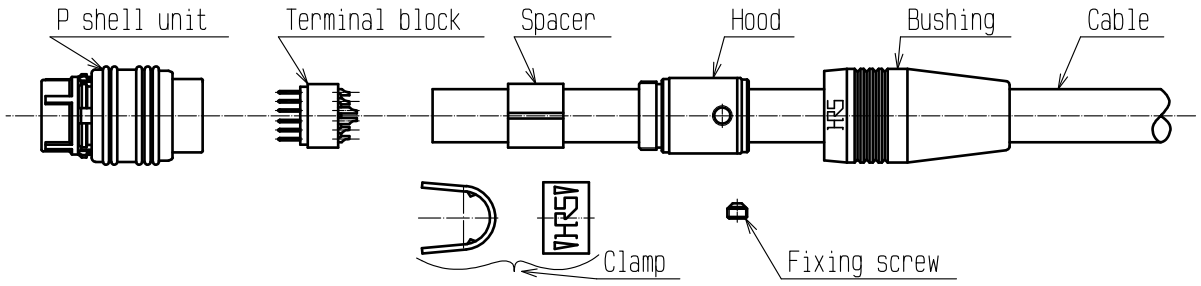
♦Preparing the cable.
Use cables with the sizes shown below.

	Cable outer diameter	Nominal cross sectional area of conductor
HR25A-9P-※※	φ7± 0.2	0.08mm^2(AWG#28)max
HR25A-7P-※※	φ5± 0.2	0.08mm^2(AWG#28)max



2

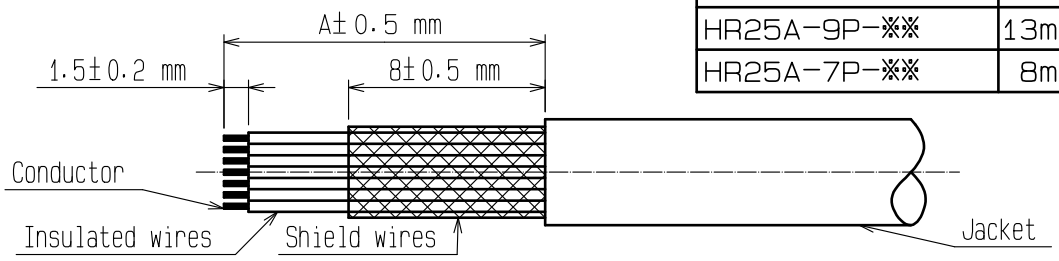
♦Before you begin, insert the following parts over the Cable in the following order:
Bushing, Hood and Spacer.
Note! - The Fixing screw is very small. Make sure not to misplace it.
- Also make sure of inserting the Bushing and the Hood with correct direction.



3

♦Strip the cable jacket the ends to the dimensions shown below.
Note! - Make sure that you do not damage the insulated wire's sheath or conductor when finishing the ends. Damage to these areas can result in faulty insulation.

	Dimension A
HR25A-9P-※※	13mm
HR25A-7P-※※	8mm



	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠2	2	DIS-C-00016067	DS.MATSUNE	EJ.KUNII	20230907

名 称 TITLE

Harnessing Procedures for : HR25A-9P-**
HR25A-7P-**

ヒロセ電機株式会社
HIROSE ELECTRIC CO., LTD.

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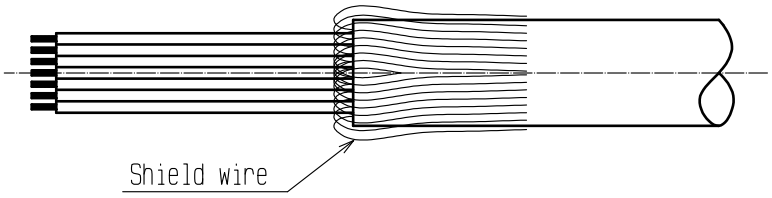
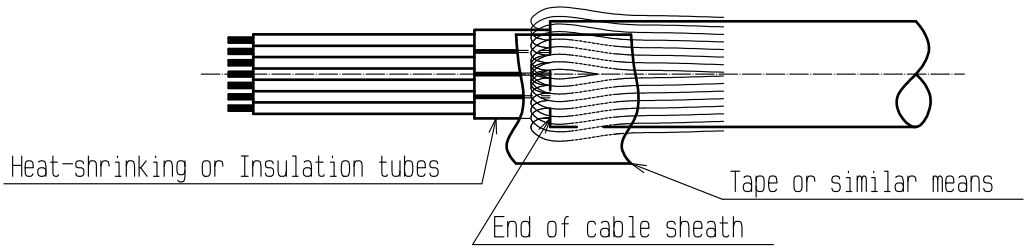
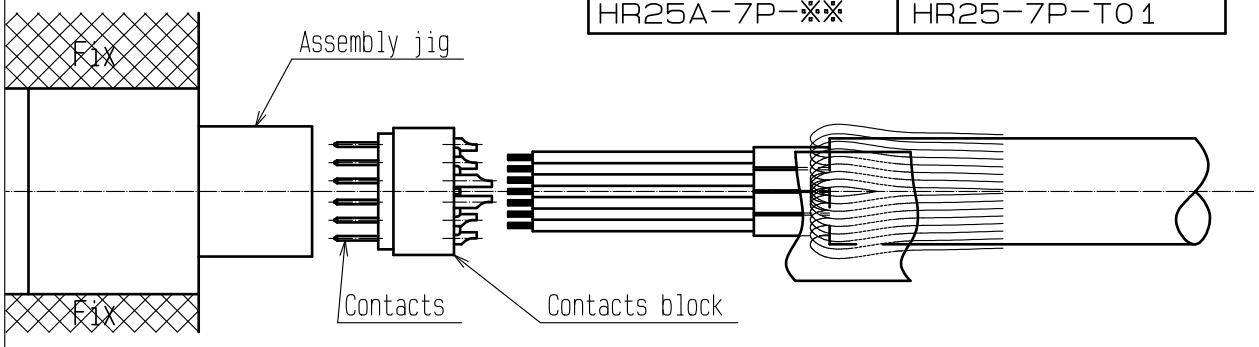
技 術 指 定 書 TECHNICAL SPECIFICATION

ETAD-C0140 ⚠2 1/6

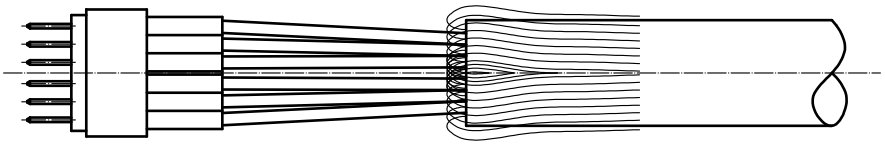
FORM 213-1

No.	Procedure steps
4	♦Fold back the Shield wires. Note! - If a woven shield is used, unravel the weave and fold the Shield wires straight to the back. If the shield is folded back with its weaving intact, you may break it when you crimp the Clamp. 
5	♦Insert Heat-shrinking or Insulation tubes over the insulated wires. Note! - Heat-shrinking or Insulation tubes should ideally be inserted over each of the insulated wires. If this is difficult to do, insert them over every other insulated wire, making sure that at least one of the wires adjacent to each other on the contact is covered. - Because Heat-shrinking or Insulation tubes get in the way of performing connecting work, temporarily fix them to the End of the cable sheath using a Tape or by similar means. 
6	♦Solder the wires Note! - Make sure not to make solder balls, lumps or whiskers as these can weaken solder strength or cause insulation failure. - When soldering, make sure not to heat the insulated wires or housing to the point that they begin to melt. Melting can result in insulation failure or weaken the contact fixation strength. - Make sure to prevent deformation of the contact using tools such as an Assembly jig. Deformed Contacts can cause engagement failures. △1 Note! - Recommended solder iron is with function for temperature adjustment on the sold iron head, and 50 watts minimum power.

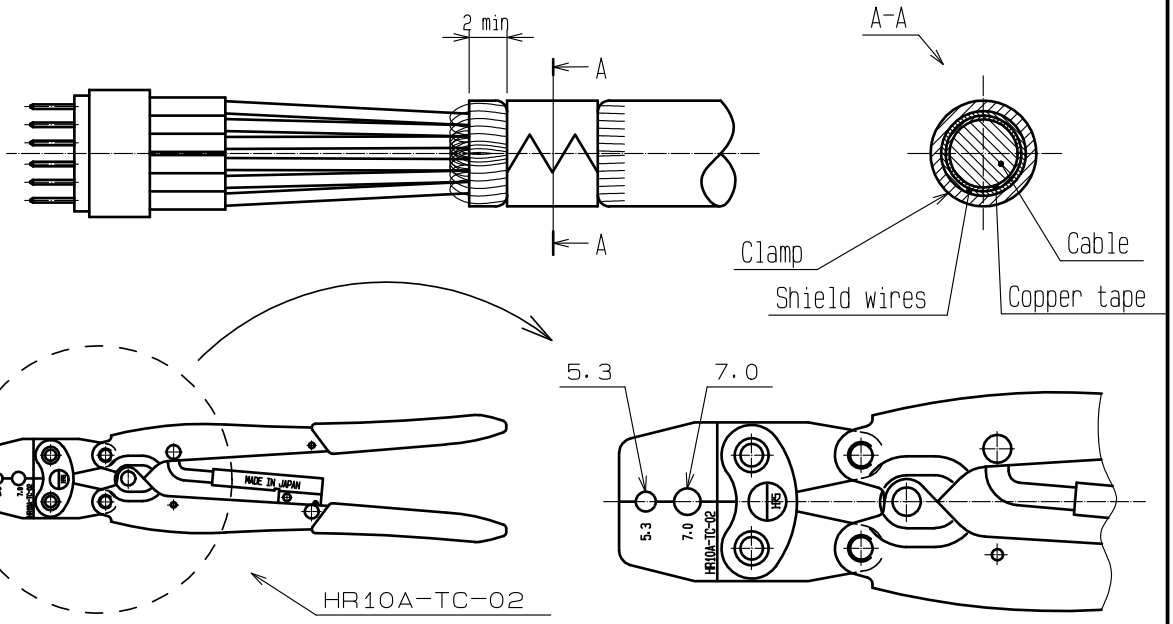
	Assembly jig
HR25A-9P-※※	HR25-9P-T01
HR25A-7P-※※	HR25-7P-T01



FORM 213-2

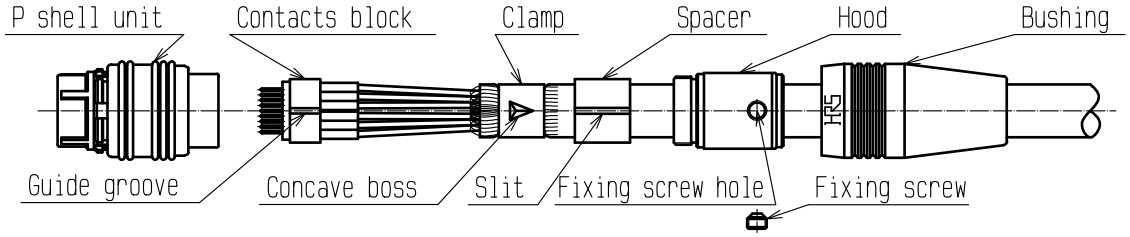
No.	Procedure steps
7	♦Cover the wire connection area with Heat-shrinking or Insulation tubes. Note! - When shrinking the Heat-shrinking tubes with a heat gun or similar tool, make sure not to heat the insulated wires or housing to the point that they begin to melt. Melting can result in insulation failure or weaken the contact fixation strength. 
8	♦Crimp the Clamp to the Cable Note! - A Copper tape or similar material to have stable condition once around the Cable wrapp jacket and then folding the Shield wires back before crimping the Clamp. - Always make sure to maintain a length of at least 2mm for the area shown in the drawing below. Lengths shorter than this can result in insufficient cable pulling strength. - Make sure not to damage the Cable sheath when crimping the Clamp.

	Cable crimping tool	Tool orifice
HR25A-9P-※※	HR10A-TC-02	7.0
HR25A-7P-※※	HR10A-TC-02	5.3



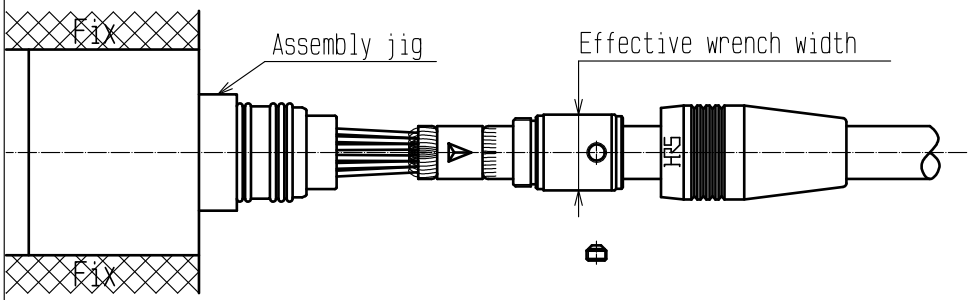
FORM 213-2

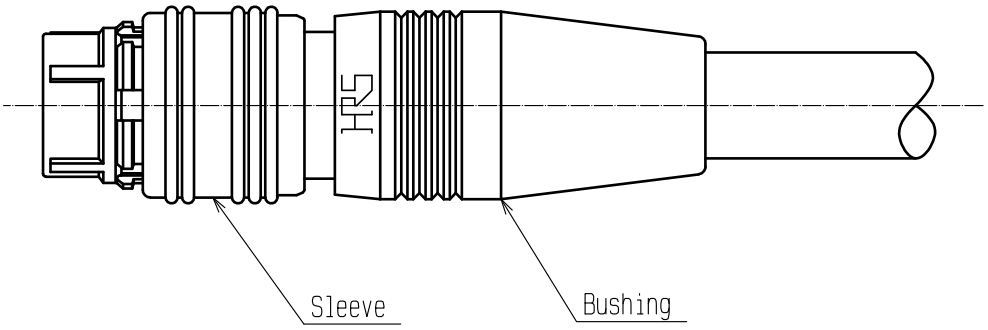
No.	Procedure steps
9	♦Assemble the parts - Set the P shell unit to the tightening jig. - Attach the Contacts block to the P shell unit. - Attach the Spacer to the P shell unit. - Tighten the Hood onto the P shell unit. - Attach the Fixing screw to the Hood. - Attach the Bushing to the Hood. Note! - When attaching the Contacts block and Spacer, make sure to match the convex guide on the P shell unit with the Guide groove on the Contacts block and the slit on the Spacer. Failure to match these guides can result in a location failure which would lead to an engagement failure or the Contacts block not being attached at its specified position which would lead to a contact failure. - Tighten the Hood at the specified torque. Torque greater than specification will break the screw and torque weaker than specification will result in looseness. In either case, the Hood will rotate and lead to wire breakage in the connection area. △2 - Tighten the Fixing screw to the cord tube at the specified torque. To prevent loosening, apply LOCTITE 263 manufactured by HENKEL JAPAN Co.,Ltd. Before you do this, look through the Hood Fixing screw hole on the Hood and find the Concave boss on the Clamp, make sure that the end of the Fixing screw goes into this Concave boss and then tighten the screw. If the Fixing screw does not go into this Concave boss, the Fixing screw will protrude from the Hood, causing damage to the Bushing or prevent the Clamp from fixing onto the Hood. Either of these situations will result in loads being applied to the connection area and can cause wire breakage. - While the threaded area on the Hood is treated with an anti-loosening treatment (MEC treatment), its adhesive strength will decrease when reused. △2 To prevent loosening, apply LOCTITE 263 manufactured by HENKEL JAPAN Co.,Ltd. according to the Loctite applying procudure manual(ETAD-C0521-00).



	Tightening jig	Hood tightening torque	Effective Hood wrench width
HR25A-9P-※※	HR25A-9P-T02	1± 0.1N·m	10mm
HR25A-7P-※※	HR25A-7P-T02	1± 0.1N·m	8mm

	Hexagon dimention of Fixing screw	Tightening torque	Hexagon screw driver
HR25A-9P-※※	1.27 mm	0.3~0.4 N·m	PB205/1.27
HR25A-7P-※※			



No.	Procedure steps
10	♦Assembly product Note! - While this connector can be held anywhere (on the Sleeve or Bushing) to make a connection, it will not make a "click" sound (audible) when you hold the Sleeve to do so. To make this "click" sound, hold the Bushing to make connections. 
11	♦List of required tools

	HR25A-9P-※※	HR25A-7P-※※
Assembly jig	HR25-9P-T01 CL150-0086-0	HR25-7P-T01 CL150-0085-8
Tightening jig	HR25A-9P-T02 CL150-0242-4	HR25A-7P-T02 CL150-0243-7
Cable crimping tool	HR10A-TC-02 CL150-0041-2	
Hexagon screw driver	PB205/1.27 CL150-0066-3	

Procedure steps

♦Examples of specifications of conforming cables (for your information only)

6 wires shielded cable		
Conductor	Configuration	Six Wires (AWG#28) consisting of seven 0.127 stranded wires
	Material	Tin plated soft copper wire
Woven shield	Configuration	Seven wires consisting of twenty-four 0.1 stranded wires (example)
	Material	Tin plated soft copper wire
Sheath	Outer diameter	Ø5±0.2
	Material	PVC or other material
Characteristics	Conductor resistance	223Ω/km at20℃
	Insulator resistance	10MΩ-km at15.6℃
	Withstand voltage	A.C.500V/1min.
	Standards	UL certified

20 wires shielded cable		
Conductor	Configuration	Twenty wires (AWG#28) consisting of seven 0.127 stranded wires
	Material	Tin plated soft copper wire
Woven shield	Configuration	Seven wires consisting of twenty-four 0.1 stranded wires (example)
	Material	Tin plated soft copper wire
Sheath	Outer diameter	Ø7±0.2
	Material	PVC or other material
Characteristics	Conductor resistance	223Ω/km at20℃
	Insulator resistance	10MΩ-km at15.6℃
	Withstand voltage	A.C.500V/1min.
	Standards	UL certified

Note! - These cable specifications are examples only.
Check the "Cable outer diameter" and "Nominal cross sectional area of conductor" described in "Procedure Step 1" and choose the right size cable for the size of your connector.
- When using cables with unusual jacket material, cable configurations, conductors or woven shield configurations, make sure to check to see that the condition of yourwire connections, as well as the electrical and mechanical quality of theconnection meetconnection meet your specifications.

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