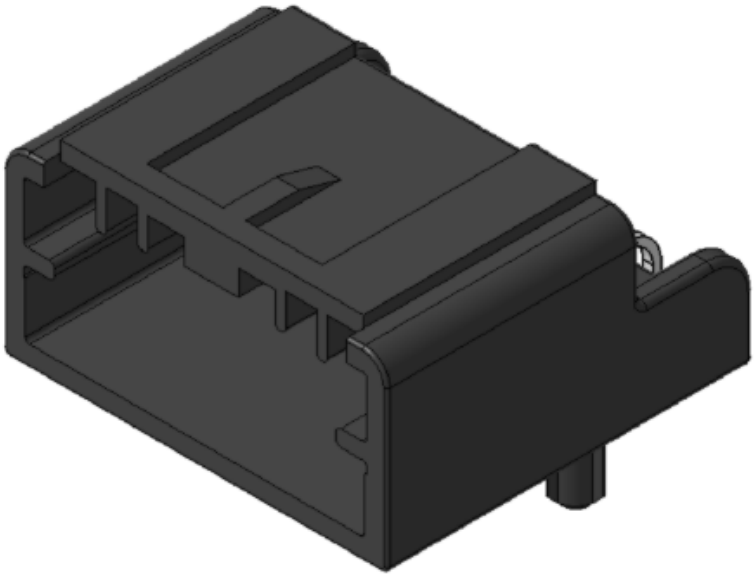
Handling Manual for

0.5 System Connector 6P PCB Header Assembly 90°



Prepared	Sign	Checked	Sign	Approved	Sign	
J.Sostar	Digitally signed by Jurica Sostar Date: 2023.02.21 13:58:27 +01'00'	D.Vida	Digitally signed by Dragutin Vida Date: 2023.02.21 13:50:43 +01'00'	G. Greguric	p.p. Digitally signed by Dragutin Vida Date: 2023.02.21 13:51:02 +01'00'	YAZAKI
Date 20.02.2023		Date		Date		Doc.No. YPES-15-1843 / Rev. 2

Table of Contents

1 Revision list

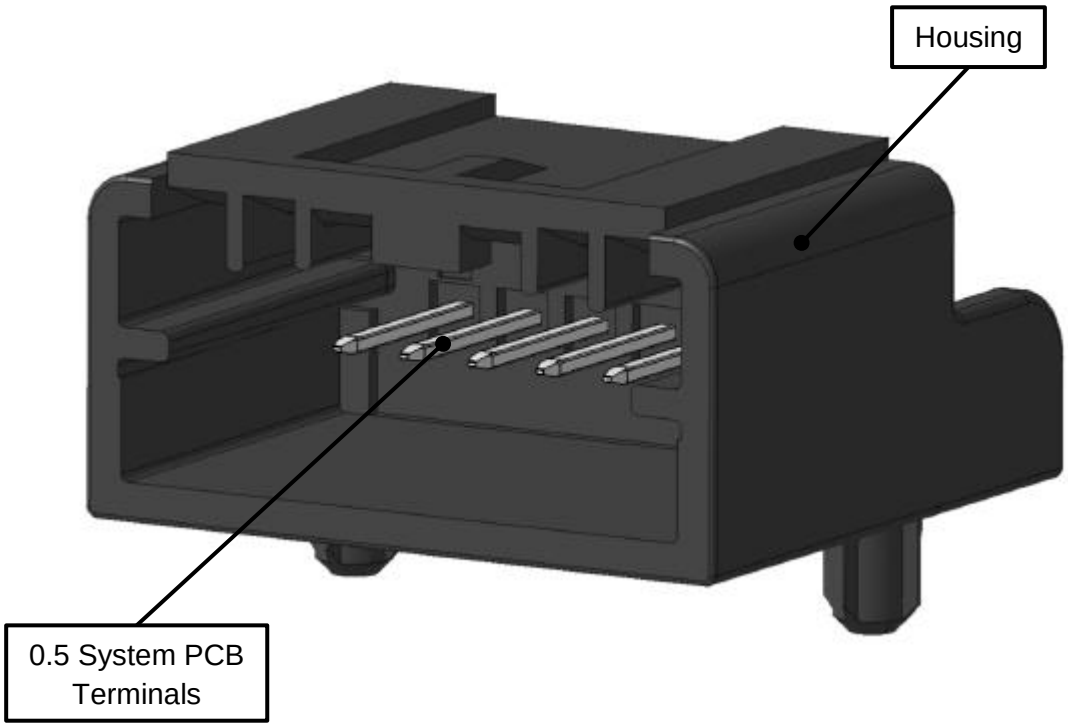
REVISION	DESCRIPTION	NAME	DATE
0	New	J.Vlahovic	01.10.2018
1	Added massproduction part numbers	J.Sostar	07.08.2019
2	Changed color and part number	J.Sostar	20.02.2023

2 Product Overview

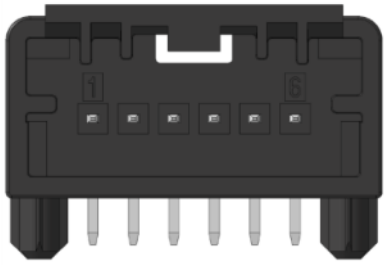
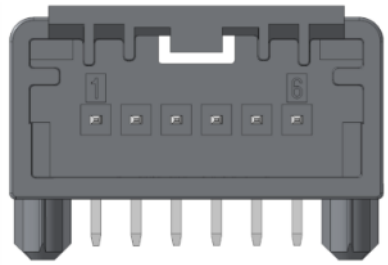
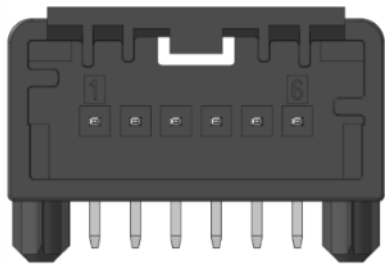
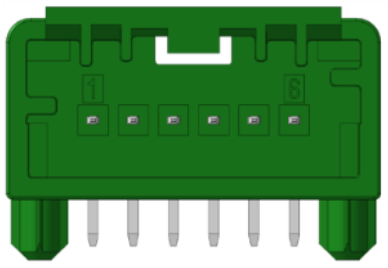
This Handling Manual contains the guidelines for the application of the YAZAKI 0.5 NWP System Connector 6P PCB Header Assembly 90°. The Terminal system used is 0.5 mm system. The header is designed for signal current application and used as an electrical component between female connector and PCB.

2.1 Delivery Condition

Header assembly is delivered as plastic housing with 6 stitched and bent terminals. Assembly arrives in tape on reel.



2.2 Coding

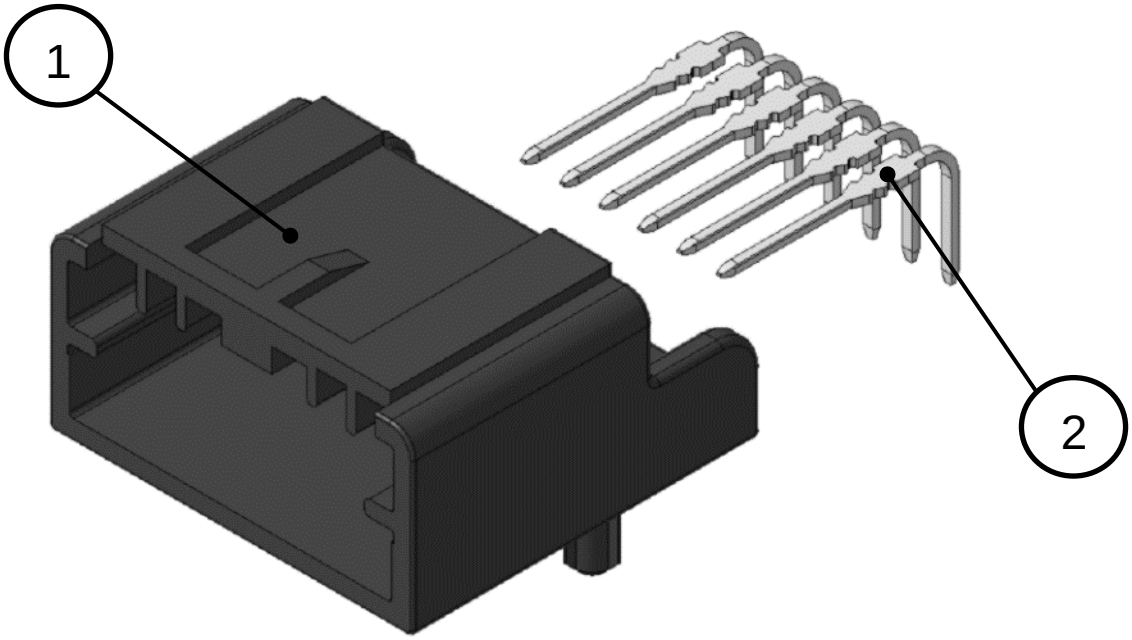
0.5 NWP SYSTEM CONNECTOR 6P PCB HEADER ASSEMBLY 90°			
VIEW	CODE	COLOR	YAZAKI PART NUMBER
	A	Black	7225-4386-30
	B	Light Gray	7225-4387-40
	C	Dark Gray	7225-4388-10
	D	Green	7225-4389-60

2.3 Mechanical properties

Temperature class	Class T2 (-40°C to 100°C)
Vibration class	Class V1
Sealing class	Class S1 (Unsealed)

* According to USCAR-2 Rev 6, dated February 2013

2.4 Exploded View



2.5 Bill of Material

NUMBER	DESCRIPTION	YAZAKI PART NUMBER	MATERIAL	COLOR / PIN PLATING
1	0.5 NWP System 6P PCB Header Housing 90°	7125-4386-30 7125-4387-40 7125-4388-10 7125-4389-60	PA4T-GF30	Black Light Gray Dark Gray Green
2	0.5 System PCB terminal	7125-1629-02	CuNi1ZnSi R520	Tin

2.6 Associated Documents

DRAWINGS

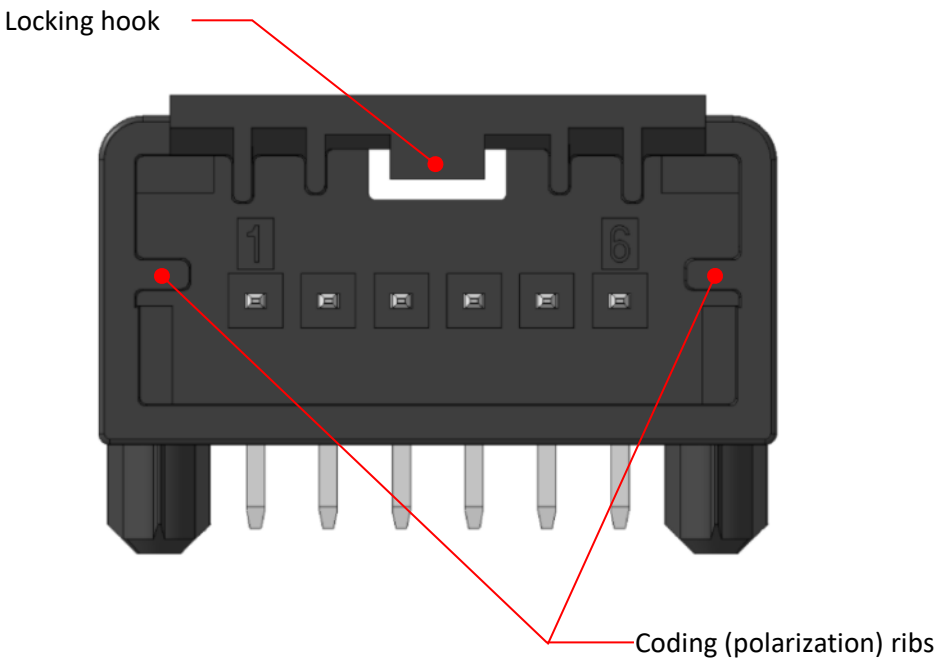
The dimensions and materials are shown in the YAZAKI Reference drawing for 0.5 NWP System Connector 6P PCB Header Assembly 90°:

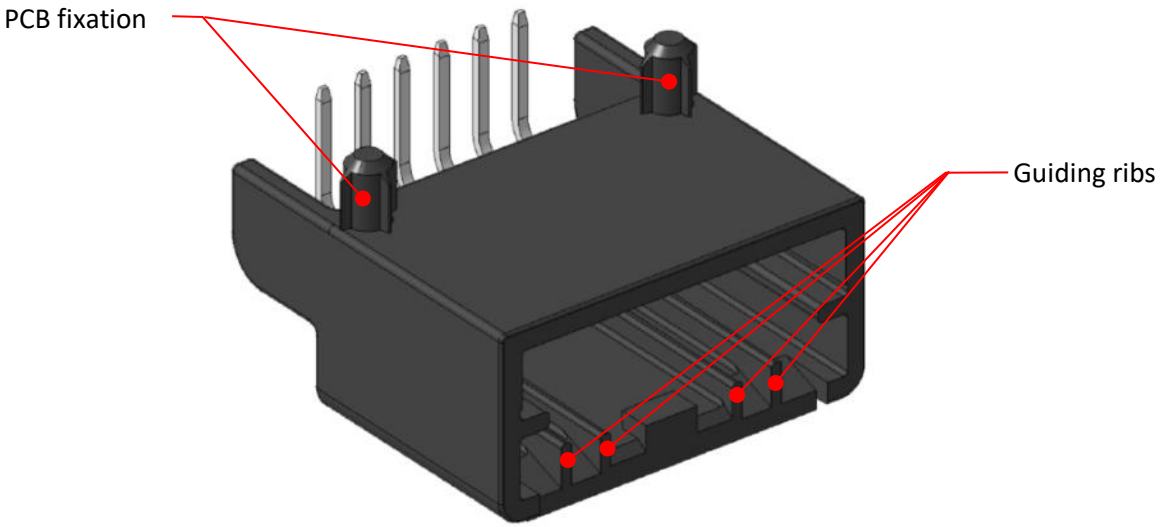
– 7225-4386-30:R

2.7 Features and Functions of Components

2.7.1 Header Assembly

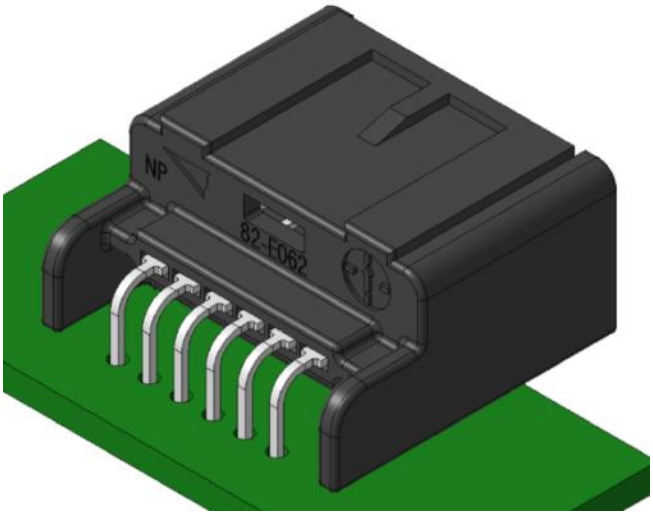
The figures below are showing main features of the 0.5 NWP System Connector 6P PCB Header Assembly 90°, with their corresponding descriptions/functions (see table).

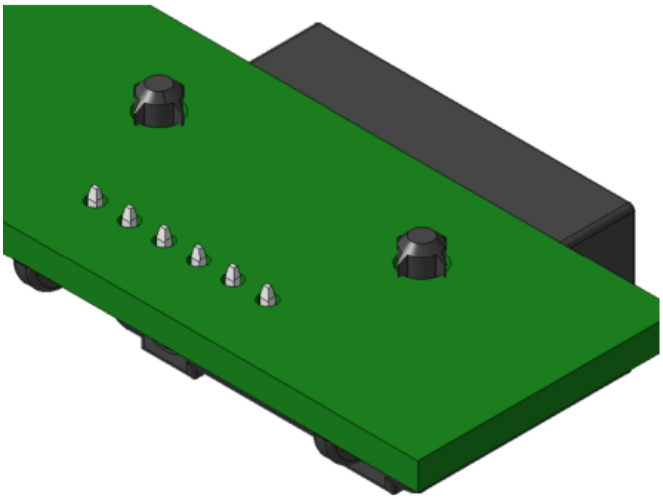




FEATURE	DESCRIPTION / FUNCTION
Locking hook	Locking hook is feature that assure holding between female connector and header. When female connector is fully mated its locking arm hooks on header's locking hook. Also its function is enabling movement of CPA from preset to set position.
Coding (polarization) ribs	During mating coding (polarization) ribs at the Header have to get into the coding (polarization) slots on the female connector. Ribs prevent miss orientation of female connector during mating. It is not possible to mate header with different coded female connector.
PCB fixation	Feature is used to hold header in position on PCB before soldering.
Guiding ribs	Ribs enter in the slots on female connector and help guiding connector in mating process. That assure better protection of pins.

2.7.2 Header mounted on the PCB





3 Handling of components

3.1 Inspection of received items

1. Appropriate part number
2. Visual check – parts must be free of foreign objects or inappropriate products
3. Parts must be free of cracks, deformation, or other apparent abnormalities (sink marks, short shots, etc.)

3.2 Header storage and transportation

- Ensure that the products are not subjected to any external stress or harsh impact during storage and transportation.
- The product should be stored inside, in a clear dry atmosphere, away from direct sunlight.
- Do not store them without ESD protected packing trays. They should be protected especially from water, oil and dust.

3.3 Storage conditions

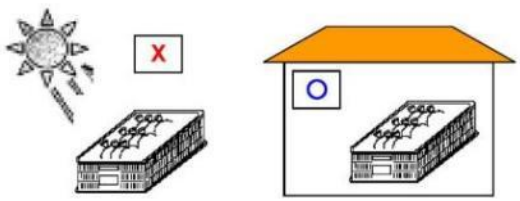
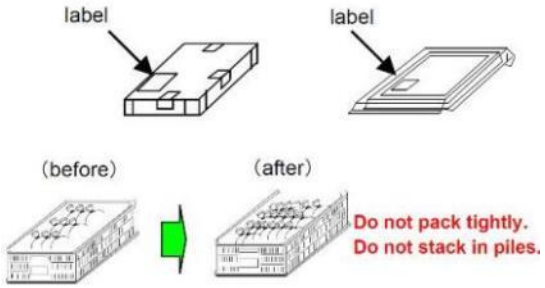
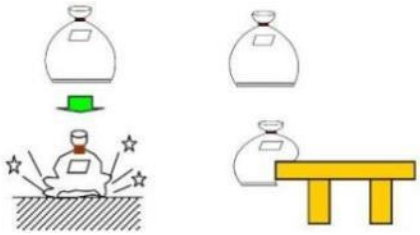
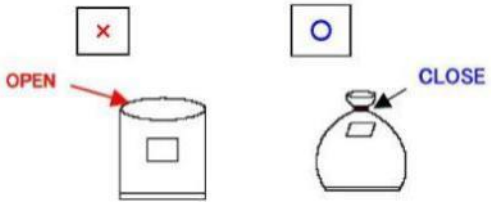
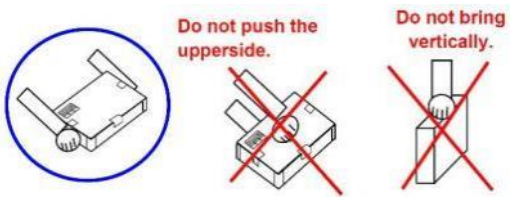
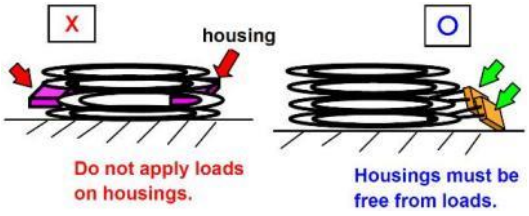
Part numbers: 7225-4386-30, ETC.

Material: PA4T–GF30

STORAGE CONDITIONS	
Storage time	6 months max
Storage temperature	+10°C to +30°C
Relative Humidity	10 to 60%

REMARK: If storage time is exceed parts must be dried before soldering.

3.4 Handling and Storage of Header

No.	CONTROL PROCESS	ILLUSTRATION	INFLUENCE ON QUALITY
1	1) Please store plastic and carton cases used for housing storage at room temperature, avoiding moisture and direct sunlight. 2) Please equalize housing temperature with room temperature.		1) There are risks of breakage and discoloration due to housing material degradation. 2) There are risks of damage on lance, hinge and breakage of lock or other problems.
2	1) Please turn the label on packages upward during storage. 2) Please do not apply pressure to housings in bag packages during storage. Please do not replace plastic cases and carton boxes with storage boxes.		There are risks of incorrect position of child parts, deformation or other problems.
3	When carrying housings, please pay attention in order to avoid damage or impact to the products.		There are risks of deformation, breakage, incorrect position of child parts or loss of parts.
4	Please put a cover or close the bag to prevent dust accumulation.		There is a risk of contact defect due to adherence of dust. There is also a possibility of a sealing defect.
5	When carrying housings, please hold the underside of the container with both hands. Do not position the box vertically and not push the upper side of the box.		There are risks of deformation, damage or loss of parts.
6	Please store your products in a way that does not apply a load on housings.		There are risks of deformation due to the pressure from the weight and risks of breakage due to shock.

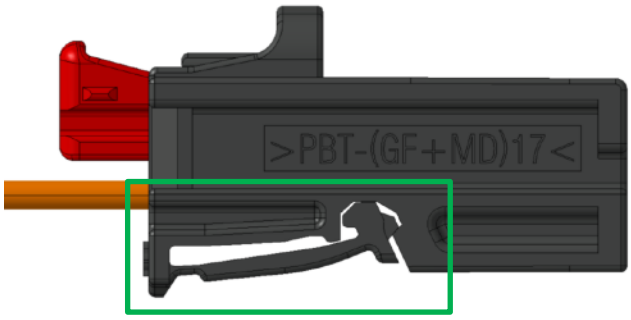
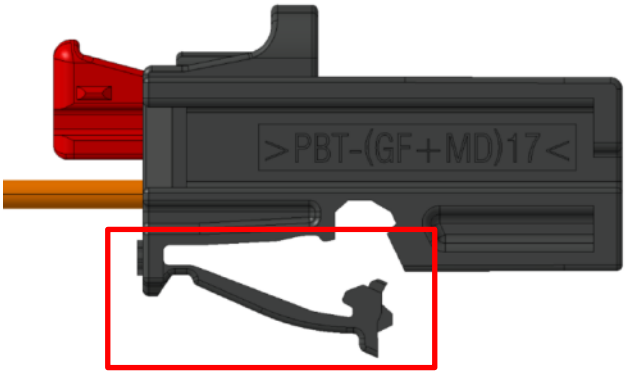
4 Assembly on the car manufacturer's line

4.1 Female connector check

Before mating check of female connector must be done.

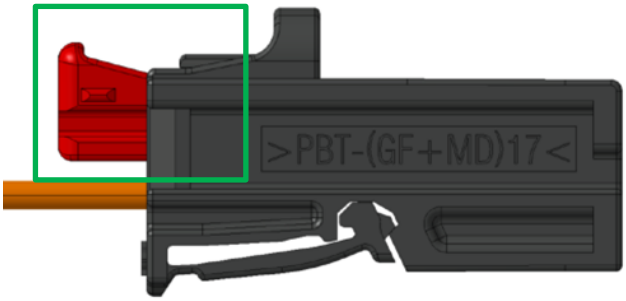
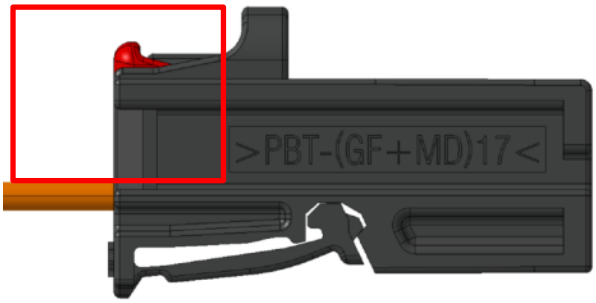
4.1.1 Hinged secondary lock

Hinged secondary lock must be in set position after insertion of all 6 female terminals.

OK	NOK
	

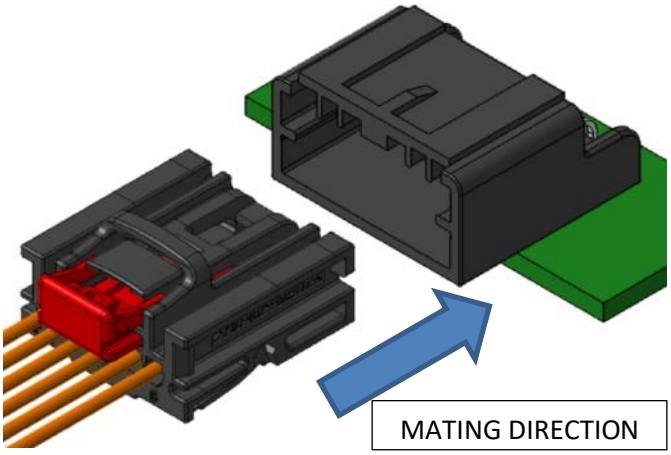
4.1.2 CPA check

CPA must be in preset position before mating.

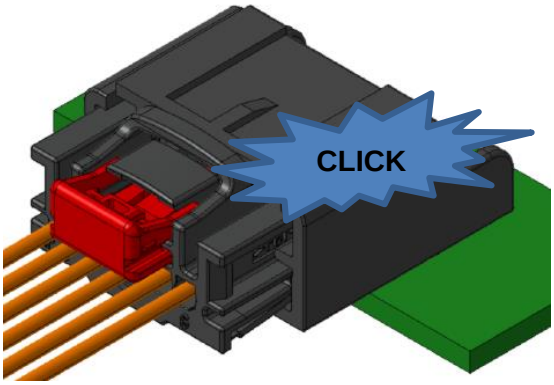
OK	NOK
	

4.2 Mating of female connector with header

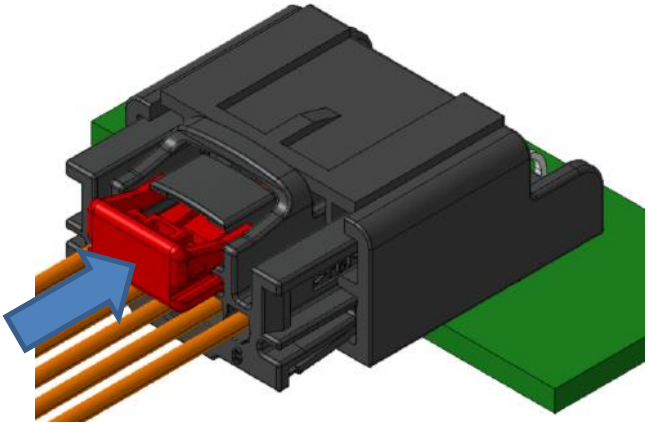
The pictures below are step by step showing mating process of female connector on header.

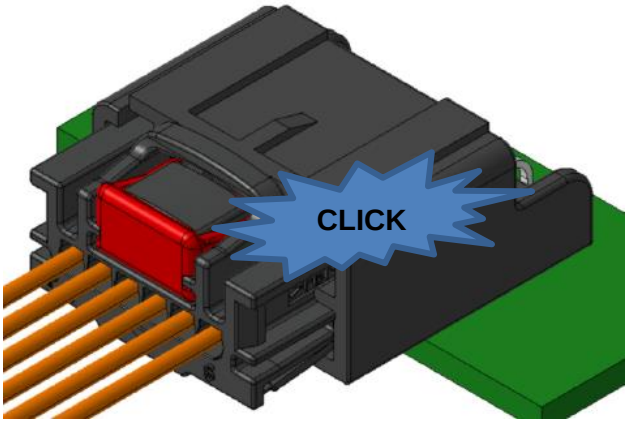


Header is soldered to PCB. Female connector must be filled with appropriate terminals, and checked as defined in chapter 4.1.



Align female connector with header interface . Push female connector in mating direction. Insert female connector in header and push it until click sound is heard.





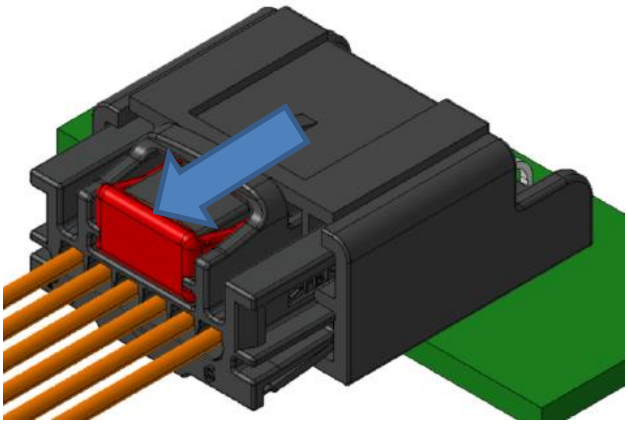
To finish mating push the CPA in set position.

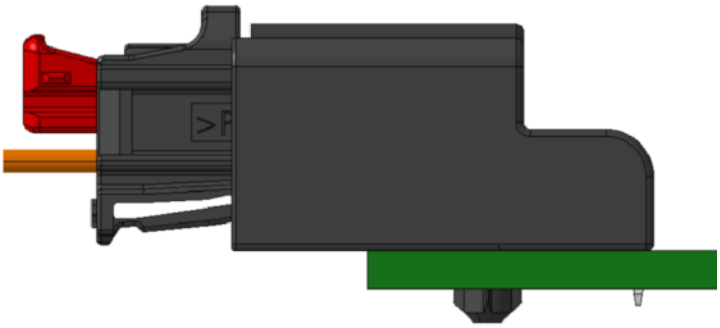
Precautions:

- If connector cannot be mated smoothly stop mating and check all included parts.
- Do not wrench when mating the connector.
- Do not mate by pushing the locking of the housing.
- If CPA cannot be pushed in set position stop mating and check all included parts.

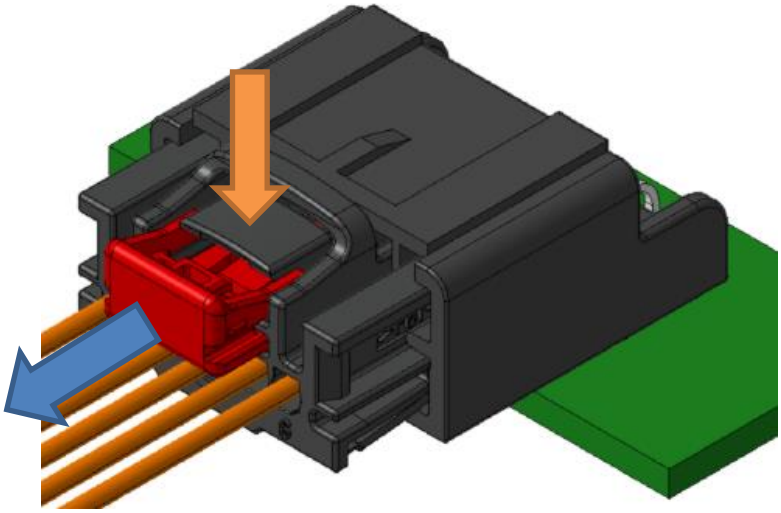
4.3 Unmating of female connector from header

The following pictures are showing step by step unmating process of female connector from header.





To enable unmating it is necessary to push CPA in direction of the arrow to preset position.



When the CPA is in preset position unmating can be done. Press the lock of female connector, and while it is pressed pull the connector out.

Precautions:

- To avoid damages do not unmate female connector by pulling the wires.

5 Service

5.1 Serviceable parts

There are no serviceable parts on the Header.

6 PCB Thickness and Soldering Temperature

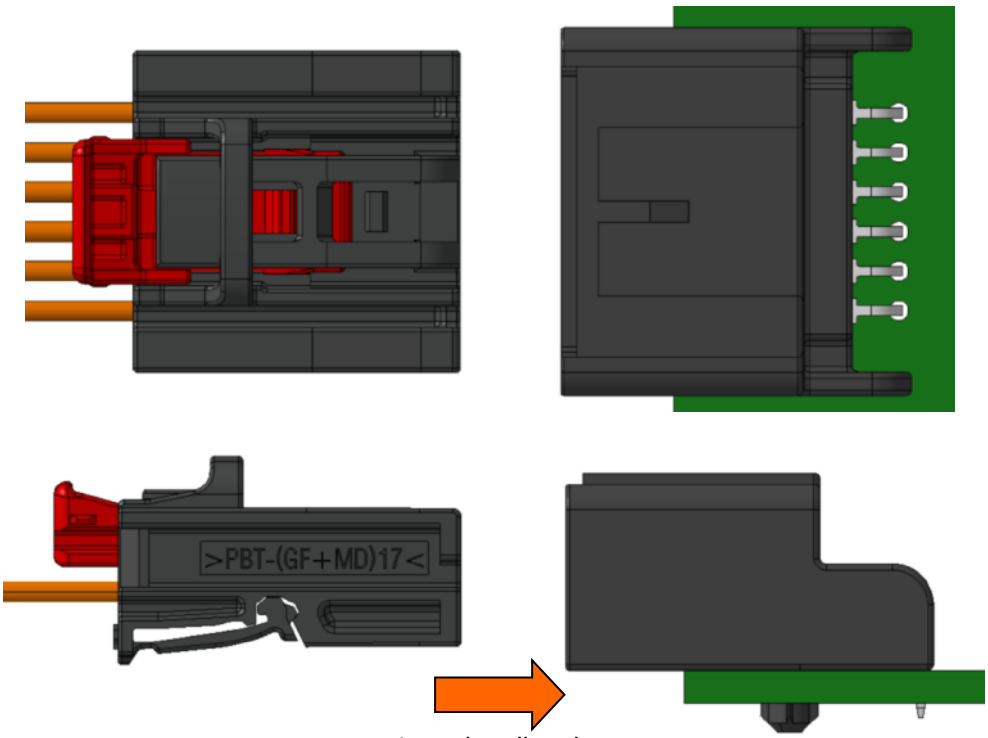
Thickness of the PCB which should be used is 1.6 ± 0.16 mm.

Soldering process to be applied up to maximum temperature of 260°C.

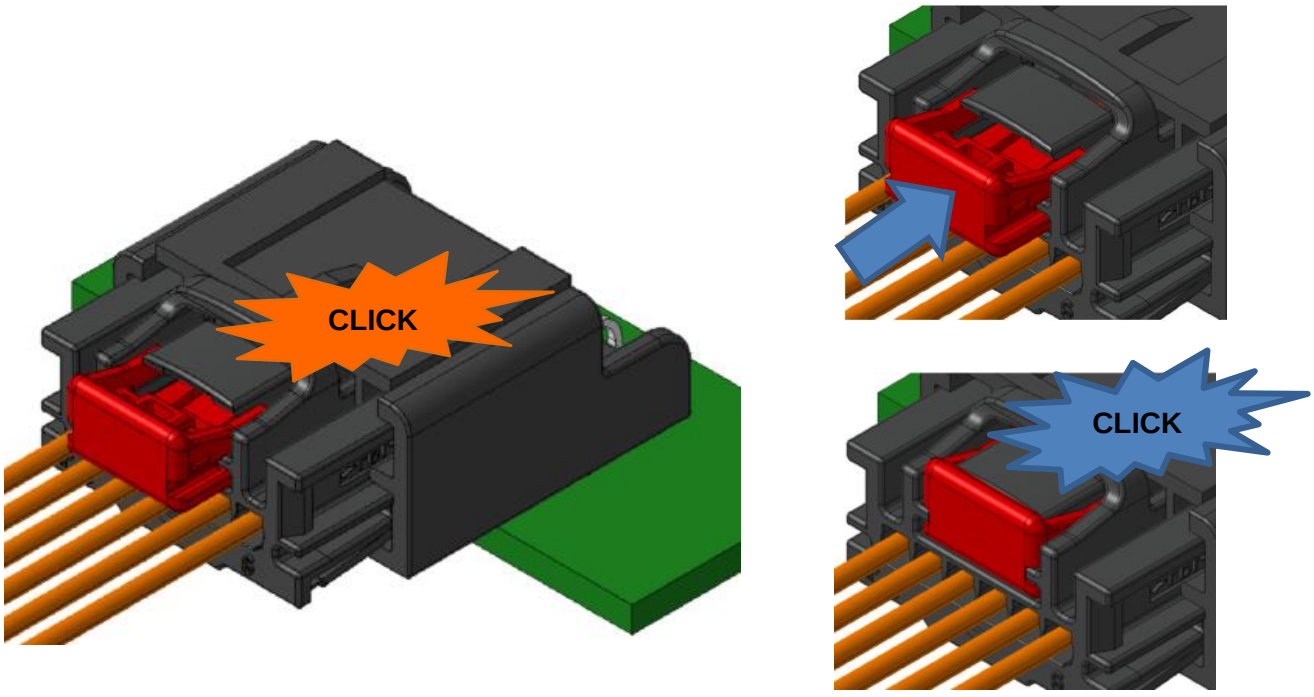
7 Appendix

7.1 Mating of the header with female connector

Position of female connector in line with header

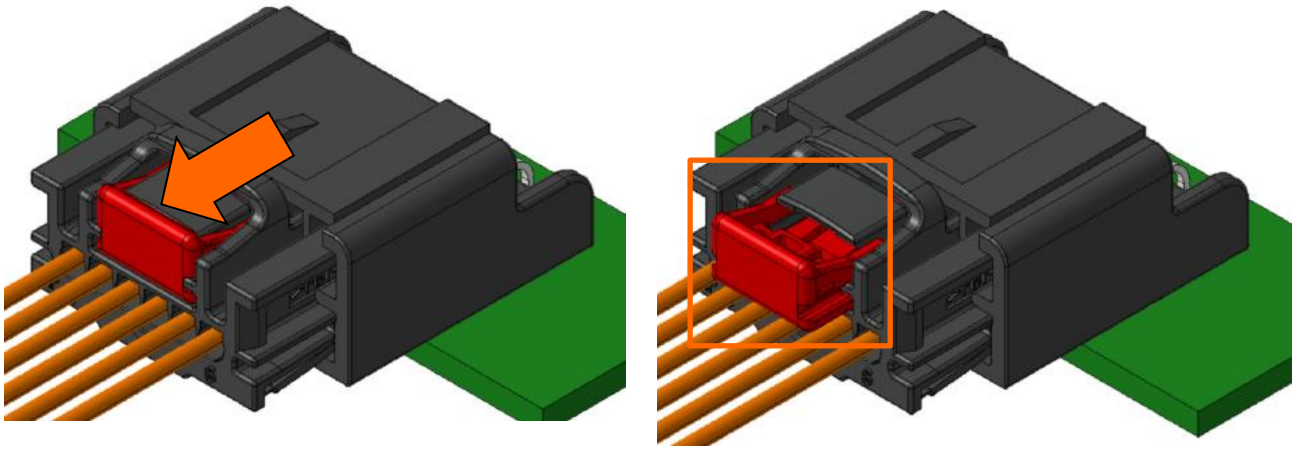


Push the connector until an audible “CLICK” sound is heard.
Push the CPA until click sound is heard.



7.2 Unmating of the female connector from the interface

Unlock the CPA.
Push the CPA in arrow direction to preset position.



Pull the female connector in arrow direction while the lock is pressed.