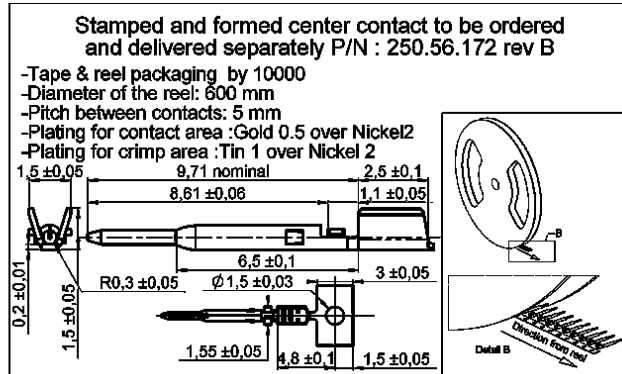
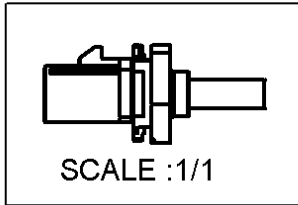
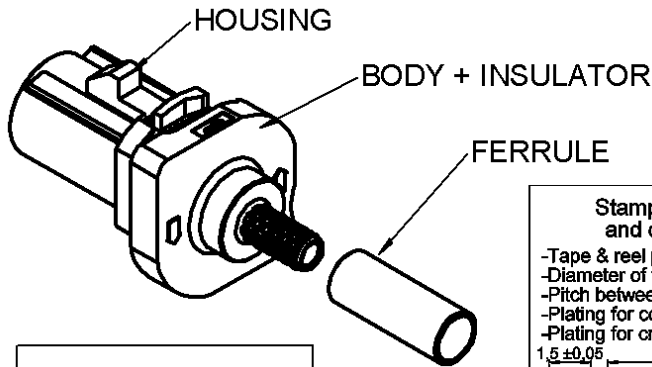
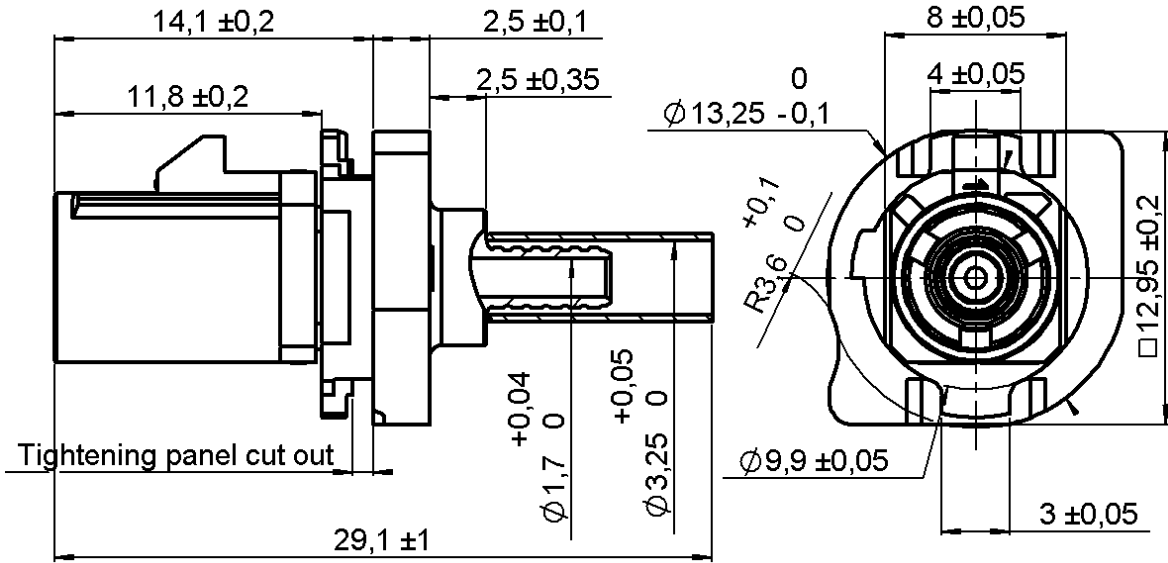


**TWIST AND LOCK CONNECTOR**  
**ONLY FOR 1 MM PANEL CUT OUT**

**R197.134.A30**

Series : **SMB**  
**CARLOCK**



All dimensions are in mm.

COMPONENTS	MATERIALS	PLATING	(µm)
BODY	DIE CASTED	NICKEL 2 OVER COPPER 8	
CENTER CONTACT	BRONZE	SELECTIVE GOLD+ SELECTIVE TIN	
OUTER CONTACT	-	-	
INSULATOR	TPX		
GASKET	-		
OTHERS PARTS	BRASS	NICKEL 2	
-	-	UL CLASSIFICATION	COLOR
HOUSING	PA4.6 GF30 (POLYAMIDE)	UL 94 V-2	BLACK (RAL9005)

**Remark :** Connection interface according to FAKRA specifications.

Issue : 0648 B

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**TWIST AND LOCK CONNECTOR**  
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**CARLOCK**

**PACKAGING**

Standard	Unit	Other
<b>100</b>	<b>'W' option</b>	<b>Contact us</b>

**SPECIFICATION**

**QS9000**

**ELECTRICAL CHARACTERISTICS**

Impedance	<b>50</b>	$\Omega$
Frequency	<b>0-4</b>	GHz
VSWR	<b>1.27 + 0,0000</b>	x F(GHz) Maxi
Insertion loss	<b>0.5</b>	$\sqrt{F(GHz)}$ dB Maxi
RF leakage	<b>NA</b>	- F(GHz)) dB Maxi
Voltage rating	<b>335</b>	Veff Maxi
Dielectric withstanding voltage	<b>1000</b>	Veff mini
Insulation resistance	<b>1000</b>	M $\Omega$ mini

**ENVIRONMENTAL**

Operating temperature	<b>-40/+110*</b>	$^{\circ}C$
Hermetic seal	<b>NA</b>	Atm.cm3/s
Panel leakage	<b>NA</b>	

**OTHER CHARACTERISTICS**

Assembly instruction **Pages 3 to 8**

Others :  
 \* Depends on the cable used.

**CABLE ASSEMBLY**

Stripping	a	b	c	d	e	f
mm	3.60	5.50	13.9	0.00	10.3	0.00

Cable retention

- pull off	<b>RG174</b>	<b>60</b>	N mini
	<b>RG316</b>	<b>110</b>	N mini
- torque		<b>NA</b>	N.cm

**TOOLING**

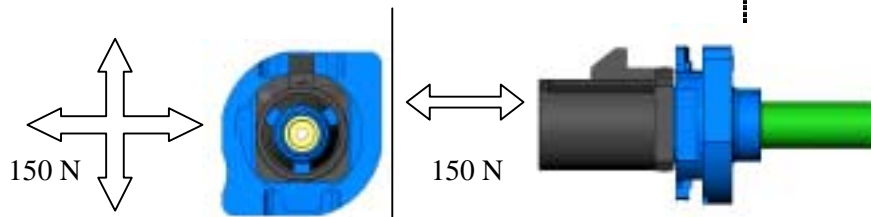
Part Number	Description	Hexagon
R282.235.915	CRIMPING DIES	3.25 (x2)
R282.293.000	CRIMPING TOOL	

**MECHANICAL CHARACTERISTICS**

Center contact retention	
Axial force – Mating end	<b>20</b> N mini
Axial force – Opposite end	<b>10</b> N mini
Torque	<b>NA</b> N.cm mini
Assembling Torque : max.	0.90 Nm
Dissambling Torque : >	0.3 Nm
Push/Pull force into the panel :	mini 150 Nm
Engagement force :	25 N max
Disengagement force :	2 N min

Mating life	<b>50</b> Cycles mini
Weight	<b>5,04004.</b> g

After assembly on the radio the FAKRA connector must be able to resist to :



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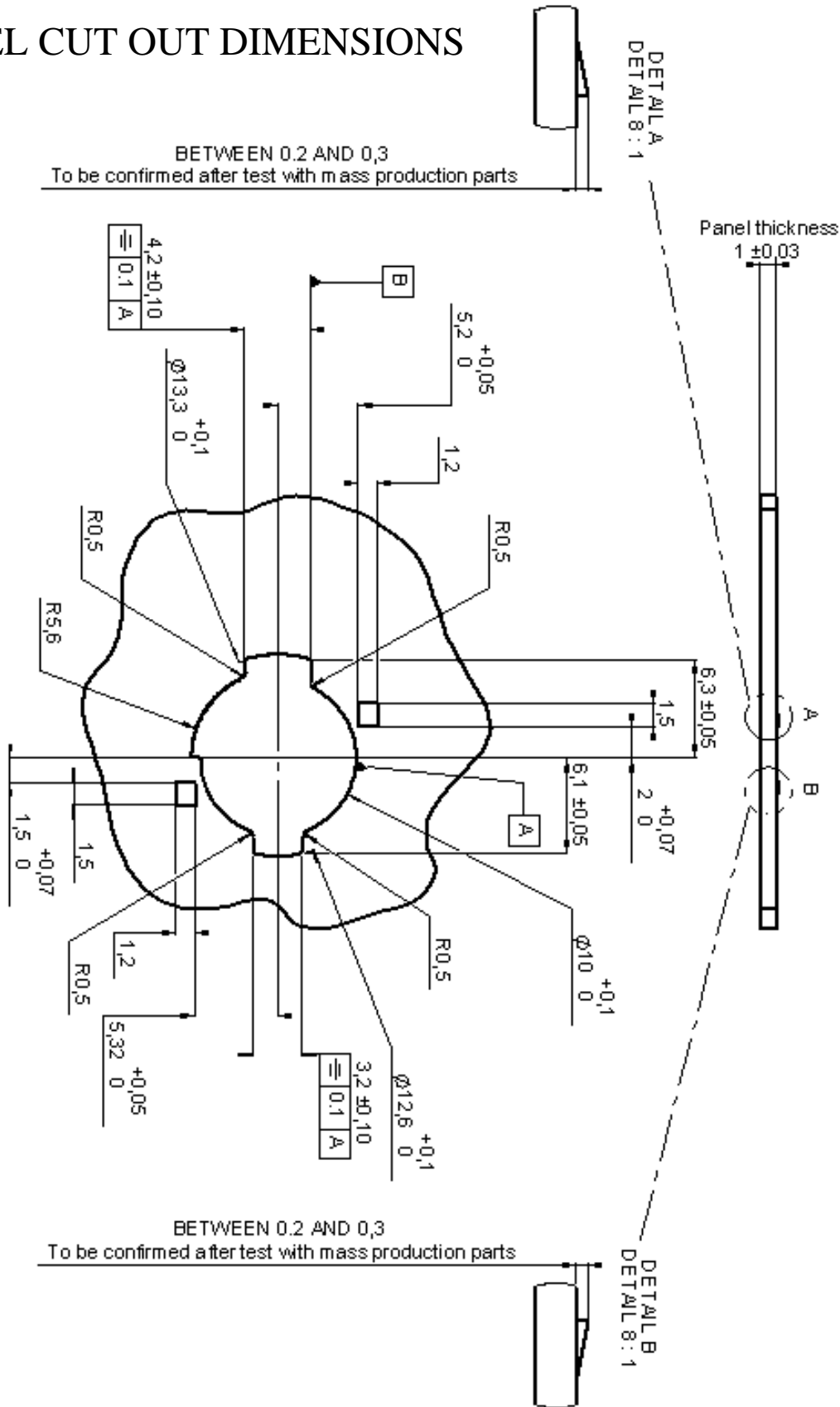


**TWIST AND LOCK CONNECTOR**  
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**CARLOCK**

**PANEL CUT OUT DIMENSIONS**



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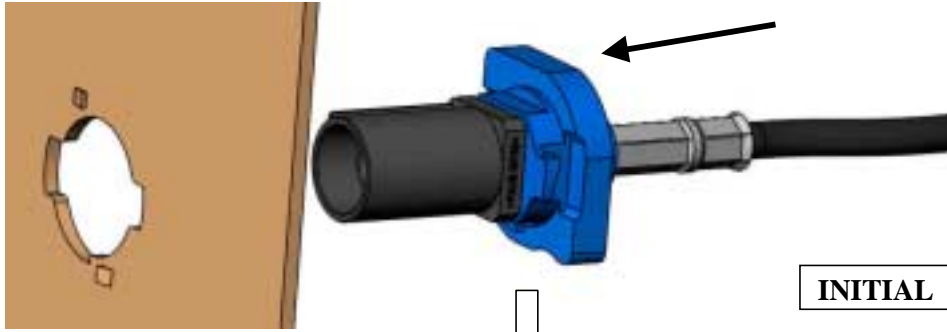


**TWIST AND LOCK CONNECTOR**  
**ONLY FOR 1 MM PANEL CUT OUT**

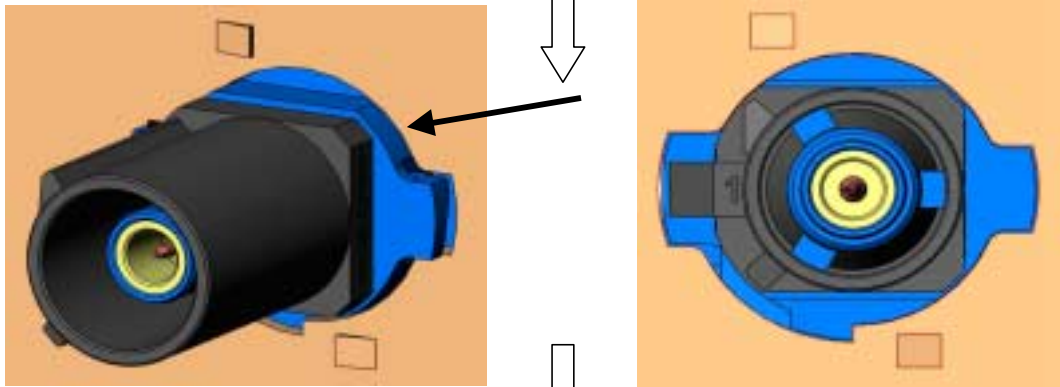
**R197.134.A30**

Series : SMB  
CARLOCK

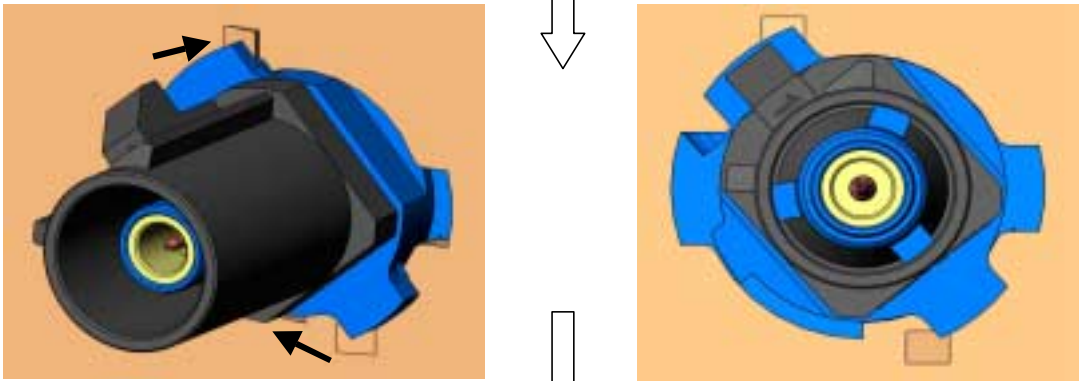
**MOUNTING  
PROCEDURE**



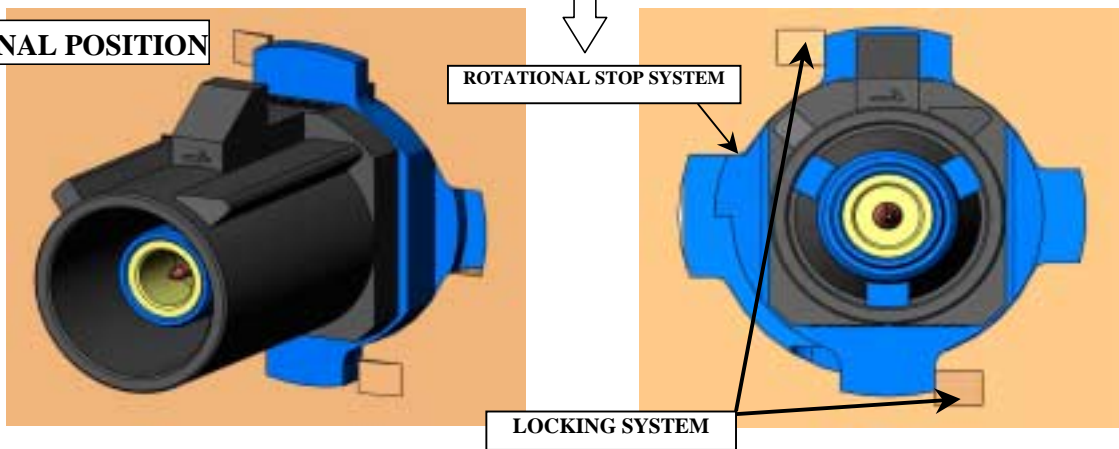
**INSERTION**



**ROTATION**



**LOCKING-FINAL POSITION**



Issue : 0648 B

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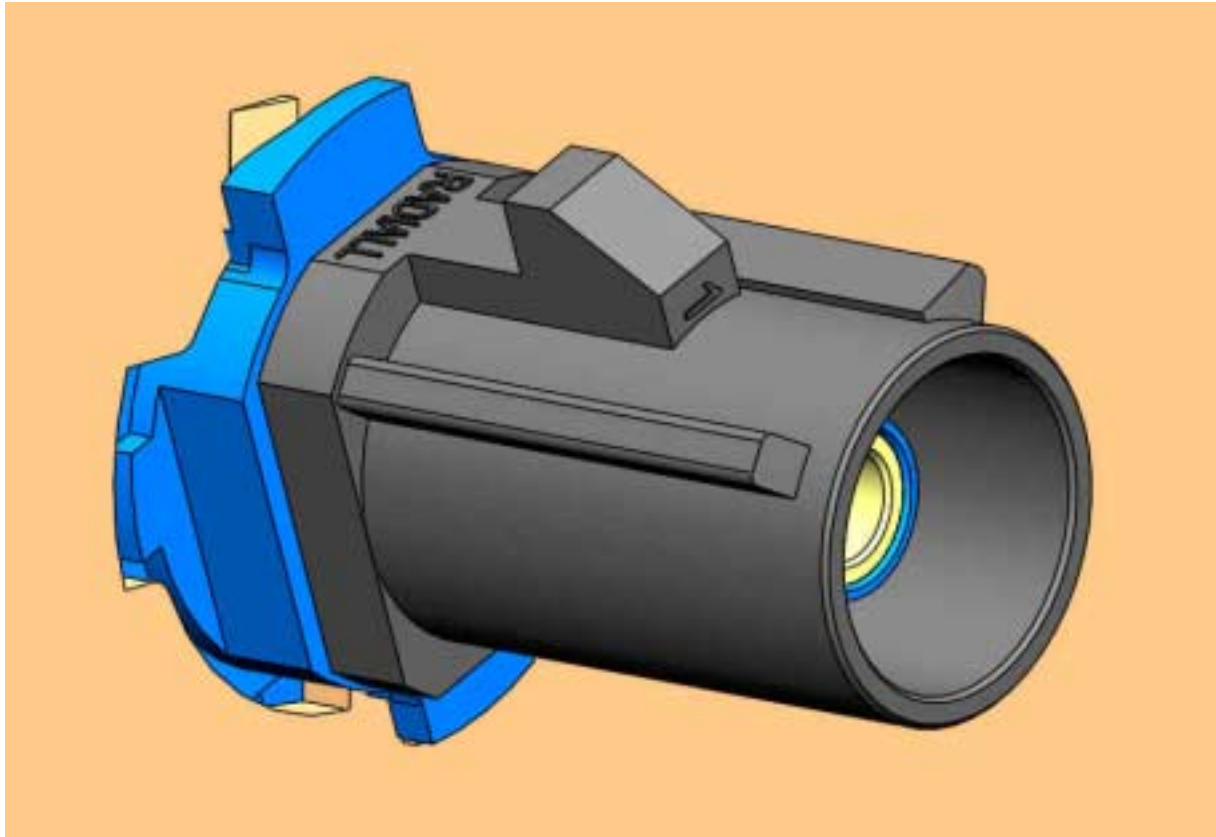


**TWIST AND LOCK CONNECTOR**  
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**R197.134.A30**

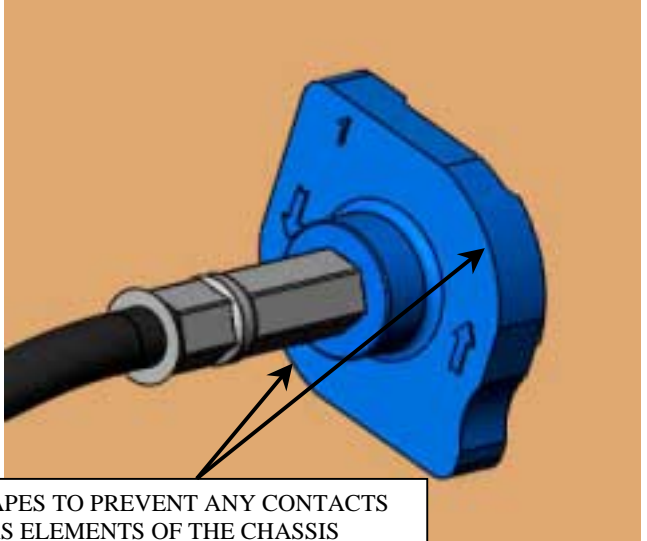
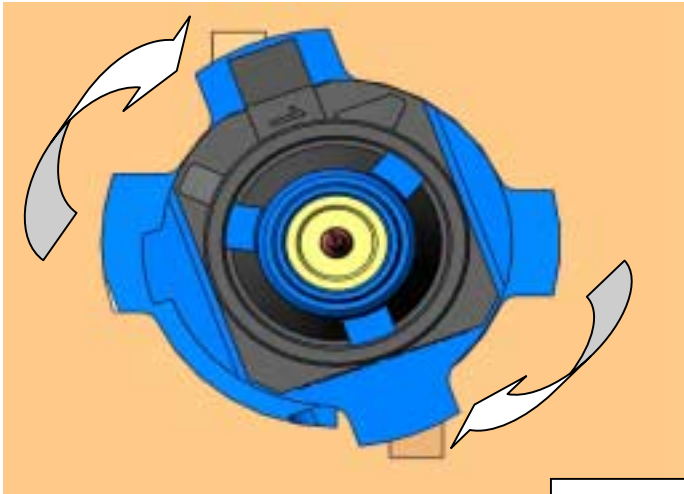
Series : SMB  
 CARLOCK

**DETAILS VIEW DURING THE ROTATION**



**FRONT VIEW**

**BACK VIEW**



ROUNDS SHAPES TO PREVENT ANY CONTACTS WITH OTHERS ELEMENTS OF THE CHASSIS DURING THE ROTATION OF THE CONNECTOR

Issue : 0648 B

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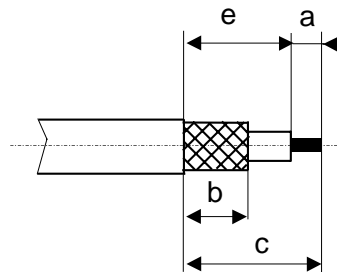
**TWIST AND LOCK CONNECTOR**  
**ONLY FOR 1 MM PANEL CUT OUT**

**R197.134.A30**

Series : SMB  
 CARLOCK

**RECOMMENDED MOUNTING PROCEDURE**

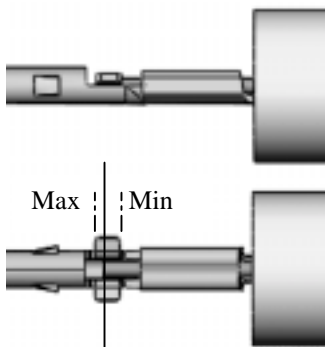
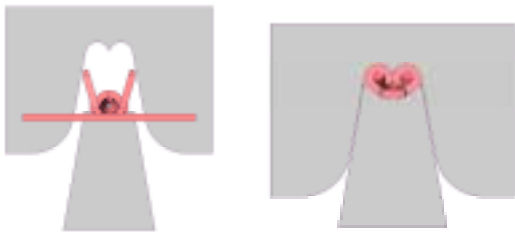
**1**



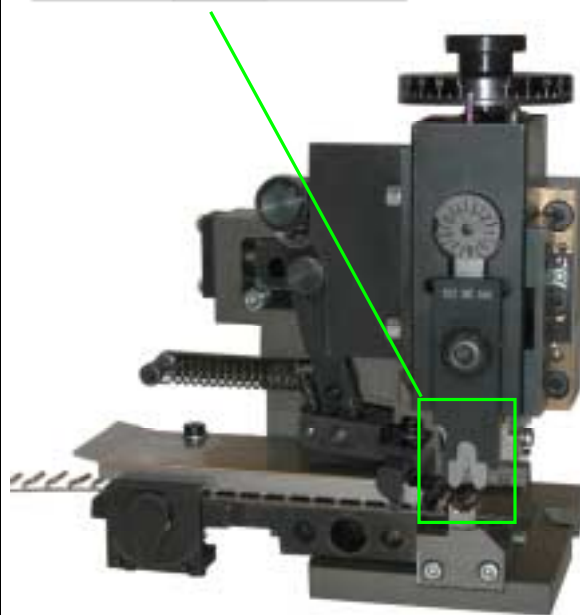
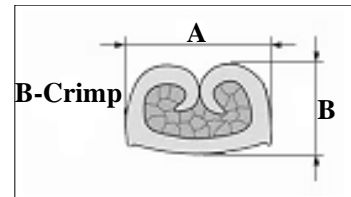
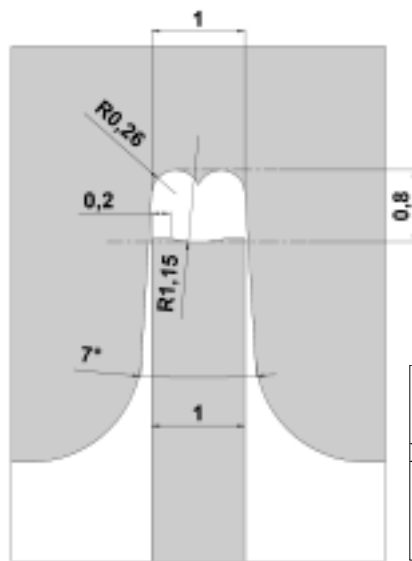
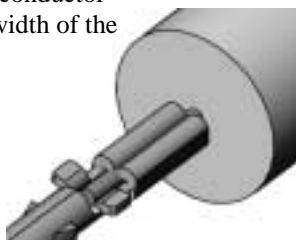
• Strip the cable

**2**

- Crimp the centre contact with crimping dies as described ,using standard mini applicator.
- check the crimping height  $B=0.8 \pm 0.03$  and the crimping width  $A=1 \pm 0.05$  of the center contact.



Visual checking  
 The tip of the cable conductor must be within the width of the positive stop tap.



Mini applicator

Issue : 0648 B

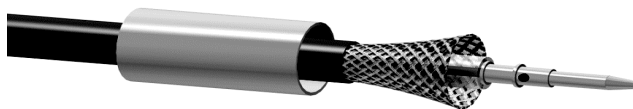
In the effort to improve our products, we reserve the right to make changes judged to be necessary.



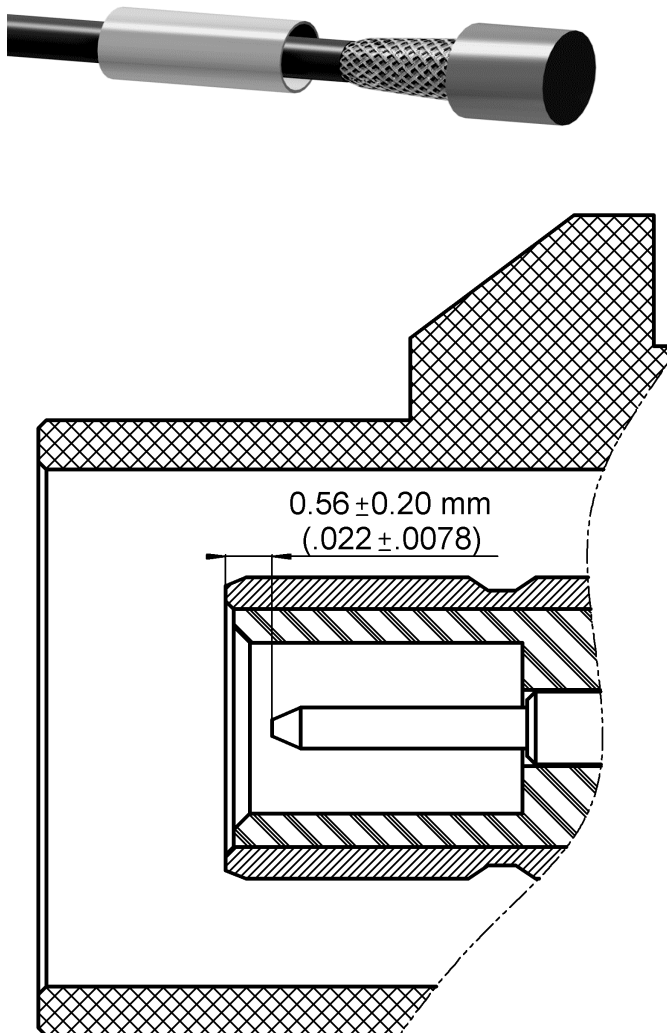
**TWIST AND LOCK CONNECTOR**  
**ONLY FOR 1 MM PANEL CUT OUT**

**R197.134.A30**Series : **SMB**  
**CARLOCK****RECOMMENDED MOUNTING PROCEDURE****3**

- Slide the ferrule
- Fan the braid

**4**

- Insert gently the center contact into the insulator ; Be cautious you must feel first a force detente corresponding to the center contact barb insertion, and a second force stage corresponding to the center contact reaching its final location. Do not apply an excessive force on the center contact in order to avoid bad interface. A correct insertion force must lead to the interface dimension compliance.
- Check the position of the center contact between the top of the insulator and the top of the center contact :  $0.56 \pm 0.2$ .



Issue : 0648 B

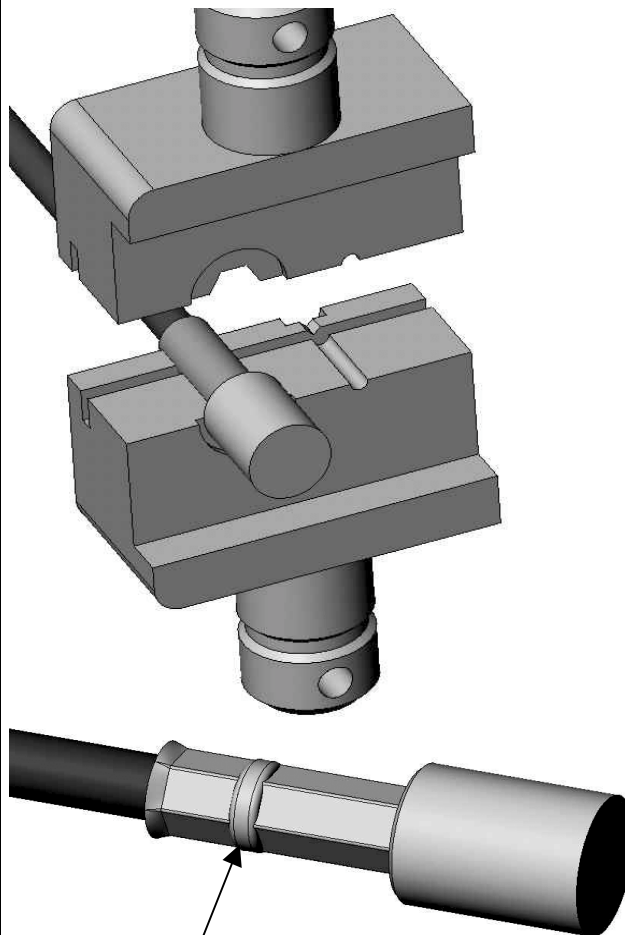
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**TWIST AND LOCK CONNECTOR**  
**ONLY FOR 1 MM PANEL CUT OUT**

**R197.134.A30**Series : **SMB**  
**CARLOCK****RECOMMENDED MOUNTING PROCEDURE****5**

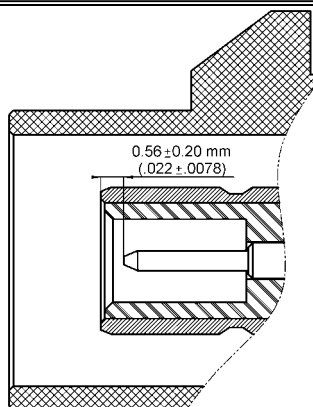
- Slide the ferrule over the braid
- Crimp the ferrule as shown on this picture with crimping tool  
R282.293.000 (M22520/5-01) + dies  
R282.235.915 (Double crimping Hex 3.25).



Right tool orientation : (OPTION)  
after crimping the bump must be closer to the cable  
than to the body

**6**

- Check the position of the center contact between the top of the body and the top of the center contact :  $0.56 \pm 0.20$ .

**Issue : 0648 B**

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