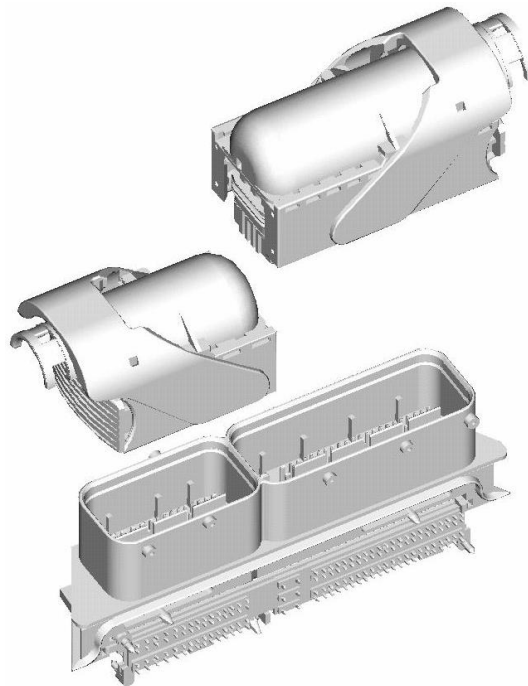



# MODULAR CONNECTOR

## 154 (60+94) POSN., WATERPROOF

### *APPLICATION SPECIFICATION*

#### 114-101032-001 GENERAL



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LTR	REVISION RECORD	DR	DATE					

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**MODULAR CONNECTOR 154 (60+94) POSN., WATERPROOF**

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**GENERAL**

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## 1. GENERAL

### 1.1. INTRODUCTION

The shown specification contains the guidelines, to handle the 60 and 94posn. socket housings of the 154posn. connector system. This connector system is used to connect two cable harnesses onto an electronic control unit. It consists of two cable-sided modules (60 and 94posn.) and of a 154posn. male connector on the side of the compound machinery.

### 1.2. BEING VALID TE SPECIFICATIONS

114-18304-002	Interface drawing
114-18387	Application Specification for the AMP MCP <sup>1</sup> 2.8K contact system
114-18021	Application Specification for the MQS <sup>2</sup> contact system
108-18717	Product Specification for the AMP MCP 2.8K-contact system
108-18874	Product Specification for the MQS 2point contact system
108-18030	Product Specification for the MQS contact system
108-101360-001	Product Specification for the modular connector, 154posn. "general"

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<sup>1</sup> Multi Contact Point\*

<sup>2</sup> Micro Quadlock System\*

### 1.3. OVERVIEW DRAWING MANUALS

TITLING	DRAWING NO.
Pin header 154posn.	Interface drawing <b>114-18304-002</b>
Socket housing, 60posn.	<b>2278873</b>
Socket housing, 94posn.	<b>2278874</b>
Sealing plug 0.63mm	<b>1394871</b>
Sealing plug 1.5mm	<b>1394872</b>
Sealing plug 2.8mm	<b>828922</b>
MQS 2point CB <sup>3</sup> contact, wire size <sup>4</sup> 0.35-0.5mm <sup>2</sup>	<b>1534116</b>
MQS CB contact, wire size 0.35-0.5mm <sup>2</sup> / 0.5-0.75mm <sup>2</sup>	<b>968220 / 968221</b>
MQS 1.5mm CB contact, wire size 0.75-1.5mm <sup>2</sup>	<b>1241608</b>
AMP MCP2.8K*, EDS <sup>5</sup> , wire size 0.5-1mm <sup>2</sup>	<b>1241394</b>
AMP MCP2.8K, EDS, wire size >1-2.5mm <sup>2</sup>	<b>1241396</b>
Single-conductor seal for AMP MCP2.8K	<b>963292, 963293, 963294</b>

## 2. MOUNTING OF THE SOCKET HOUSING

### 2.1. PRE-ASSEMBLY SOCKET HOUSING

The contacts (1), with wires connected, are pushed through the seal into the chambers until they lock into position (see Figure 1). The geometry of the seal holders (2) ensures correct orientation of the contacts during insertion. The contacts must be pushed vertically into the chambers, canting of the contacts heightens the loading force and also can damage parts (for example the contacts). For warranty of water proof, the non-loaded cavities must be occupied with sealing plugs (3 and 3a).

First the housings have to be equipped with sealing plugs or with the sealing plate. Then the chambers 1 to 5 and 46 to 50 have to be loaded with contacts. The remaining contacts can be loaded with any sequence, preferably first the contacts with the smallest wire size.

Prefer loading sequence of the 60posn. housing:

- 1.) Sealing plugs 1394871-1, 1394872-1
- 2.) 1.5mm contacts
  - First the outside rows from the outside (chamber 1,2, ... respective 15, ... and 46,47. ... respective 60) to the inside.
  - Then the inside rows from the outside (chamber 16,17, ... respective 30, ... and 31,32, ... respective 45) to the inside.
- 3.) 0.63mm contacts

After the complete loading, the secondary locks (4) must be displaced and locked. It will be possible without larger energy involved (<10N). If the secondary locks are clamped, the position of the contacts must be checked and corrected (contact not rested). For mounting the optional lever (5), the slide (6) must be extracted into pre-locked-position (as shown in figure 1) and then the lever must be pushed from top into the duct (C). It must be observed that on both sides the bolt (B) is in the duct (C). With pressure to the lower bolt the lever must be rested with the slide. The cover cap (7) is then suspended and rested. Assure that the cable exit shows in the right direction and the cover is in both ducts (A). The cables must be secured with a cable tie. Ensure that the lock of the cable tie does not hinder the movement of the slide and the lever (7a).

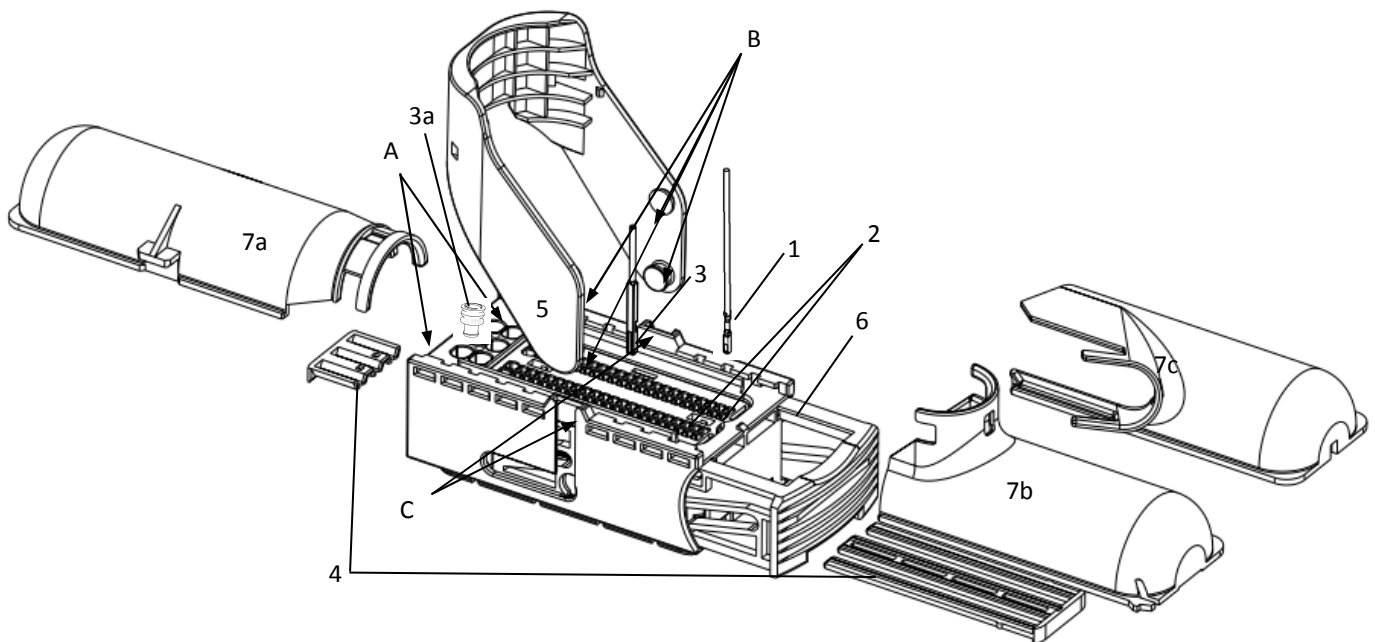


Figure 1

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 MODULAR ASSEMBLED SOCKET HOUSING
 

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### 3. DISASSEMBLY

#### 3.1. COVER

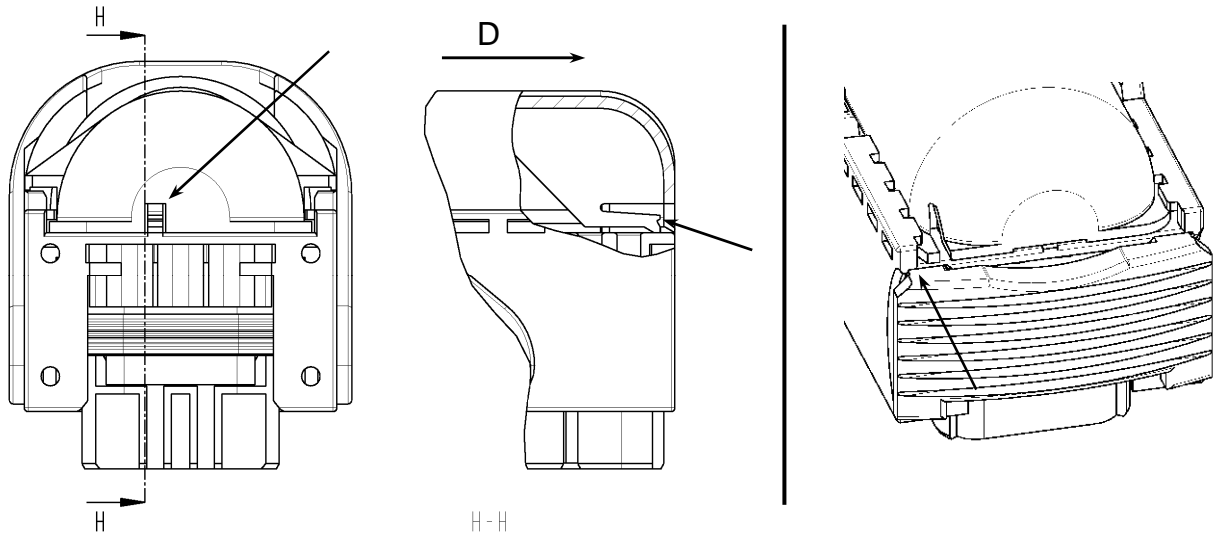


Figure 2

The cover must be unlocked with a screwdriver 1.8x0.3 by excursion the locking hook as shown (Figure 2) and then it must be relocated along direction D from the housing. Two versions of locking hooks exist, showed in Figure 2, left and right.

#### 3.2. CONTACTS AND SEALING PLUG

##### 3.2.1. MCP CONTACTS

Remove the secondary lock by inserting a screwdriver 1.8x0.3 in the slot provided and levering the secondary lock out of the housing (Figure 3 Point E). The contacts are released from the front with the extraction tool PN 1-1579007-2 by levering out the locking hook beside the pin opening (Figure 4 and 5) and then pushed out of the chamber. During this the cable must be pulled with small force.

### 3.2.2. CLEAN BODY (CB) CONTACTS

Remove the secondary lock by inserting a screwdriver 1.8x0.4 in the slot provided and levering the secondary lock out of the housing (Figure 3 Point F). The contacts are released from the front with the extraction tool PN 1-1579018-4 by levering out the locking hook beside the pin opening (Figure 4 and 5) and then pulled out of the chamber. During this the cable must be pulled with small force.

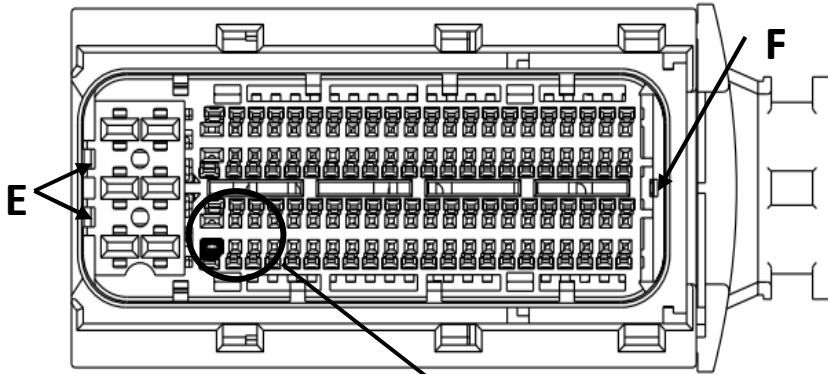


Figure 3

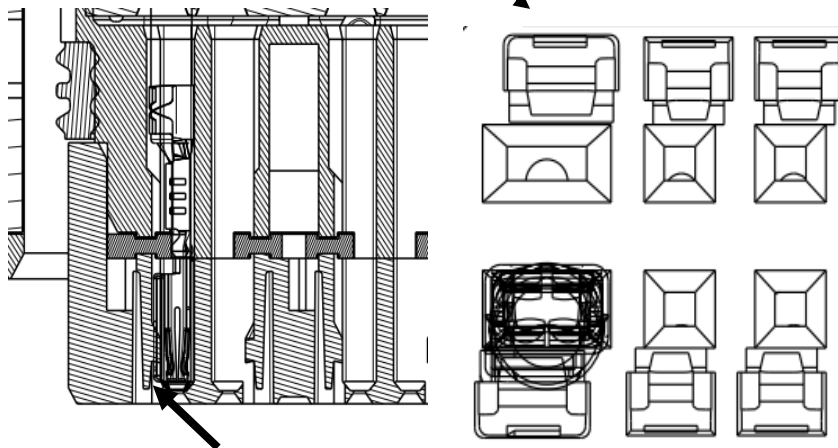


Figure 4

Figure 5

### 3.2.3. SEALING PLUG

The sealing plugs get out of the housing, after take away the secondary lock (for example with a small flat nose pliers).