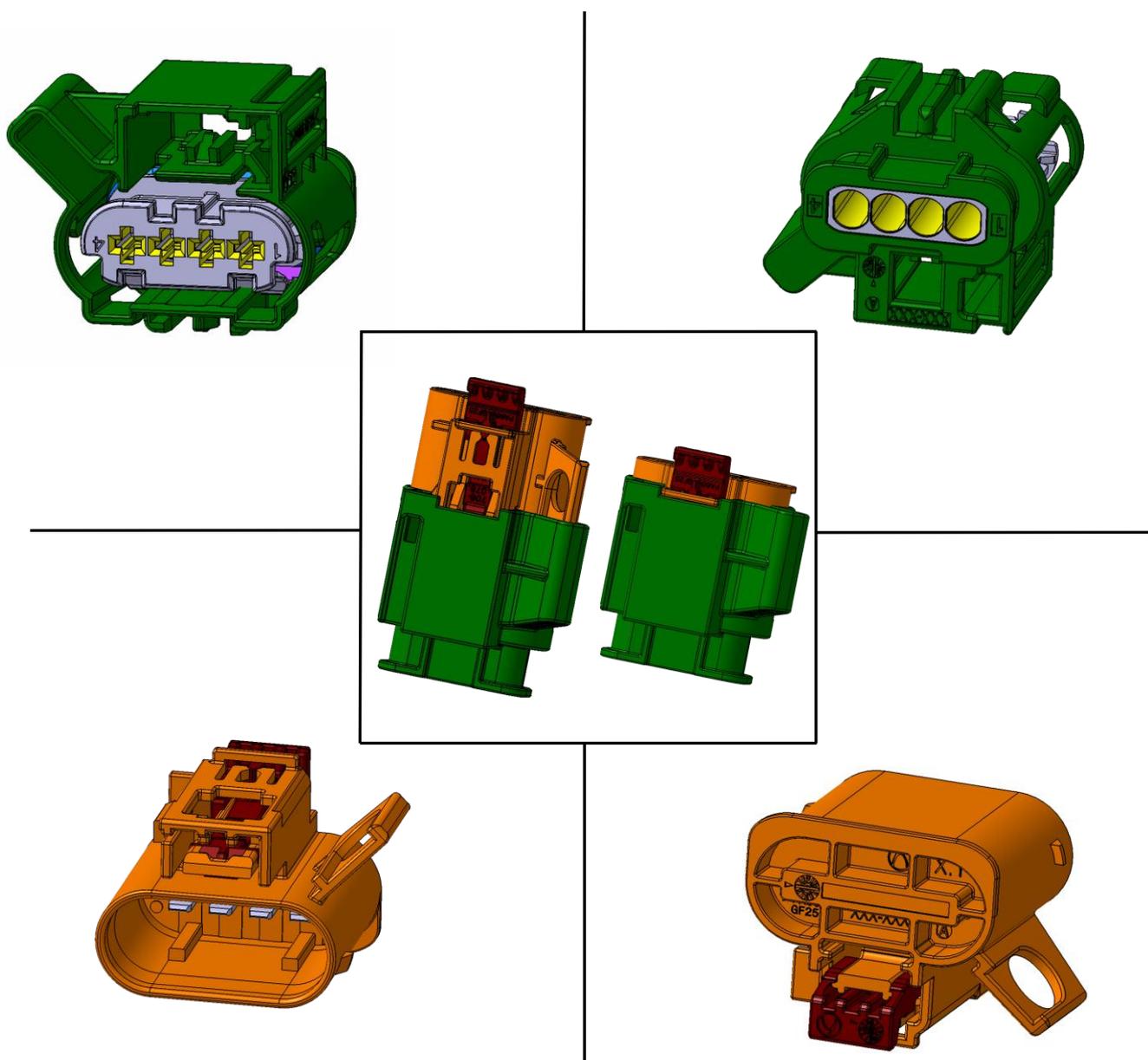




HIRSCHMANN  
AUTOMOTIVE

# Product Specification

## HV Shutdown Device



EPS-100104-00  
Issue May 2024

## 1. Table of contents

<b>1. Table of contents .....</b>	<b>2</b>
<b>2. General.....</b>	<b>3</b>
2.1. Introduction.....	3
2.2. Applicable documents .....	3
<b>Technical characteristics .....</b>	<b>4</b>
2.3. Operating temperature.....	4
2.4. Tightness of Socket Pin Housings .....	4
2.5. Holding force of the 2.8 socket contacts in the socket housing .....	4
2.6. Holding force of the 2.8 short-circuit bridge in the bridge connector.....	4
2.7. Assembly and disassembly forces.....	4
2.8. Incorrect locking force to the matching socket housing at room temperature .....	4
2.9. Holding Force to the Matching Bushing Housing at Room Temperature .....	4
2.10. Contact System Characteristics.....	4
<b>3. Delivery condition / product structure of the socket housing .....</b>	<b>5</b>
3.1. Delivery condition .....	5
3.2. Product structure .....	5
<b>4. Delivery condition / product structure of the pin housing .....</b>	<b>6</b>
4.1. Delivery condition .....	6
4.2. Product structure .....	6
<b>5. Tests carried out .....</b>	<b>7</b>
<b>6. Change.....</b>	<b>Error! Bookmark not defined.</b>



---

## **2. General**

### **2.1. Introduction**

This product specification is valid for all HV disconnect components listed in point 2.2 and contains the product structure, delivery condition, technical characteristics and the qualification tests carried out.

In the event of improper use deviating from this specification and resulting quality problems, there is no right of recourse.

### **2.2. Applicable documents**

Processing Specification	EVS-100104-00
Product Specification Tyco 108-18513	AMP MCP 2.8 09/2014 Rev B
Processing Specification Tyco 114-18148-0	AMP MCP 2.8 07/2013 Rev D
German standard DIN EN 60352-2	Solderless electrical connections Part 2: Crimp Connections
Test guideline LV 214	Working Group on Testing Guidelines for Motor Vehicles Connectors (as of 03/2010)
Customer Drawing 809-322-... 00 809-321-... 00 809-323-... 00	4-Pol 2.8 Socket housing 4-Pol 2.8 Plug housing ZB Stecker HV-Shut Down



---

## Technical characteristics

### 2.3. Operating temperature

Permissible temperature range for the plastic used:  
Temperature collective 2 according to LV124-2, 2013-08  
For part functionality, see DVP plan

### 2.4. Tightness of Socket Pin Housings

When using 2.8 contacts with ELA: **IP6K9K**  
The steam jet must not be directed directly at the unprotected SWS.

### 2.5. Holding force of the 2.8 socket contacts in the socket housing

The contact breakout force from the socket housing is  
 $F_{\text{Primär}} > 80\text{N}$  and  $F_{\text{Sekundär}} > 80\text{ N}$

### 2.6. Holding force of the 2.8 short-circuit bridge in the bridge connector

The holding force per short-circuit bridge is min. 70N

### 2.7. Assembly and disassembly forces

Max. initial mounting force from the pin housing to the receptacle housing is  $< 75\text{N}$ .  
A complete disassembly of the HV disconnect point is only possible after the first assembly by destroying the socket housing.

### 2.8. Incorrect locking force to the matching socket housing at room temperature

The mislocking force is min.  $150\text{N/v} = 30\text{mm/min}$

### 2.9. Holding Force to the Matching Bushing Housing at Room Temperature

The holding force to the matching bushing housing is min.  $150\text{N/v} = 30\text{mm/min}$

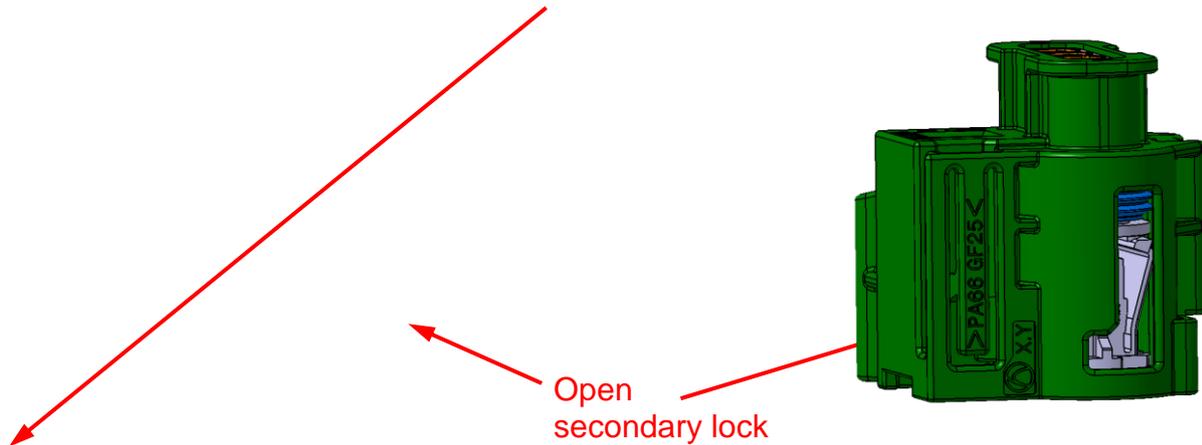
### 2.10. Contact System Characteristics

Max. permissible cable cross-section:  $2.5\text{ mm}^2$  with SWS

### 3. Delivery condition / product structure of the socket housing

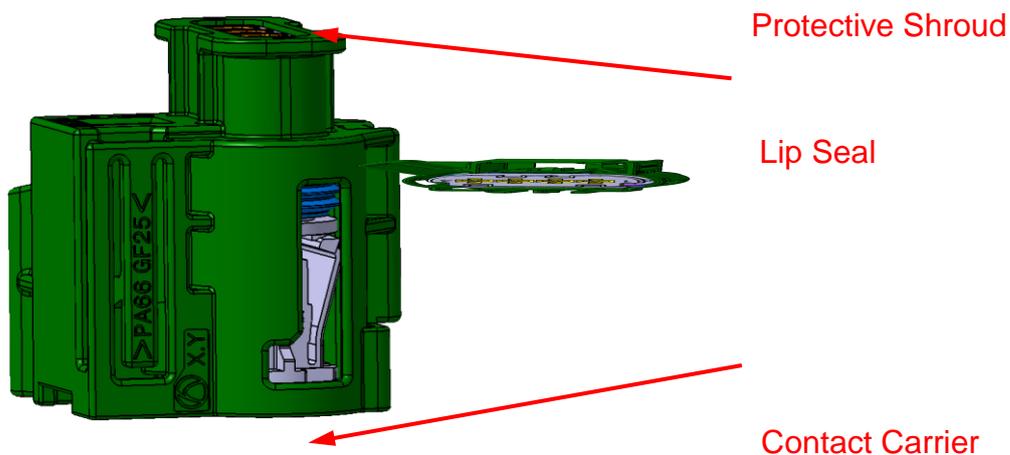
#### 3.1. Delivery condition

The socket housings are delivered in the shown condition, with an open secondary lock.



#### 3.2. Product structure

The socket housing of the HV disconnect point consisting of socket contact carrier, lip seal and protective shroud.

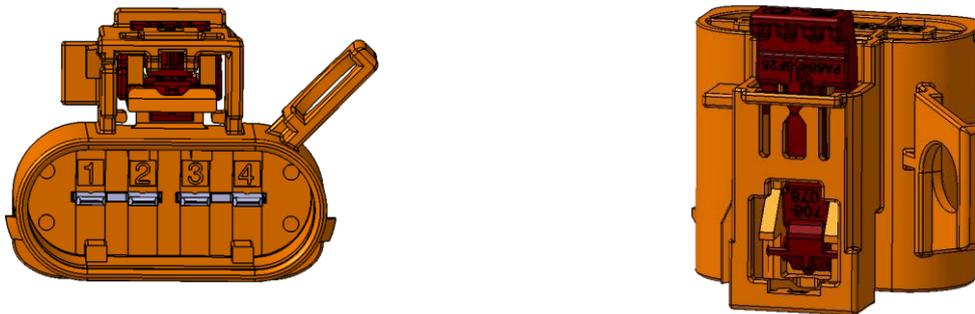




## 4. Delivery condition / product structure of the pin housing

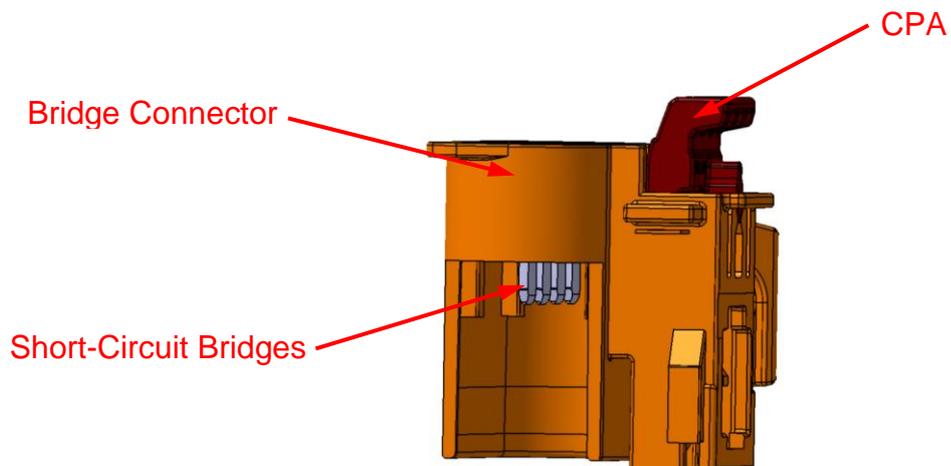
### 4.1. Delivery condition

The pin housing of the HV disconnect point is supplied with CPA in the pre-latching position.



### 4.2. Product structure

The pin housing of the HV disconnect point consisting of the bridge connector, 2 short-circuit bridges and CPA.





## 5. Holding force of the short-circuit bridge

<b>Hirschmann Automotive GmbH</b>	
<b>PG 0</b>	<b>Inspection of as-received condition</b>
<b>PG 1</b>	<b>Dimensions</b>
<b>PG 3</b>	<b>Material and surface analysis</b>
<b>PG 4</b>	<b>Short circuit test</b>
<b>PG 6</b>	<b>Interaction between contact and housing</b>
<b>PG 7</b>	<b>Handling and functional reliability of the enclosures</b>
<b>PG 8</b>	<b>Insertion and holding forces of the contact parts</b>
<b>PG 13</b>	<b>Housing influence on the derating</b>
<b>PG 17</b>	<b>Dynamic load</b>
<b>PG 20</b>	<b>Climatic load of the housing</b>
<b>PG 21</b>	<b>Long-term temperature aging</b>
<b>PG 23</b>	<b>Water leak tightness</b>
<b>PG 28</b>	<b>Locking noise</b>
<b>PG 29</b>	<b>Retention force of the blind plugs</b>
	<b>Holding force of the short-circuit bridge</b>

For detailed information on the tests carried out, see the DVP plan or in the respective test report.

## 6. Change

<b>Version</b>	<b>Änderung</b>	<b>Bearbeiter</b>
00	First edition	Walser