



## HDC Elevator Maintenance Box Series

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## 1. SCOPE

### 1.1. Content

This specification covers the performance, tests and quality standards for the elevator maintenance box of heavy duty connector series **H3A / H6B / H10B / H16B**.

### 1.2. Qualification

When tests are performed, the following specified specifications and standards shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

## 2. APPLICABLE DOCUMENTS

The following documents form part of this specification to the extent specified herein. In the case of a conflict between the requirements of this specification and the product drawing or of conflicts between the requirements of this specification and the referenced documents, this specification shall take precedence.

### 2.1. TE Connectivity Documents

#### A. Customer drawing and name

H3A / H6B / H10B / H16B elevator maintenance box series

### 2.2. Other Documents

- EN 61984: Connectors - Safety requirements and tests
- IEC 60068: Environmental testing
- IEC 60512: Connectors for electronic equipment -Test and measurements
- IEC 60529: Degrees of Protection Provided by Enclosures (IP Code)
- IEC 60664-1: Insulation coordination for equipment within low-voltage systems (Part 1)
- ISO 6988: Metallic and other non-organic coatings - Sulfur dioxide test with general condensation of moisture

## 3. REQUIREMENTS

### 3.1. Design and Construction

Product shall be of the design, construction and physical dimensions specified on the applicable product drawing.

### 3.2. Materials

Materials used in the construction of this product shall be as specified on the applicable product drawing.

### 3.3. Rated

- Rated Current / Voltage / Impulse Voltage / Pollution Degree

**Refer to the product specification of the inserts**

- Operation Temperature -40°C ~+125°C
- Protection Class II
- Overvoltage Category III

### 3.4. Performance and Test Description

Product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Paragraph 3.5. Unless otherwise specified, all tests shall be performed at ambient environmental conditions per IEC 60512 / EN 61984.

## 3.5. Test Requirements and Procedures Summary

The elevator maintenance box contains insert / housing / circuit board parts.

### For H3A series

The insert (HD-008-F) product specification refer to 108-137042

The housing product specification refer to 108-137012

### For HXXB series

The insert (HE-006-FS/ HE-010-FS/ HE-010-FSK/ HE-016-FS) product specification refer to 108-137044

The insert (HEE-010-F) product specification refer to 108-106137

The housing product specification refer to 108-137013

The elevator maintenance box assembly test requirements and procedures summary as following

<b>General</b>			
No.	Test Items	Requirements	Condition according to
3.5.1	Visual and dimensional examination	Meets requirements of product drawing	Visual and dimensional examination IEC 60512-1-1/-2, Test 1a and 1b 6.2 of EN 61984
<b>Electrical</b>			
3.5.2	Contact Resistance	Initial	Max.10mΩ
		Final	The change of contact resistance shall be no more than 50 % of the reference value or $\leq 10$ mΩ. The higher value is permissible
3.5.3	Dielectric Voltage Withstand Test	No flashover or breakdown of voltage 6.13 of EN 61984	Test current: 1A Measure points at the end of the termination Max three contacts per specimen plus protective earthing, if any IEC 60512-2-2 Test 2b  Impulse test voltage according to Table 8, applied three impulses of each polarity and interval of at least 1s between impulses. 7.3.12 of EN 61984

Number of Specimen as below table 1:

Table 1 - Number of Specimen		
Test	Description	Numbers & consist of
Group A	Electrical Test, Mated	3 pairs connectors with 2.5mm <sup>2</sup> wire
Note: For connector family of the same design and comparable size, test may be made only on that member of the family which represents the worst case for that test.		

### 3.6. Test Sequences

Test or Examination	Test Group
	A
	Test Sequence <sup>1)</sup>
Visual and dimensional examination	1,4
Contact Resistance	2
Dielectric Voltage Withstand Test	3

**Notes:**

1) Numbers indicate the sequence in which the tests are performed.

## 4. QUALITY ASSURANCE PROVISIONS

### 4.1. Qualification Testing

#### A. Specimen Selection

Specimens shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production.

#### B. Test Sequence

Specimens shall be tested in accordance with the paragraph 3.6 test sequence.

### 4.2. Requalification Testing

If changes significantly affecting form, fit or functions are made to the product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development/product, quality and reliability engineering.

### 4.3. Acceptance

Acceptance is based on verification that the product meets the requirements of paragraph 3.5. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. If product failure occurs, corrective action shall be taken and specimens resubmitted for



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qualification. Testing to confirm corrective action is required before re-submittal.

#### 4.4. Quality Conformance Inspection

The applicable quality inspection plan shall specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification. Bulk wire resistance shall be subtracted from resistance readings.