

## Weidmüller Works standard

Marking of important and special characteristics

WN700079

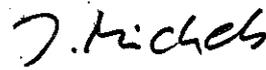
Version 01

Valid for:

Initiator / editor: Marko Höwing / Cord Hansmeier

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Signature:



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History:

Changes to version 00: complete revision, modified according the revised S\_007, marking of Q characteristics added, visualization in CATIA changed

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## 1. Aim of this WN

This works standard defines “important and special characteristics” and regulates the marking on drawings / in specifications.

## 2. Important and special characteristics

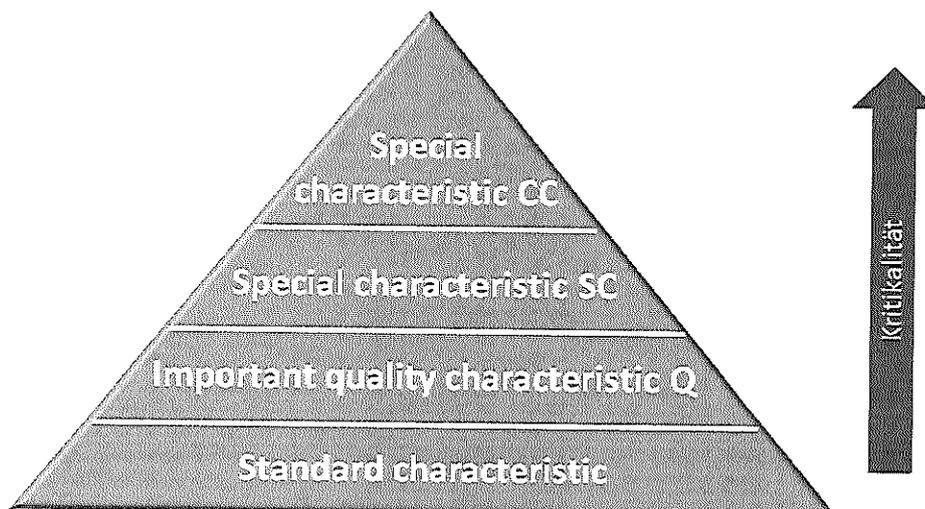
### 2.1 General

Product malfunctions / functional deviations have different severities and consequences. Product functions are realized by characteristics on piece parts and (sub-)assemblies. Deviations in characteristics may or may not lead to product malfunctions.

In order to find economically the best combination between the production process and necessary inspection characteristics, it is necessary to pay the right attention to the right characteristics.

Safety-relevant functions must be ensured under all circumstances and therefore be managed with significantly increased care.

Characteristics are classified as “special characteristics”, “important quality characteristics” and “standard characteristics”. The criticality increases as shown in the figure below.



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<p><b>Special characteristic SC / CC</b></p>	<p><b>Important quality characteristic Q</b></p>	<p><b>Standard characteristic</b></p>
<p>Impact on main functions of system / application or on safety functions of the product or on official regulations</p>	<p>Impact on main or secondary functions of the product</p>	<p>No significant impact on the main or secondary functions of the product</p>
<p>Monitoring and documentation are absolutely necessary</p>	<p>Monitoring and documentation is carried out in own interest</p>	<p>Monitoring through C sample approval or supplier ISIR and regular requalification</p>
<p>Target: 0 PPM</p>	<p>Target: Permissible failure rates must be agreed individually</p>	<p>Target: Permissible failure rates must be agreed individually</p>
<p>Evidence must be provided to external parties in the case of failures</p>	<p>No evidence to external parties is expected / required</p>	<p>No verification required in series production, only sampling inspection as part of requalification necessary</p>
<p>Special marking required in the manufacturing document, "SC" / "CC"</p>	<p>Special marking required in the manufacturing document, "Q"</p>	<p>No special marking in the manufacturing documentation</p>

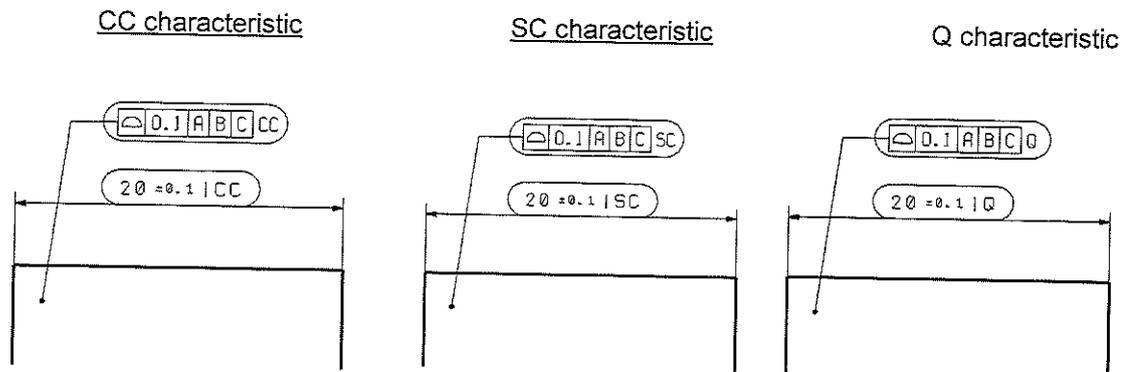
**2.2 Marking of important and special characteristics**

Q, SC and CC characteristics are marked in the form of two parallel lines with a semicircle at both ends and the suffix "Q", "SC" and "CC".

**The marking does not mean that the respective characteristic is subject to inspection. Only the control plan / inspection plan decides about the characteristics to be controlled in series production !**

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Remark:

In order to display the symbols correctly, the character set for the size measurement elements in Catia must be changed to "SSS2".

### 2.3 Control methods and requirements

The definition of the relevant inspection characteristics, the control method, the inspection frequency, the test equipment, ... for each characteristic is done only in the control plan / test plan.

It has to be considered that each manufacturing process has its own control plan / inspection plan. Depending on the used manufacturing technology and the process sequence, important and special characteristics can be secured by different methods.

Examples: automated production vs. hand assembly, CNC milling vs. standard lathe