

COMPARISON BETWEEN EN 45501:1992 AND THE PROPOSED NEW VERSION- prEN 45501: 2011

EN 45501: 1992		prEN 45501
T1 General Definitions		T1 General Definitions
T1.1- T.1.3.2		T1.1- T.1.3.2
T.2 Construction of an Instrument		T.2 Construction of an Instrument
T.2.1 – T.2.7.9		T.2.1 – T.2.9 now includes software definitions
T3 Metrological characteristics of an instrument		T3 Metrological characteristics of an instrument
T.3.1 – T.3.3		T3.1-T.3.5 now includes definition of type and family
T.4- Metrological Characteristics of an instrument		T.4- Metrological Characteristics of an instrument
T.4.1 – T.4.5		T.4.1 – T.4.6 now includes definition of final weight value
T.5 Indications and Errors		T.5 Indications and Errors
T.5.1 – T.5.5.7		T.5.1 – T.5.5.9 now includes definitions of Significant durability error and span stability
		T6 new section for Influences and reference conditions
		T7 new section for defining Performance Test
		T.8 Index of defined terms
		T9 Abbreviations and symbols
1 Scope		No significant changes except for addition of 2.5 which confirms status of "Terminology".
2. Principles of the Standard		
3. Metrological Requirements		
3.1 – 3.5.3.4		Examples added
3.5.4 – 3,5,5		Now in 3.10.2.1
3.6 – 3.9.1.2		No significant change, 3.9.1.2 clarified
3.9.2		Whole section -No change
3.9.3		Expanded to include battery and other power sources SIGNIFICANT CHANGE
3.9.4 – 3.9.5		No change
3.10		Expanded to include testing of modules and apportioning of errors
		3.10.3 and 3.10.4 added covering modules and families of instruments SIGNIFICANT CHANGE
4. Technical Requirements for self- or semi-self-indicating instruments		
4.1 – 4.1.2.6		4.1.2.4 Expanded to include Additional securing options and requirements
4.2 – 4.2.6.11		Minor textual amendments.
		Section 4.6.12 added "Examples of Indications of Weighing Results".
4.7- 4.11.4		Minor textual changes only
4.12		Omitted
4.13 – 4.14.9		Renumbered 4.12 – 4.13.9
		4.13.10 & 4.13.11 Added
4.15.		Renumbered as 4.14
4.15.1- 4.14.4.5		Renumbered 4.14.1- 4.14.4.5

4.15.5		Omitted
4.16		Renumbered as 4.15
4.17		Renumbered as 4.16
		SIGNIFICANT CHANGE; NEW SECTIONS ADDED 4.17, 4.18, 4.19. 4.20 (Mechanical counting instruments with unit weight receptors; additional technical requirements for mobile instruments,, portable instruments for weighing road vehicles; Modes of operation.)
5 Technical requirements for electronic instruments.		
5.1 – 5.3.6.3		Minor terminology changes only
5.3.7		Moved – see 3.9.3
5.4- 5.4.4		5.4.3 Expanded to include Surge testing and additional EMC testing for instruments powered from a road vehicle power supply SIGNIFICANT CHANGE
		5.5 Complete new section – Additional requirements for software controlled electronic devices SIGNIFICANT CHANGE
6 Technical requirements for non-self-indicating instruments		
6.1 – 6.9.7		6.1 – 6.9.7 Unchanged except for minor variations in terminology
7. Marking of an Instrument		
7.1- 7.1.4.2		7.1 – 7.1.5.2 Expanded and extended to include additional markings on instruments and markings for modules and peripherals SIGNIFICANT CHANGE
7.2.1 -7.2.2		7.2 Now combined into one clause and extended to cover additional guidance and acceptable solutions
7.3		Moved to 7.1.3
Certification Procedure	8	Metrological Control
8.1		8.1- 8.2.2 – Expanded to include documentation requirements for submission, information on instruments not liable for type approval, method of type evaluation SIGNIFICANT CHANGE
8.2		8.3 Extended to include guidance on verification process, increase of checks regarding software on visual examination and marking and security requirements. SIGNIFICANT CHANGE
ANNEX A: Testing Procedures for non-automatic weighing instruments		
A.1 – A.6		A.1- A.6 Changed to cater for additional testing defined in requirements and to confirm reduction in verification testing, i.e, only one tare test, no discrimination test, one repeatability test. SIGNIFICANT CHANGE

ANNEX B: Additional tests for electronic instruments		
Preliminary Note and B1-B4		<p>Preliminary Notes and B1-B4</p> <p>Increase in testing requirements , including introduction of Surge testing, increase in immunity requirements to 10V/m for radiated field, testing for conducted rf, , additional EMC requirements for instruments powered from road vehicles.</p> <p>SIGNIFICANT CHANGE</p>
ANNEX C		
Test procedure for immunity to radiated radio-frequency electromagnetic fields		<p>Not Included.</p> <p>New Annex C deals with: “Testing and certification of indicators and analog data processing devices as modules of non-automatic weighing instruments”</p> <p>SIGNIFICANT CHANGE BASED ON WELMEC DOCUMENTS</p>
ANNEX D		
Not included		<p>New requirements for :</p> <p>“Testing and certification of digital data processing devices, terminals and digital displays as modules of non-automatic weighing instruments.”</p> <p>SIGNIFICANT CHANGE BASED ON WELMEC DOCUMENTS</p>
ANNEX E		
Not included		<p>New requirements for :</p> <p>“Testing and certification of weighing modules as modules of non-automatic weighing instruments”.</p> <p>SIGNIFICANT CHANGE BASED ON WELMEC DOCUMENTS</p>
ANNEX F		
Not included		<p>New requirement:</p> <p>“Compatibility checking of modules of non-automatic weighing instruments”.</p> <p>SIGNIFICANT CHANGE BASED ON WELMEC DOCUMENTS</p>
ANNEX G		
Not included		<p>New requirements:</p> <p>“Additional examinations and tests for software controlled digital devices and instruments”.</p> <p>SIGNIFICANT CHANGE BASED ON WELMEC DOCUMENTS</p>