

WATER METER STANDARDS

Training Course on
Pattern Approval and Verification of Water Meters – OIML R49
15 – 18 October 2019 at NMIM, Sepang, Malaysia

INTERNATIONAL
RECOMMENDATION

OIML R 49-1
Edition 2013 (E)

Water meters for cold potable water and hot water.

Part 1: Metrological and technical requirements

Compteurs d'eau potable froide et d'eau chaude.

Partie 1: Exigences métrologiques et techniques



ORGANISATION INTERNATIONALE
DE MÉTROLOGIE LÉGALE
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OF LEGAL METROLOGY



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International Standards

•Major International Standards:

- International Organization of Legal Metrology (OIML) *web: www.oiml.org*
 - OIML R49-1 Part 1 Metrological and technical requirements
 - OIML R49-2 Part 2 Test methods
 - OIML R49-3 Part 3 Test report format

- International Standards Organization (ISO) *web: www.iso.org*
 - ISO 4064 Part 1 Metrological and technical requirements
 - ISO 4064 Part 2 Test methods
 - ISO 4064 Part 3 Test report format
 - ISO 4064 Part 4 Non-metrological requirements not covered in ISO 4064 - 1
 - ISO 4064 Part 5 Installation requirements

- EC 51/2003 Legislation (MID)
 - Annex MI-001

International Standards

- Major International Standards (cont.):
 - o Comité Européen de Normalisation (CEN)
 - EN 14154-1
 - EN 14154-2
 - EN 14154-3
 - o American Water Works Association (AWWA)
 - AWWA C 700 (PD Meters)
 - AWWA C 701 (Turbine Meters)
 - AWWA C 702 (Compound Meters)
 - AWWA C 703 (Fire Service Meters)
 - AWWA C 708 (Multi-Jet Meters)
 - AWWA C 712 (Fluidic Oscillator Meters)
 - AWWA C 713 (Single-Jet Meters)
 - AWWA M6 (Meters- Selection, Installation, Testing and Maintenance)

National Standards

- Examples of National Standards:
 - NMI 49-1 (Australia)
 - NIST Handbook 44, Section 3.36 (USA)
 - BS 5728 (United Kingdom)
 - Draft Weights and Measures Regulation, Division XIV (Canada)
 - National Measurement Law (Japan)

CURRENT DEVELOPMENT

OIML R 49 VS ISO 4064

OIML R 49 Part 1 & 2 & 3: 2013

Was developed by a joint OIML/ISO/CEN working group comprising OIML TC 8/SC 5 *Water meters*, ISO/TC 30/SC 7 *Volume methods including water meters* and CEN/TC 9 *Water meters*.

The content is the same in substance as that of ISO 4064 Part 1-3: 2014 *Water meters for cold potable and hot water*.

- 3 Parts

ISO 4064 Part 1 & 2 & 3: 2014

Is identical to the corresponding edition of OIML R 49, which has been issued concurrently.

- 5 Parts

OIML R 49

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