

Annex to declaration of accreditation (scope of accreditation)
 Normative document: EN ISO/IEC 17025:2005
 Registration number: **L 029**

of **NMi Certin B.V.**

This annex is valid from: **02-10-2019** to **01-05-2020**

Replaces annex dated: **24-04-2019**

Location(s) where activities are performed under accreditation

Head Office

Thijssseweg 11
 2629 JA
 Delft
 The Netherlands

Location	Abbreviation/ location code
Thijssseweg 11 2629 JA Delft The Netherlands	De
On site	O

No.	Material or product	Type of activity ¹	Internal reference number	Location
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Measuring instruments for gas, liquid and electricity

a.	Water meters	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • EMC immunity 	In accordance with: Directive 2014/32/EU annex I, annex III MI-001 OIML R49 ISO 4064 Watermeters Welmec 7.2 Software Guide	De
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This annex has been approved by the Board of the Dutch Accreditation Council, on its behalf,

J.A.W.M. de Haas

¹ If there is a referral to a code starting with NAW, NAP, EA or IAF, this concerns a scheme mentioned on the [RvA-BR010-lijst](#).
 If no date or version number is mentioned for a normative document, the accreditation concerns the most current version of the document or scheme.

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No.	Material or product	Type of activity ¹	Internal reference number	Location
b.	Gas meters and volume conversion devices	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • External mechanical load • EMC immunity 	In accordance with: Directive 2014/32/EU annex I, annex III MI-002 OIML R137 OIML R140 EN 1359 EN 12261 EN 12405 EN 12480 EN 14236	De
c.	Electrical energy meters	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • External mechanical load • EMC immunity • Overload test 	In accordance with: Directive 2014/32/EU annex I, annex III MI-003 IEC 62052-11 IEC 62053-11/21/22/23/24 IEC 62055-31 SANS 1524-1 IEC 62059-32-1 EN 50470-1/2/3 OIML R46 Australian criteria NMI M 6-1	
d.	Ripple control receivers Time switches	Functionalities	IEC 62052-21 IEC 62054-11/21	
e.	Power Quality meters	Metrological Characteristics and Functionalities Conformity assessment of class A & S instruments	IEC 61000-4-30 IEC 62586-1 IEC 62586-2	
f.	Performance Measuring and Monitoring Devices	Metrological Characteristics and Functionalities	IEC 61557-1 IEC 61557-12	
g.	Reactive electrical energy meters	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • External mechanical load • EMC immunity • Overload test 	German "Anlage 20 Abschnitt 1 Teil 2 der Eichordnung in der am 31.12.2014 geltenden Fassung" PTB-A 20.1(12/2003) PTB-A 50.7(02/2002)	

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h.	Separate and integrated auxiliary devces incl. Smart-Meter-Gateway for electricity measuring instruments	Functionalities	German : "Anlage 20 Abschnitt 1 Teil 2 der Eichordnung in der am 31.12.2014 geltenden Fassung" PTB-A 20.1 (12/2003) PTB-A 50.7 (02/2002) PTB-A 50.8 (12/2014)	De
i.	Thermal Energy meters (heat meters)	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • External mechanical load • EMC immunity Overload test • Overload test • Software 	In accordance with : Directive 2014/32/EU annex I, annex III MI-004 OIML R75 EN 1434 WELMEC guide 7.2	
j.	Measuring systems for the continues and dynamic measurement of quantities of liquids other than water	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Durability test • Vibration test • EMC immunity • Vapour deposition test • Functional tests 	In accordance with: Directive 2014/32/EU annex I, annex III MI-005 OIML R81 OIML R117	
k.	Compressed gaseous fuel measuring systems for vehicles	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Vibration test • EMC immunity • Functional tests 	OIML R139	
l.	Material Measures – Capacity serving measures	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy 	In accordance with: Directive 2014/32/EU annex I, annex III MI-008 OIML R138	

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m.	Automatic level gauges for measuring the level in fixed storage tanks	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Sensitivity • Hysteresis • Temperature test • EMC immunity • Functional tests 	OIML R85	De
n.	Measuring systems for the mass of liquids in tanks	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Sensitivity • Hysteresis • Temperature test • EMC immunity • Functional tests 	OIML R125	
Safety Testing				
o.	Electrical metering equipment	Product safety tests: <ul style="list-style-type: none"> • Single fault • Electrical shock • Mechanical stress • Spread of fire • Temperature and heat tests Glow Wire Test • Dust and water tests Dust: IP 1,2,3,4,5 (with suction) Water: IP 1,2,3,4 • Liberated gases and implosion of batteries 	IEC 62052-31 IEC 60695-2-11 IEC 60529	De

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No.	Material or product	Type of activity ¹	Internal reference number	Location
Weighing instruments				
p.	Non-automatic weighing instruments (≥ class I)	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Functional tests • Checklist • EMC immunity 	In accordance with: Directive 2014/31/EU OIML R60 OIML R76 EN 45501	De, O
q.	Automatic weighing instruments	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • Functional tests • Checklist • EMC immunity 	In accordance with: Directive 2014/32/EU annex I, annex III MI-006 OIML R50 OIML R51 OIML R61 OIML R106 OIML R107	
r.	Automatic instruments for weighing road vehicles in motion and measuring axle loads	Type evaluation	In accordance with: OIML R134	
s.	Weighing in Motion	Type examination	NMi International WIM Standard (NIWS)	
t.	Dynamische weegbruggen	Typeonderzoek	In accordance with: OIML R134	
Traffic measuring instruments				
u.	Taxi meters	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • EMC immunity • Climate test • Condensation test • Storage test • Vibration test • Checklist 	In accordance with: Directive 2014/32/EU annex I, annex III MI-007 OIML R21	De

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No.	Material or product	Type of activity ¹	Internal reference number	Location
v.	Breath analysers, Alcohol testers / locks	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • EMC immunity • Climate test • Atmospheric pressure • Checklist 	OIML R126 EN 50436-1 EN 50436-2 EN 15964 Regeling ademanalyse Regeling alcohol, drugs en geneesmiddelen in het verkeer Regeling voertuigen (alcoholsloten) Belgian "Koninklijk besluit betreffende de ademtesttoestellen en de ademanalysetoestellen, 21 april 2007" Belgian "Koninklijk besluit betreffende de installatie van het alcoholslot en het omkaderingsprogramma, 26 november 2010"	De
w.	Exhaust gas analysers	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • EMC immunity • Climate test • Condensation test • Vibration test • Atmospheric pressure • Checklist 	In accordance with: Directive 2014/32/EU annex I, annex III MI-010 Regeling voertuigen OIML R99	De, O
x.	Smoke meters	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • EMC immunity • Temperature test • Checklist 	Regeling voertuigen	De

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y.	Speed measuring instruments -Radar -Laser -Detector -Section	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Functional tests • Accuracy • EMC immunity • Climate test • Checklist 	Regeling Meetmiddelen Politie Concept voorschriften meetmiddelen Politie Belgian “Koninklijk besluit betreffende de goedkeuring, de ijking en de installatie van de meettoestellen gebruikt om toezicht te houden op de naleving van de wet betreffende de politie over het wegverkeer en haar uitvoeringsbesluiten van 12 oktober 2010” United Kingdom: “The Speedmeter Handbook” (Fourth Edition), A Guide to Type Approval Procedures for Speedmeters, used for Road Traffic Law Enforcement in Great Britain. Publication No. 15/05 A Guide to Type-Approval Procedures for Automatic Distance/Time Speedmeters used for Road Traffic Law Enforcement in Great Britain. Publication No. 02/06 “The Traffic Light Camera Handbook” (Second edition) A guide to type approval procedures for traffic light cameras used for road traffic law enforcement in Great Britain. Publication No. 56/04	De, O
Auxiliary measuring instruments				
z.	Material measures Length measures	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy 	In accordance with: Directive 2014/32/EU annex I, annex III MI-008 OIML R35	De

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aa	Dimensional measuring instruments Multi-dimensional measuring instruments	Metrological Characteristics and Functionalities <ul style="list-style-type: none"> • Accuracy • Climate test • EMC immunity • Checklist • Functional tests 	In accordance with: Directive 2014/32/EU annex I, annex III MI-009 OIML R129	De

Electromagnetic Compatibility Immunity Tests

EMC.I.07	As specified in the scheme	Immunity to conducted disturbances, induced by radio-frequency fields 150 kHz - 80 MHz (1 – 24) V	C-PC EMC TSD RFCM	De
EMC.I.09		Continuous magnetic field immunity Up to 0.5 mT	IEC 62053-11/21/22/23/24	
EMC.I.10		Short-time overcurrent immunity Overcurrent value up to 10 kA	Short-time overcurrents (werkinstructie)	
EMC.I.11		Impulse voltage immunity Up to 6 kV	IEC 50470-1, R046, SP 1678	
EMC.I.12		Radiated immunity Electro Magnetic Field (26 – 6000) MHz (3 – 30) V/m	CWV EMC TSD IIF	
EMC.I.21		Electrostatic discharge immunity (ESD) Contact discharge 0- 8 kV Air discharge 0 – 15 kV	CWV EMC TSD elektrostatische ontleding	
EMC.I.22		Electrical fast transient / burst immunity (EFT) 1 and 3 phase and I/O lines (0,25 – 4) kV	CWV EMC TSD Burst	
EMC.I.23		Surge immunity 1 and 3 phase and I/O lines (0,2 – 4) kV	CWV EMC TSD Surge	
EMC.I.24		Power frequency magnetic field immunity @ 50/60 Hz Up to 300 A/m	CWV EMC TSD magnetisch veld	

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No.	Material or product	Type of activity ¹	Internal reference number	Location
EMC.I.26		Voltage dips, short interruptions and voltage variations Immunity Single phase equipment Up to 16 A 50 - 60 Hz	CWV EMC TSD spanningsvariatie	
EMC.I.30		DC voltage ripple Immunity Up to 16 A	CWV EMC TSD DC-ripple	

Note: Metrological characteristics and functionalities

The metrological characteristics of the measuring instrument are the estimation of errors of indication under rated operation conditions and in the presence of climatic disturbance (temperature, mechanical, electromagnetic). It comprises reproducibility, repeatability, discrimination and sensitivity, durability, reliability, suitability of the indication of the measuring instruments. The functionalities of the measuring instrument are protection of hardware and software against corruption, information to be borne by and to accompany the instrument, the indication of result, processing of data to conclude the trading transaction.

The requirements are supplemented, where appropriate, by specific instrument requirements in the directives (MI-001 until MI-010), OIML Document D11 General requirements for measuring instruments - Environmental conditions and WELMEC guidance documents: WELMEC WG 2 on NAWI, WG7 for software, WG 10 for Measuring systems for the continuous and dynamic measurement of quantities of liquids other than water and WG 11 for energy meters.

Active electrical energy meters and peripherals: Capacity service metering equipment – Common Application – Welmec Guide 8.9 issue 1 and Welmec Guide 8.18 issue 1