Schedule of Accreditation

issued by

United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

UKAS TESTING

0004

Accredited to ISO/IEC 17025:2005

National Measurement Office

Issue No: 026 **Issue date:** 16 May 2011

NMO Certification Services
Stanton Avenue
Teddington
Middlesex
TW11 0JZ

Contact: Mr P Dixon
Tel: +44 (0)20 8943 7282
Fax: +44 (0)20 8943 7270
E-Mail: paul.dixon@nmo.gov.uk
Website: www.bis.gov.uk/nmo

Testing performed at the above address only

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ELECTRONIC AND ELECTRICAL WEIGHING AND MEASURING INSTRUMENTS AND ANCILLARY EQUIPMENT (excluding non-automatic weighing instruments)	Performance under the following conditions:-	
	Voltage dips, short time power reductions and voltage variations	IEC 61000-4-11:2004 EN 61000-4-11:2004 OIML R117:1995 OIML R118:1995
	Electrostatic discharge	IEC 801-2:1991 IEC 61000-4-2:1995 plus A1:1998 and A2:2000 IEC 61000-4-2:2008 EN 61000-4-2:1995 plus A1:1998 and A2:2001 EN 61000-4-2:2009 OIML R117:1995 OIML R118:1995
	Radiated, radio frequency, electromagnetic fields	IEC 801-3:1984 IEC 61000-4-3:1995 plus A1:1998 and A2:2000 ENV 50140:1994 EN 61000-4-3:1996 plus A1:1998 and A2:2001 EN 61000-4-3:2002 plus A1:2002 IEC 61000-4-3:2006 plus A1:2008 EN 61000-4-3:2006 plus A1:2008 OIML R117:1995 OIML R118:1995

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ELECTRONIC AND ELECTRICAL WEIGHING AND MEASURING INSTRUMENTS AND ANCILLARY EQUIPMENT (excluding non-automatic weighing instruments) (cont'd)	Performance under the following conditions:- (cont'd)	
	Fast transients/bursts	IEC 801-4:1988 IEC 61000-4-4:1995 plus A1:2000 plus A2:2001 EN 61000-4-4:1995 plus A1:2001 plus A2:2001 IEC 61000-4-4:2004 EN 61000-4-4:2004 OIML R117:1995 OIML R118:1995
	Conducted RF Immunity 150 kHz to 80 MHz Single phase ac power supplies only, CDN method I/O lines, em-clamp method	EN 61000-4-6:1996 plus A1:2001 IEC 61000-4-6:2003 plus A1:2004 plus A2:2006 IEC 61000-4-6:2008 EN 61000-4-6:2007 EN 61000-4-6:2009
	Surges	IEC 61000-4-5:1995 plus A1:2000 EN 61000-4-5:1995 plus A1:2001 IEC 61000-4-5:2005 EN 61000-4-5:2006
NON-AUTOMATIC WEIGHING INSTRUMENTS HAVING A MAXIMUM CAPACITY NOT MORE THAN 2000 kg AND NOT MORE THAN 10,000 SCALE INTERVALS	Weighing performance in the range from - 10 °C to + 40 °C	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Temperature effect on no load	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Eccentricity	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Discrimination and sensitivity	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
NON-AUTOMATIC WEIGHING INSTRUMENTS HAVING A MAXIMUM CAPACITY NOT MORE THAN 2000 kg AND NOT MORE THAN 10,000 SCALE INTERVALS (cont'd)	Repeatability	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Creep and Zero return	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Stability of equilibrium	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Tilting	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Tare	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Warm-up time	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Voltage variations	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Short time power reductions	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E)
	Voltage dips and short time power reductions	OIML R76-1 Edition 2006(E)
	Electrical bursts	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
NON-AUTOMATIC WEIGHING INSTRUMENTS HAVING A MAXIMUM CAPACITY NOT MORE THAN 2000 kg AND NOT MORE THAN 10,000 SCALE INTERVALS (cont'd)	Surges	OIML R76-1 Edition 2006(E)
	Electrostatic discharges	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Immunity to radiated electromagnetic fields	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Immunity to conducted electromagnetic fields	OIML R76-1 Edition 2006(E)
	Damp heat, steady state	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Span stability	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
	Endurance	EN 45501:1992 + AC:1993 R76-1 Edition 1992(E) + Amendment 1 1994(E) OIML R76-1 Edition 2006(E)
LOAD CELLS UP TO 2 TONNE CAPACITY AND NOT MORE THAN 10,000 SCALE INTERVALS	Determination of load cell error, repeatability error and temperature effect on minimum dead load output	OIML R60 Edition 2000 (E)
	Determination of creep error	
	Determination of minimum dead load output return	
	Determination of barometric pressure effects	
	Determination of humidity effects	
	Additional tests for load cells equipped with electronics	

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ELECTRONIC AND ELECTRICAL WEIGHING AND MEASURING INSTRUMENTS & ANCILLARY EQUIPMENT IN ROAD VEHICLES	Electrical transient conduction along supply line	OIML R76-1:2006 B.3.7.1 ISO 7637-2:2004 +A1:2008 Test pulses 1,2a, 2b, 3a, 3b, 4, 5
	Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines	OIML R76-1:2006 B.3.7.2 ISO 7637-3:2007 Fast pulses a & b of clause 4.3.2 CCC method only
FUEL DISPENSERS AND METERS for diesel & kerosene Deliveries from 2L to 100L	Accuracy tests	R117:1995, 6.1.5.2 Accuracy tests R118:1995, 3.2 Accuracy
	Minimum measured quantity	R117:1995, 6.1.5.2.3 Minimum measured quantity R118:1995, 3.3 Minimum measures quantity
	Flow disturbances	R117:1995, 6.1.5.2.3 Flow disturbances R118:1995, 3.4 Flow interruption
	Gas elimination device	R117:1995, 6.1.6 Gas elimination device R118:1995, 3.5 Gas elimination
	Variations in the internal volume of full hoses	R117:1995, 2.15 Variations in the internal volume of full hoses R118:1995, 3.6 Hose dilation
	Endurance tests	R117:1995, 6.1.5.3 Endurance tests R118:1995, 3.7 Endurance
	Dry Heat	R117:1995, A.4.1 Dry Heat R118:1995, 4.1 Dry heat (non condensing)
	Cold	R117:1995, A.4.2 Cold R118:1995, 4.2 Cold
	Damp heat, cyclic	R117:1995, A.4.3 Damp heat, cyclic R118:1995, 4.3 Damp heat, cyclic
	END	