

ENL Testing Laboratory

METTLER TOLEDO

Testing Laboratory accredited by the Swiss accreditation service SAS
Prüfstelle akkreditiert von der Schweizerischen Akkreditierungsstelle SAS

Registration Nr.: **STS 009**

Swiss Testing Service
Schweizerischer
Prüfstellendienst



TEST REPORT- No.:

20081208.A01.01

Generation date:
Erstellungsdatum:

02.10.2008

Test object/Prüfobjekt:

Digital Load Cell POWERCELL PDX SLC820 30mt

Client/Kunde:

Mettler Toledo AG MTLC

Test area:
Testbereich:

- Electromagnetic compatibility
 Nonautomatic weighing instruments

Test result:
Testergebnis:

- pass/erfüllt fail/nicht erfüllt partly pass/teilweise erfüllt

Test performed by:
Test durchgeführt
durch:


Rainer Ebert

Test Report released by:
Prüfbericht freigegeben
durch:


Bernhard Merk

Mettler-Toledo AG
ENL Test Laboratory
Heuwinkelstrasse
CH – 8606 Nänikon

Phone: +41 44 944 32 33
Fax: +41 44 944 33 10
E-Mail: <mailto:rainer.ebert@mt.com>
<mailto:bernhard.merk@mt.com>

Excerpts from this report may not be copied without written permission of the testing laboratory
Dieser Bericht darf nicht auszugsweise, ohne schriftliche Genehmigung der Prüfstelle, kopiert werden.

The results of this report apply only to the devices under test listed
Die Ergebnisse in diesem Prüfbericht gelten nur für die aufgeführten Prüfobjekte.

Contents

Part 1	Customer details.....	3
Part 2	Data of the test objects.....	4
Part 3	Peripheral units	5
Part 4	Operating mode during test	6
Part 5	Overview of the tests performed / confirmation.....	7
	PART 5.1 ELECTROMAGNETIC COMPATIBILITY.....	8
Appendix 1:	Identification	10
Appendix 2	Test records / graphs.....	12
Appendix 3	Additional documentation of the test.....	42
Appendix 4:	Documentation of the test and the EUT	44
Appendix 5:	Test and measurement equipment	45

Part 1 Customer details

Name of the company:	Mettler Toledo AG MTLC
Address:	
Street:	Heuwinkelstasse
City / zip code:	CH-8608 Nänikon
Country:	Switzerland
Telephone No.:	+41 (0)1 944 22 11
Telephone No., direct dial:	+41 (0)1 944 26 19
Contact person(s):	Mr. C. Bucher

Part 2 Data of the test objects

Number of instruments: 1
Name of manufacturer: Mettler Toledo (Changzhou)
Precision instrument Ltd.

Address:

METTLER-TOLEDO (CHANGZHOU) Precision Instrument Ltd.
No.3, Huashan Road, Sanjiang Industry Park, Xinbei District
Changzhou, Jiangsu Province
P.R.China 213022

Test object

Test object	Manufacturer's identification No.	Software version
1	Please see page 11	

Operating instructions: not available
Data sheet: not available

Additional information:

As supplied condition: Mr. C. Bucher
Technical data: ---
EUT's mains voltage (DC or AC/Hz voltage): 12VDC powered
from Terminal
24VDC external
powered

Part 3 Peripheral units

Additional accessories

Number of instruments:	1
Model / type:	Terminal
Name of manufacturer/Serial No	Please see page 11 of this test report

Additional accessories

Number of accessories:	1
Data cable:	Home run cable (metal shielded, please see page 10)
length:	2m
Other accessories:	None

Additional peripherals

Number of instruments:	1
Model / type:	Power supply
Name of manufacturer/Serial No	Please see page 11 of this test report

Part 4 Operating mode during test

- Not in operation
- Continuous operation
- Partly in operation as described in test record

Power supply:

- Electrical supply system: 230 VAC nominal voltage
50 Hz nominal frequency
- Others: 12VDC from Terminal
24VDC from external Power
supply

Operating mode: Normal measuring mode
Admissible deviations: +/- 1kg

Check on:

Display: Display controlled
Interface: ---
Test instrument: ---
Test configurations: ---

Part 5 Overview of the tests performed / confirmation

- Electromagnetic compatibility (industrial location)
 Electromagnetic compatibility (minimal requirement)
 Nonautomatic weighing instruments

Test				
Date	No.	area	Test designation	Status
			Emission	
30.09.2008	3	A	Radiated emission	P
30.09.2008	4	A	Conducted emission	P
N		A	Harmonic	---
N		A	Flicker	---
			Immunity:	
29.09.2008	1	A	Radiated RF on: Equipment or systems	P
29.09.2008	2	A	RF pulse modulated	P
N		A	Magnetic field power frequency	---
30.09.2008	5	A	Conducted RF induced on cables	P
N		A	Burst on power supply lines	---
30.09.2008	6	A	Burst on I/O signal and control lines	P
N		A	Main dips, interruptions, variations	---
N		A	Surge on: Power supply lines	---
30.09.2008	7	A	Surge on I/O signal and control lines	P
30.09.2008	8	A	ESD	P

* informative test only

Key:

- No test performed
 P Test passed
 F Test failed
 D Instrument defective
 N Not required

Part 5.1 Electromagnetic compatibility**Overview of the tests performed**

Test designation	Standard	Note	Status
Emission: EN 61326-1			
Radiated emission	EN 55022:1998/A2:2003 Ref. Doc.: CISPR 22:1997/A2:2002	Class B	P
Conducted emission	EN 55022:1998/A2:2003 Ref. Doc.: CISPR 22:1997/A2:2002	Class B	P
Harmonic	EN 61000-3-2:2006 Ref. Doc.: IEC 61000-3-2:2005		N
Flicker	EN 61000-3-3:1995/A2:2005 Ref. Doc.: IEC 61000-3-3:1994/A2:2005		N
Immunity: EN 61326-1			
Radiated RF on: Equipment or Systems	EN 61000-4-3:2006 Ref. Doc.: IEC 61000-4-3:2006	up to 2.7GHz	P
Magnetic field power frequency	EN 61000-4-8:1993/A1:2001 Ref. Doc.: IEC 61000-4-8:1993/A1:2000		N
Conducted RF induced on cables	prEN 61000-4-6:2006 Ref. Doc.: IEC 61000-4-6:2003 + A1:2004 + A2:2006		P
Burst on: Power supply lines	EN 61000-4-4:2004 Ref. Doc.: IEC 61000-4-4:2004		N
Burst on: I/O signal and control lines	EN 61000-4-4:2004 Ref. Doc.: IEC 61000-4-4:2004		P
Mains dips, interruptions, variations	EN 61000-4-11:2004 Ref. Doc.: IEC 61000-4-11:2004		N
Surge on: Power lines	EN 61000-4-5:2006 Ref. Doc.: IEC 61000-4-5:2005		N
Surge on I/O	EN 61000-4-5:2006 Ref. Doc.: IEC 61000-4-5:2005		P
Electrostatic discharge	EN 61000-4-2:1995/A2:2001 Ref. Doc.: IEC 61000-4-2:1995/A2:2000		P

Additional tests (customer requirements)

Immunity	EN 50082-2 (see note next page)		
Radiated RF on: Equipment or Systems	ENV 50204	Pulse	P

Standards:

Note: - The text of the International Standard (IEC) was approved by CENELEC (EN) as an European Standard without modifications.

All EN- Standards are referenced to IEC- Standards with same content.

For details, see the corresponding protocols in appendix

- (a) EN 61326-1:2006 (Industrial locations / Continuous unmonitored operation)
EN 61326-1:2006 (Minimal requirements / Continuous unmonitored operation)
- (b) Test level according to EN 45501 [1992 +AC: 1993]
- (c) The statistical determination of the conformity of series manufactured instruments was not performed.
- (d) Radiated emission + Conducted emission EN55022 is equivalent acc. to CISPR22
- (e) Test level according to EN 50082-2 [1995]
Declaration: The standard EN 50082-2 have been changed into EN61000-6-2, but in EN61000-6-2 no pulse test will be asked.

Key: – No test P passed F failed D Instrument defective N Not required

Note: For details, see test records in appendix