Evaluation Certificate

Number **TC11130** revision 0
Project number 1901210

Issued by	NMi Certin B.V.
In accordance with	WELMEC 8.8 Issue 2, EN 45501:2015, OIML R 76-1 (2006), WELMEC 7.2, 2015
Producer	Hottinger Baldwin Messtechnik GmbH Im Tiefen See 45 D-64293 Darmstadt Germany
Measuring instrument	An **Indicator**, **Analog data processing device** or **Terminal** tested as a part of a weighing instrument. Type : WTX110 Further properties are described in the annexes: - Description TC11130 revision 0; - Documentation folder TC11130-1. An overview of performed tests is given in the annex: - Description TC11130 revision 0.
Issuing Authority	**NMi Certin B.V.** 21 November 2017 C. Oosterman Head Certification Board

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INSPECTION
RvA I 122

1 General information about the instrument

All properties of the instrument, whether mentioned or not, shall not be in conflict with the standard mentioned in the certificate.

This certificate is the positive result of the applied voluntary, modular approach, for a component of a measuring instrument, as described in WELMEC 8.8. The complete measuring system must be covered by an EC type-approval certificate or an EU-type examination certificate.

1.1 Essential parts

Number	Pages	Description	Remarks
11130/0-01	1	AD board	-
11130/0-02	1	Dual AD board	-
11130/0-03	3	Tilt sensor	RS232 output

Configuration with zener barriers:

Manufacturer	Type	Remarks
Pepperl + Fuchs Group	Z042 or SB0042	In signal lines
Pepperl + Fuchs Group	Z041 or SB0041	In sense lines
Pepperl + Fuchs Group	Z040 or SB0040	In excitation voltage lines

Configuration with lightning protection:

DEHN	BXT ML2 BE S12	For signal, sense and excitation voltage lines

EMI protection measures:
- The instrument is built in a metal cabinet.

1.2 Essential characteristics

All configurations:

Climatic environment	temperature range	-10 °C / +40 °C
	humidity	non-condensing
	intended location	Closed
Mechanical environment class		M3
Electromagnetic environment class		E3
Power supply voltage		110 – 240 V AC 50/60 Hz External power supply 12 – 30 V DC Vehicle battery power supply 12 – 30 V DC
Software identification		Checksum: 15487782

Configuration with analog load cells:

Accuracy class		(III) or (IIII)	
Weighing range(s)		Single interval Multi-interval Multiple range	
Maximum number of partial weighing ranges		3	
Maximum number of weighing ranges		3	
Maximum number of scale intervals		without zener barriers	with zener barriers
		without tilt compensation	with tilt compensation	without tilt compensation
		$n \leq 10000$	$n \leq 3000$	$n \leq 6200$
Load cell excitation voltage		5 V square wave		4,1 V square wave without load cell(s) connected
Minimum input voltage per verification scale interval		0,33 µV		0,66 µV
Minimum load cell resistance		43 Ω		87,5 Ω
Maximum load cell resistance		3,3 kΩ		
Fraction of the maximum permissible error		0,5		
Load cell connection		Remote sensing on both 6-wire and 4-wire load cells		

Maximum value of the cable length per cross wire section between the instrument and the junction box or load cells	202 m/mm^2	3846 m/mm^2
Maximum number of load platforms	2	

Configuration with digital load cells or weighing modules:

Accuracy class	Matching the accuracy class of the digital load cell or weighing module
Weighing range(s)	Single interval Multi-interval Multiple range
Maximum number of partial weighing ranges	3
Maximum number of weighing ranges	3
Load cell power supply	12 V DC
Fraction of the maximum permissible error	0
Maximum number of load platforms	2

Software:
- The identification number will be displayed after pressing the key sequence:
  - Arrow-up button several times until the start-up message appears (depending upon the loaded application, e.g. “V###”);
  - Enter button to enter Supervisor Mode;
  - F1 button several times until “Software ID” appears;
  - Enter button;
- The instrument has loadable software;
- Software specification (WELMEC 7.2):
  - Software type U;
  - Risk Class C;
  - Extension L/S/D.

List of legally relevant functions:
- Determination stability of equilibrium;
- Zero indicating;
- Semi-automatic zero-setting;
- Initial zero-setting;
- Zero-tracking;
- Semi-automatic subtractive tare weighing;
- Preset tare;
- Gravity compensation;
- Tilting compensation;
- Adjustment / set-up mode via a switch on the AD board;
- Acting upon significant faults;
- Check weighing mode;
- Set points;

- Indication of selected set point(s);
- Linearity compensation: maximum of 6 points for each connected platform;
- Extended indicating, resolution 1/10 e for a period not exceeding 5 seconds after a manual command;
- Platform select with indication of selected platform;
- Memory storage that complies with WELMEC 7.2, 2015 extension L, OIML R 76 (2006) clause 5.5.3 and EN 45501:2015 clause 5.5.3;
- Software download function that complies with WELMEC 7.2, 2015 extension D;
- Indications other than primary indications;
- Indication of additional information;
- Totalisation;
- Count mode;
- Fill mode.

1.3 Essential shapes

Number	Pages	Description	Remarks
11130/0-04	3	Housing indicator / terminal and ADPD	-

The descriptive markings plate is secured against removal by sealing or will be destroyed when removed and contains at least the following information:
- This certificate number TC11130;
- Producers name or mark.

The inscriptions Max, Min, e may be optionally presented in the display by software according to EN 45501:2015 clause 7.1.2.

The analog data processing device (black box variant) may be equipped with an optional board that can be used as junction box for analog load cells.

Inside the cabinet is an adjustment lock, located on the AD board.

1.4 Conditional parts

Number	Pages	Description	Remarks
11130/0-05	1	AC mains power supply unit	Encapsulated by an epoxy cast for explosion proof versions
11130/0-06	1	DC mains power supply unit	-
11130/0-07	1	DC vehicle battery power supply unit	-
11130/0-08	3	CPU board	-
11130/0-09	2	ET3 extension board	-
11130/0-10	2	PB3 extension board	-
11130/0-11	2	PN3 extension board	-
11130/0-12	1	SIMETH3 extension board	-
11130/0-13	1	DWB board	-
11130/0-14	1	IDN board	-

The instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232;
- Ethernet;
- USB host;
- RS485;
- Bluetooth;
- Digital I/O;
- Analog I/O;
- Modbus;
- EtherNet/IP
- Profibus;
- ProfiNET.

1.5 Non-essential parts

Display;
Keyboard;
Plug-in communication modules;
Plug-in data storage module.

2 Seals

To secure components that may not be dismantled or adjusted by the user, the instrument has to be secured in a suitable manner on the locations indicated in the drawings:

Number	Pages	Description	Remarks
11130/0-15	1	Sealing AD boards	-
11130/0-16	1	Sealing tilt sensor	-

The connecting cable of the load cell or the junction box is provided with possibility to seal.

The tilt sensor is sealed to the construction of the complete instrument.

The software download event logger can be displayed by pressing the key sequence:
- Arrow-up button several times until the start-up message appears (depending upon the loaded application, e.g. "V###");
- Enter;
- F1 until “Software Updates” is selected;
- Enter;
- The last entry is shown in the display;
- F1 to scroll right or enter to show the previous entry.

3 Conditions for conformity assessment

The compatibility of load cells and the instrument is established by the manufacturer by means of the compatibility of modules form, contained in WELMEC 2, 2015 clause 10 at the time of putting into use.

Other parties may use this Evaluation Certificate only with the written permission of the producer.

4 Reports

An overview of performed tests is given in the reports:
- No. NMi-13200671-01 dated 24 July 2014 that includes 57 pages;
- No. NMi-13200671-03 dated 24 July 2014 that includes 41 pages;
- No. NMi-14200392-01 dated 19 September 2014 that includes 32 pages;
- No. NMi-15200574-01 dated 22 July 2016 that includes 32 pages;
- No. NMi-15200574-02 revision 1 dated 16 September 2016 that includes 17 pages;
- No. NMi-15200574-03 dated 23 July 2016 that includes 26 pages;
- No. NMi-15200574-04 dated 16 September 2016 that includes 21 pages.

A report can be a test report, an evaluation report, a type evaluation report and/or a pattern evaluation report.

Documentation folder

Number **TC11130-1**
Project number 1901210

Number	Pages	Description	Remark
11130/0-01	1	AD board	-
11130/0-02	1	Dual AD board	-
11130/0-03	3	Tilt sensor	RS232 output
11130/0-04	3	Housing indicator / terminal and ADPD	-
11130/0-05	1	AC mains power supply unit	Encapsulated by an epoxy cast for explosion proof versions
11130/0-06	1	DC mains power supply unit	-
11130/0-07	1	DC vehicle battery power supply unit	-
11130/0-08	3	CPU board	-
11130/0-09	2	ET3 extension board	-
11130/0-10	2	PB3 extension board	-
11130/0-11	2	PN3 extension board	-
11130/0-12	1	SIMETH extension board	-
11130/0-13	1	DWB board	-
11130/0-14	1	IDN board	-
11130/0-15	1	Sealing AD boards	-
11130/0-16	1	Sealing tilt sensor	-

WTX110

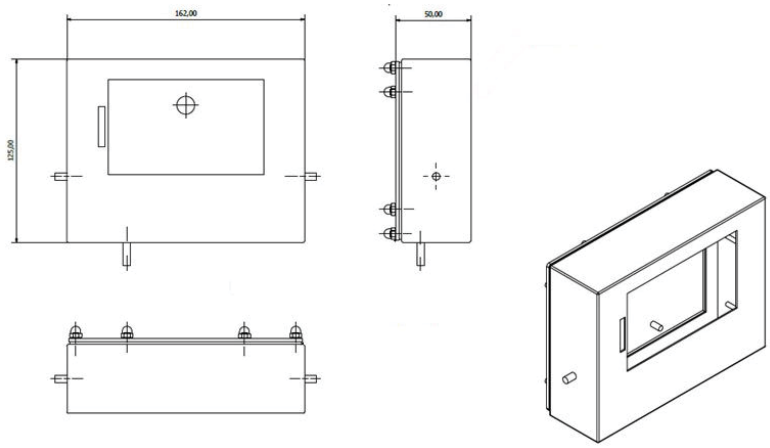
Eichfähiges Industrie-Wägeterminal /
Legal-for-trade industrial weighing terminal

Edelstahl Gehäuseformen für Tisch- und Wandmontage oder Schaltschrankeinbau/
Stainless steel housing shapes for desktop and wall mounting or control cabinet installation

für Wand- und Tischmontage
for Desktop and wall mounting

für Schaltschrankeinbau
for control cabinet installation

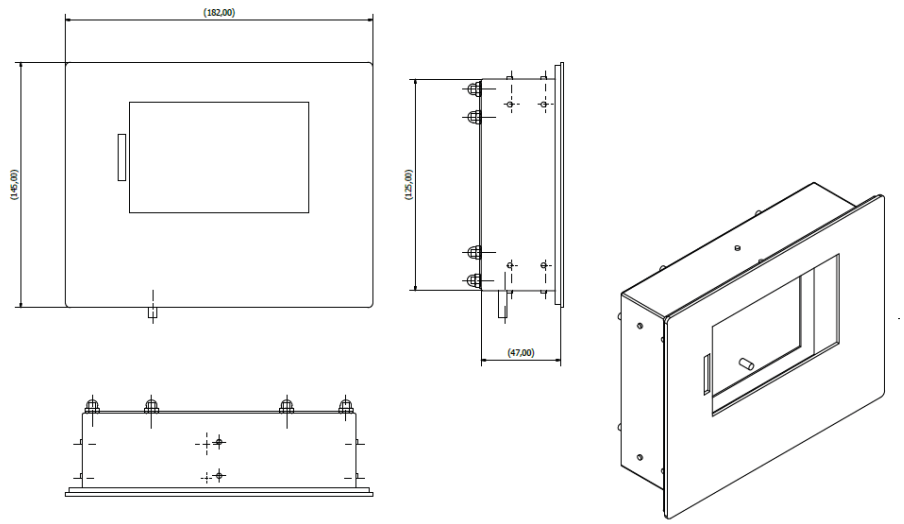
Gehäusevariante Tisch- und Wandmontage A
Housing shape desktop and wall mounting A



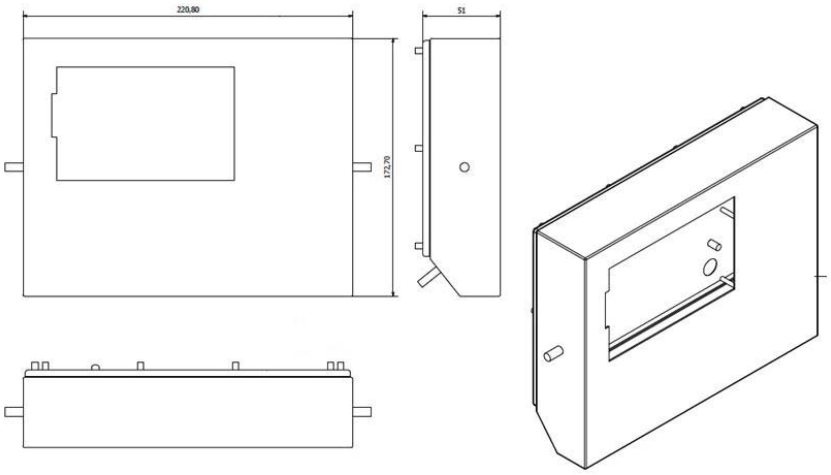
Technische Information / *Technical Information*

B4815-1.0 de/en 11.2016 HBM: public

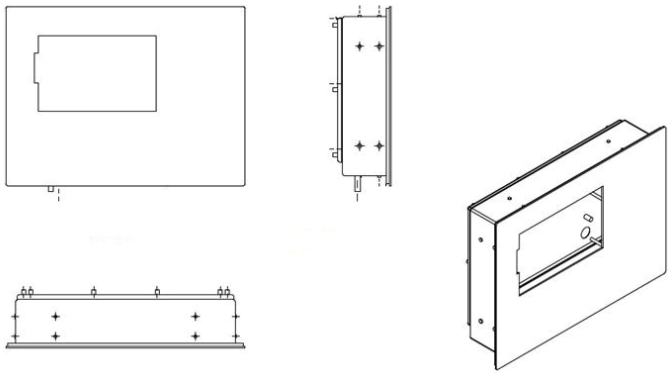
Gehäusevariante Schaltschrankeinbau A
Housing shape control cabinet A



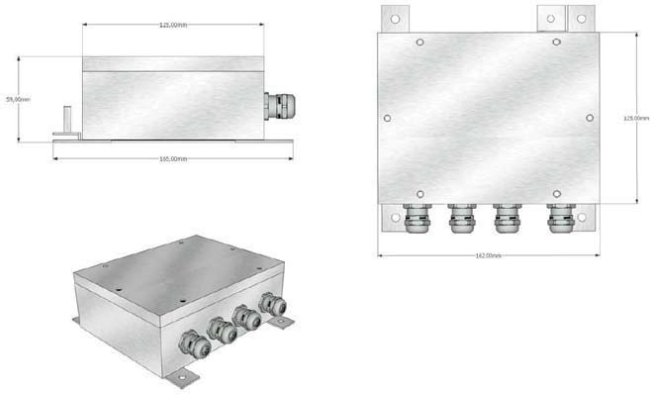
Gehäusevariante Tisch- und Wandmontage B
Housing shape desktop and wall mounting B



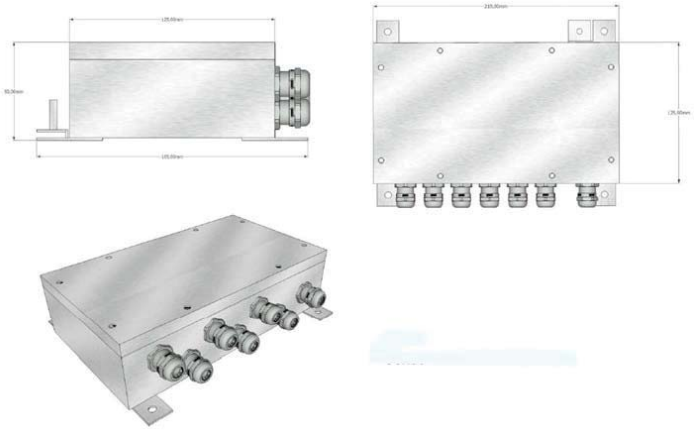
Gehäusevariante Schaltschrankeinbau B
Housing shape control cabinet B



Gehäusevariante Blackbox A
Housing shape blackbox A



Gehäusevariante Blackbox B
Housing shape blackbox B

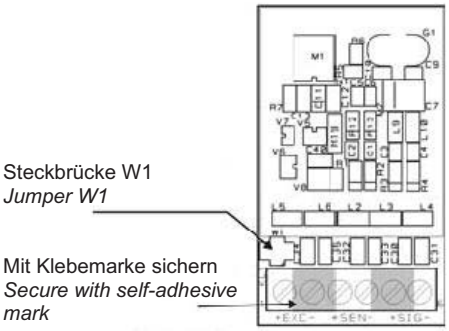


Versiegelung des WTX110 / *Sealing of the WTX110*

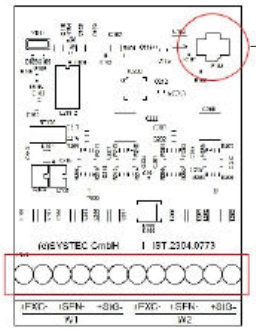
Der Kalibrierjumper W1 muss entweder mit einem Siegelmarken oder einer Plombe gesichert werden.
Wenn der Kalibrierjumper korrekt eingesetzt ist, können rechtlich relevante Parameter nicht verändert werden.
Die Verbindung zu den Wägezellen muss zusätzlich durch Klebemarken gesichert werden.

Jumper W1 must be secured by either a sealing mark or sealing lead.
With jumper W1 in position legally relevant parameters cannot be altered.
In addition the connection to the load cells must be secured by seal marks.

ADM Schema
ADM Schematics



DADM Schema
DADM Schematics

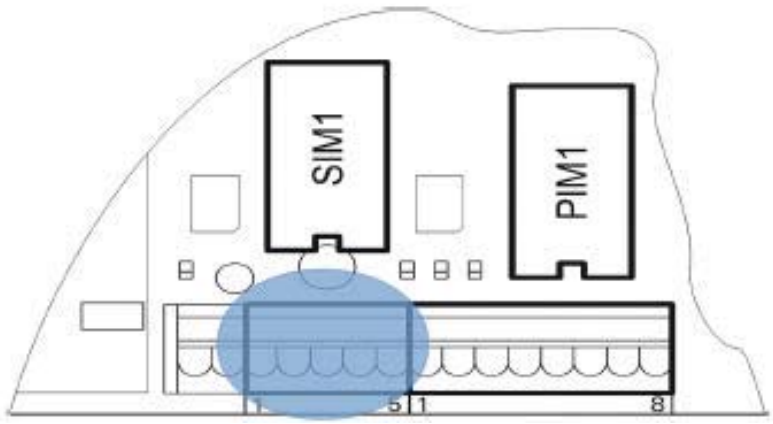


Versiegelung des Kalibrierjumpers mit Plombe oder alternativ mit Siegelmarken
Sealing of jumper W1 by lead seal or seal marks alternatively

Versiegelung von Schaubklemmen mit Siegelmarken
Sealing of screw-type terminals by seal marks

Detailansicht Kalibrierjumper W1
Jumper W1 in detail

Versiegelung RS232 Neigungssensor (sofern vorhanden) / Sealing RS232 Incline Sensor (if available)



RS232 Verbindung an KL2 mit Siegelmarke(n) versiegeln
Sealing of RS232 connection using seal-mark(s) on KL2

Änderungen vorbehalten.
Alle Angaben beschreiben unsere Produkte in allgemeiner Form. Sie stellen keine Beschaffenheits- oder Haltbarkeitsgarantie dar.

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