DANAK
PROD Reg. nr 7026

FORCE Certification

EU Type Examination Certificate

No. 0200-MID-05087

QC..

AUTOMATIC CHECKWEIGHING INSTRUMENT

Issued by **FORCE Certification**
EU - Notified Body No. 0200

In accordance with the requirements for the automatic weighing instruments in Directive 2014/32/EU of the European Parliament and Council of February 26, 2014 on Measuring Instruments (MID).

Issued to **Newtec A/S**
Stærmosegårdsvej 18
5230 Odense M
DENMARK

In respect of Automatic checkweigher designated QC.. with variants of modules of load receptors, load cells and peripheral equipment.
Accuracy class XIII(1)
Maximum capacity: $\leq$ 5500g.
Verification scale interval: e $\geq$ 2 g.
Maximum number of verification scale intervals: n = 2750.
Variants of modules and conditions for the composition of the modules are set out in the annex.

The conformity with the essential requirements in Annex 1 and the specific requirements in Annex VIII (MI-006), chapter I & II of the Directive 2014/32/EU is met by the application of OIML R51-1:2006, OIML D11:2013 section 12 & 13 with severity level 3 and WELMEC Guide 7.2.

Note: This certificate is a revised version of DK0199.506.

The principal characteristics and approval conditions are set out in the descriptive annex to this certificate.

The annex comprises 10 pages.

Issued on **2018-11-20**
Valid until **2025-07-01**

Jens Hovgård Jensen
2018-11-20

Digitally signed by Jens Hovgård Jensen
jhje@force.dk
Certification Manager

FORCE Certification references:
Task no.: 118-33929 and ID no.: 0200-MID-05087

Signatory: J. Hovgård Jensen

Descriptive annex

Contents

		Page
1.	**Name and type of instrument and modules**	**2**
2.	**Description of the construction and function**	**2**
2.1	Construction	2
2.2	Functions	3
3.	**Technical data**	**4**
3.1	QC.. automatic checkweigher	4
3.2	Load cell	4
3.3	Load receptor	4
3.4	Speed limitations	4
3.5	Documents	4
4.	**Interfaces and peripheral equipment**	**4**
4.1	Interfaces	4
5.	**Approval conditions**	**5**
6.	**Special conditions for verification**	**5**
7.	**Securing and location of seals and verification marks**	**5**
7.1	Securing and sealing	5
8.	**Location of CE mark of conformity and inscriptions**	**5**
8.1	Identification plate	5
9.	**Pictures**	**7**

1. Name and type of instrument and modules

The automatic checkweigher is designated QC.. and is intended for dynamically weighing. It is manufactured by Newtec A/S.

2. Description of the construction and function

2.1 Construction

The QC.. is a traditionally built checkweigher where an infeed/acceleration conveyor leads the products onto a weighing conveyor for product mass registration. The weighing conveyor is mounted on a load receptor with one single point load cell. The checkweigher may also be fitted with reject conveyer for product separation. The position on the inlet and weighing conveyors of the product to be weighed is tracked by a camera.

The instrument is software wise of Type P and Risk Class B with extension T according to WELMEC Guide 7.2.

2.1.1 Indication

A LCD touch screen is placed on the front of QC.. and is used for all communication between the checkweigher and the operator.

2.1.2 Electronics

The electronics that control the QC.. is placed on the IO1000/APU pcb board (mainboard) and a RS485 load cell module inside the cabinet enclosure and contains microprocessor, memory, RS485 for connection of a digital load cell, and I/O for control of QC.. and communication.

The checkweigher is power supplied from one phase 230 VAC, 50/60 Hz.

2.1.3 Load cell

Set out in Section 3.2.

2.1.4 Load receptor

Set out in Section 3.3.

2.1.5 Interfaces and peripheral equipment

Set out in Section 4.

2.2 Functions

The display is used to display other information than weight during setup and adjustment. During the display of other information the weighing mode is inoperative.

Access to the functions is controlled through passwords in several levels.

The functions provided are detailed below.

2.2.1 Functions and devices

The automatic weighing instrument has the following permitted functions and devices that are subject to the Measuring Instrument Directive:

- Power up test
- Initial zero setting device (max. 20 % of Max)
- Automatic zero setting device (max 4 % of Max)
- Preset tare device
- Extended indication device (service mode only)
- Event log
- Detection of significant fault

The automatic weighing instrument cannot weigh statically.

2.2.2 Software identification

The format of the software versions are xx.yy.zz, where xx is the legal version number and yy.zz is used for error corrections and internal version control.

The approved software version is 1.yy.zz, where yy.zz ≥ 17.17.

The software can be downloaded by the manufacturer form the USB port using a special password. Such an action will be logged in the event log.

3. Technical data

The automatic weighing instruments and its modules are set out as follows:

3.1 QC.. automatic checkweigher

Type:	QC..
Accuracy class:	XIII(1)
Maximum capacity (Max):	≤ 5500 g
Minimum capacity (Min):	≥ 200 g
Verification scale interval (e):	e ≥ 2 g
Weighing range:	Single-interval
Number of Verification Scale Intervals (n):	≤ 2750
Maximum tare effect:	750 g
Belt speed:	0.2 m/s to 0.9 m/s
Temperature range:	5 °C to 35 °C
Weighing mode:	Dynamically
Maximum time between automatic zero setting:	15 minutes
Electromagnetic class:	E2
Humidity:	Non-condensing
Power requirements:	230 VAC, 50/60 Hz
Peripheral interface:	Set out in Section 4

3.2 Load cell

QC.. uses a SPSX C3 20 kg digital load cell from Eilersen Electric A/S.

3.3 Load receptor

The weighing conveyor is a belt conveyor placed on a load receptor equipped with one load cell.

3.4 Speed limitations

The maximum speed is reduced to 0.6 m/s when a target weight of ≥ 3000 g is set.

An attached reject conveyor can reduce the maximum speed of the machine for all weight targets.

3.5 Documents

The documents filed at FORCE (reference No. T210038) are valid for the weighing instruments described here.

4. Interfaces and peripheral equipment

4.1 Interfaces

The QC.. is equipped with the following interfaces,

- Ethernet
- USB

The interface is characterised "Protective interfaces" according to Annex I, paragraph 8.1 in Directive 2014/32/EU.

5. Approval conditions

QC.. is approved for installation in fixed indoor locations.

6. Special conditions for verification

As QC.. cannot weigh statically, the tests during verification have to be dynamically.

7. Securing and location of seals and verification marks

7.1 Securing and sealing

Seals shall bear the verification mark of a notified body or alternative mark of the manufacturer according to ANNEX II, module F or D of Directive 2014/32/EU.

7.1.1 Mechanical sealing

The identification plate shall be secured against removal with a brittle plastic sticker.

The IO1000/APU board and the RS485 load cell module shall be secured against exchange, modifications or dismantling by sealing their cover with wire and seals or with stickers. (See Figure 3 & 4).

The setup and calibration parameters are protected with a dynamic password and any change in them will be shown in the non-resettable error log.

8. Location of CE mark of conformity and inscriptions

8.1 Identification plate

All inscriptions for the instrument shall be placed on the identification plate, which is located on a visible place on the measuring instrument.

8.1.1 CE mark

CE mark and supplementary metrological marking shall be applied to the inscription plate according to article 21 of Directive 2014/32/EU.

8.1.2 Markings on display

The following markings shall be permanently shown near the display,

- Max, Min and e

8.1.3 Markings on inscription plate

The identification plate shall at least bear the following inscriptions:

- Manufacturer's trademark and / or name
- Manufacturer’s postal address
- Type designation
- Serial number
- Accuracy class
- Max, Min and e
- Max speed
- Temperature range: +5 °C to +35 °C
- Electromagnetic class: E2
- Humidity: Non-condensing
- Supply voltage
- Type examination certificate number

9. Pictures

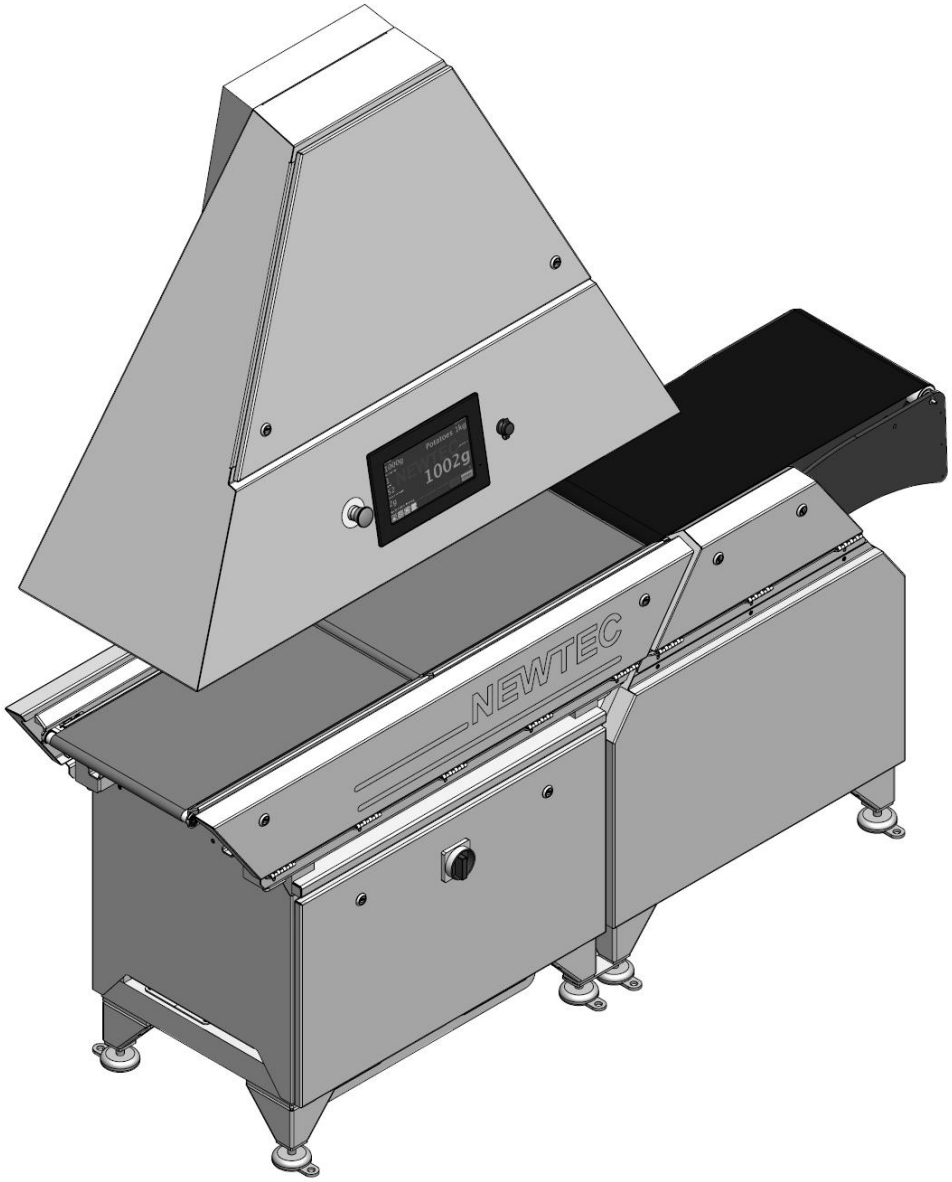

Figure 1 QC90SV-LR automatic checkweigher.

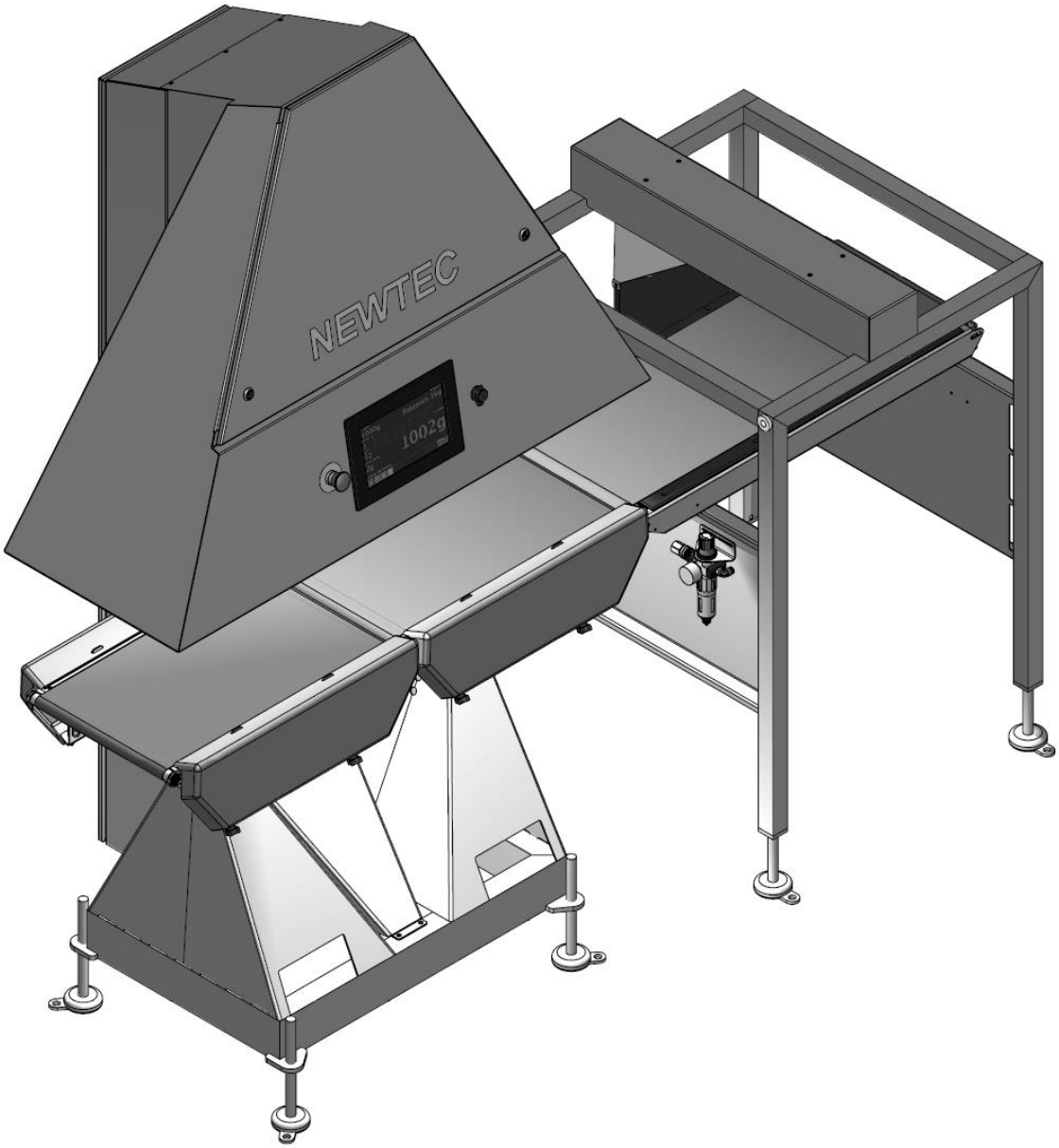

Figure 2 QC90-2-CR-LR automatic checkweigher.

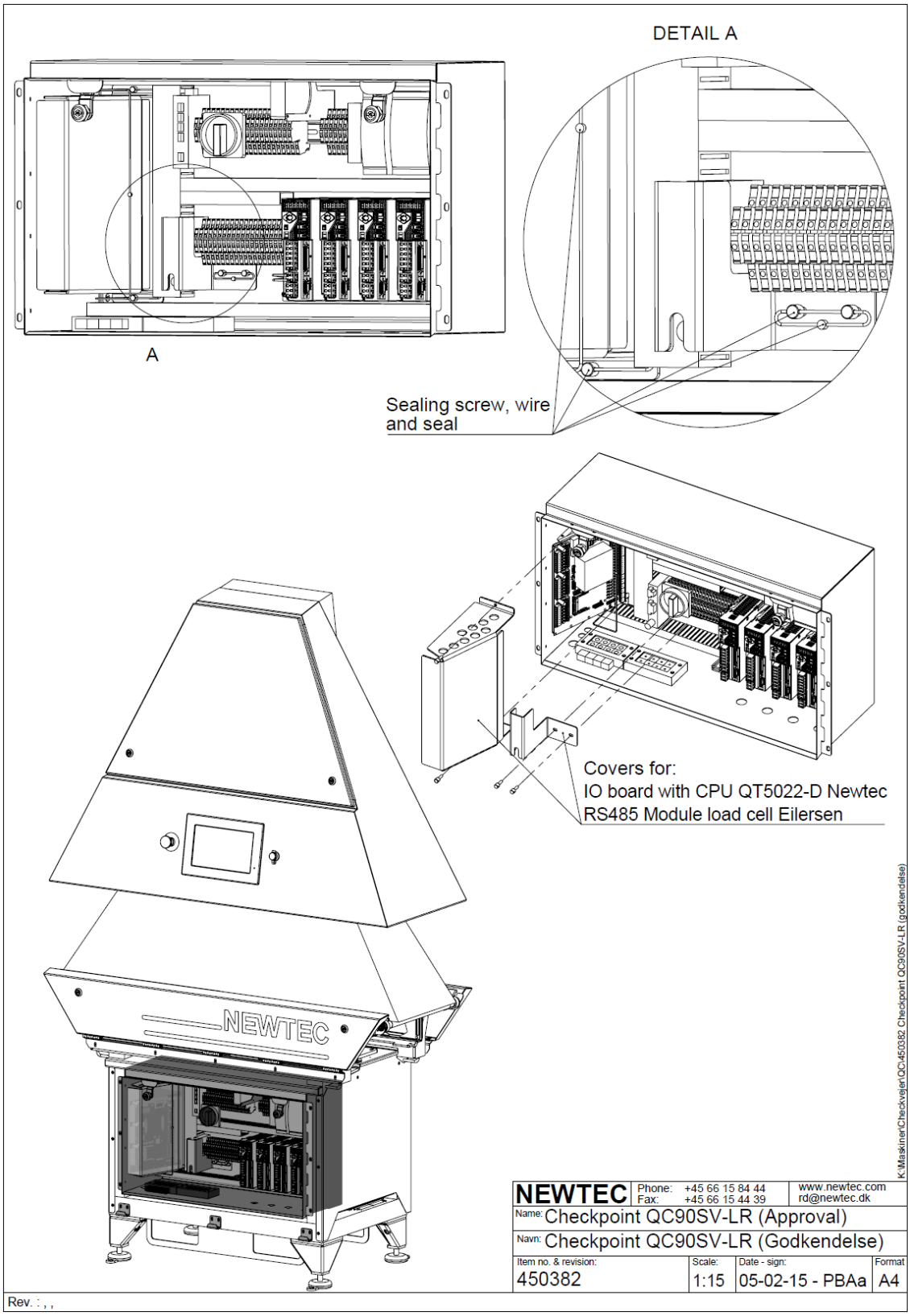

Figure 3 Sealing of IO1000/APU board and RS485 load cell module in QC90SV-LR

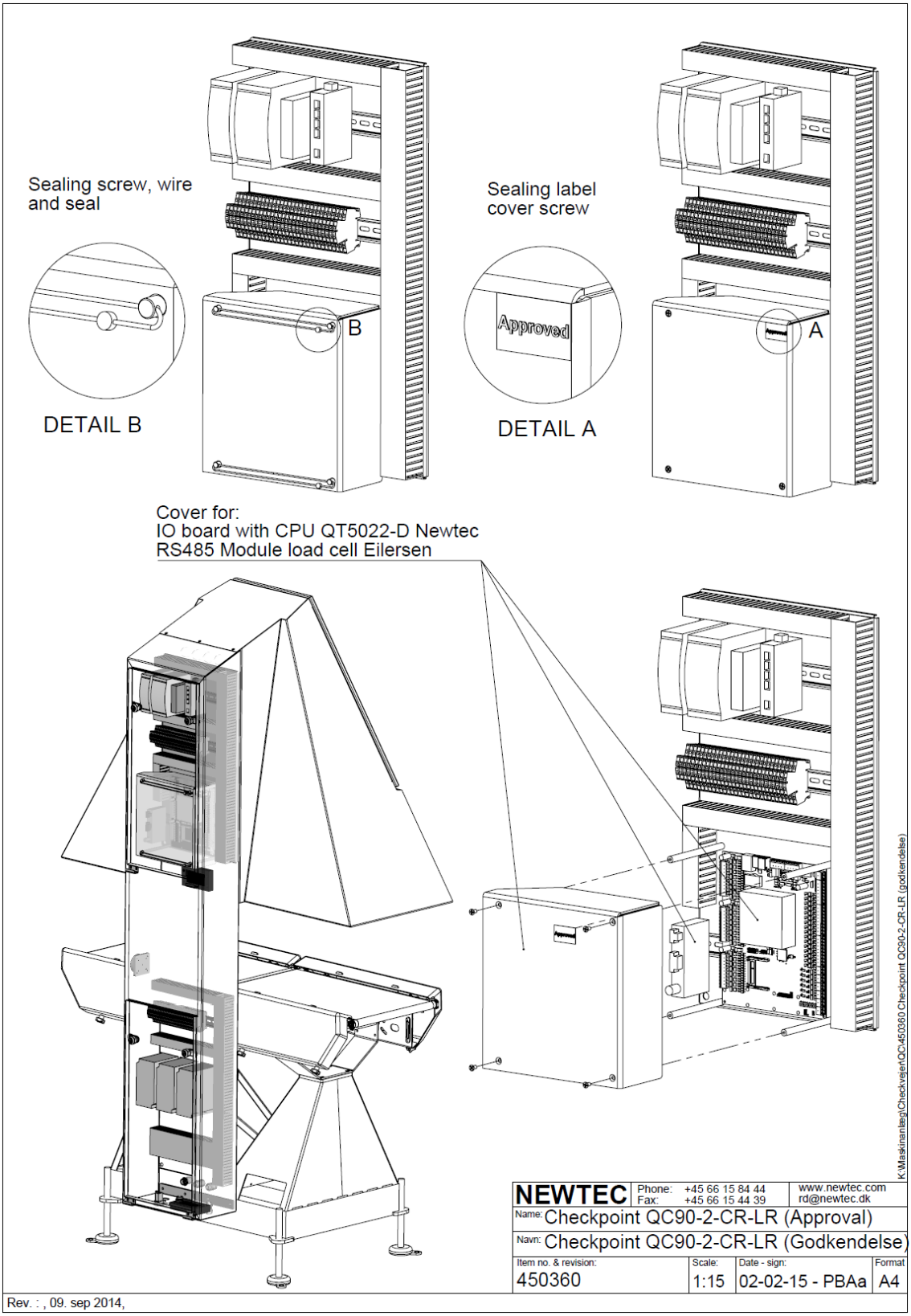

Figure 4 Sealing of IO1000/APU board and RS485 load cell module in QC90-2-CR-LR