



Australian Government

**Department of Industry,
Science and Resources**

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/14G/18

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

Mettler Toledo Garvens Model Cargo S-Line Duplex Automatic Catchweighing Instrument

submitted by Mettler-Toledo Limited
Level 1, 191 Salmon Street
Port Melbourne VIC 3207

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 51, *Automatic Catchweighing Instruments*, dated July 2004.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variant 1 approved – interim certificate issued	24/07/07
1	Pattern and variant 1 re-approved – variant 2 approved – interim certificate issued	11/06/09
2	Pattern and variants 1 & 2 updated – variant 3 approved & variant 4 provisionally-approved – certificate issued	10/08/10
3	Pattern and variants 1 to 3 updated – variant 4 approved – certificate issued (by notification of change)	4/11/10
4	Variant 5 provisionally-approved – interim certificate issued	9/06/11

Document History (cont...)

Rev	Reason/Details	Date
5	Variant 5 updated – notification of change to interim certificate issued	22/09/11
6	Pattern and variants 1 to 5 updated & reviewed – variant 5 approved – certificate issued	25/01/12
7	Variants 6 to 10 approved – certificate issued	24/05/13
8	Variant 11 approved – certificate issued	20/12/17
9	Variant 11 amended – certificate issued	31/08/20
10	Variant 12 provisionally approved – certificate issued	13/10/20
11	Variant 12 (number of instruments amended) provisionally approved – certificate issued	27/10/20
12	Variants 12 to 14 approved – certificate issued	25/11/20
13	Variant 15 approved – certificate issued	06/06/24

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/14G/18' and only by persons authorised by the submittor.

Instruments purporting to comply with this approval and currently marked 'NMI P6/14G/18' may be re-marked '6/14G/18' but only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.



Mario Zamora
A/g Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 6/14G/18

1. Description of Pattern

approved on 24/07/07

A Mettler Toledo Garvens model Cargo S-Line Duplex single interval automatic catchweighing instrument (Figure 1) which is approved for use to weigh certain objects while in motion. Items described as Garvens model ..., or similar may alternatively be known as Mettler Toledo model ..., and vice versa.

Instruments are approved for use over a temperature range of 0°C to +40°C and must be so marked.

Instruments may be fitted with sockets (output interfacing capability) for the connection of peripheral and/or auxiliary devices.

Instruments are intended to be installed in a fixed location.

Note:

Instrument performance may be affected by various installation-related issues such as wind, vibration, and the stability of the mounting. Measures may be required to ameliorate such influences, for example by providing screens against wind.

1.1 Details

The pattern is approved for use as a class Y(a) automatic catchweighing instrument with a maximum capacity of 60 kg and with a verification scale interval (*e*) of 0.1 kg. The instrument has a constant conveyor speed, which may be up to 120 m/min. The instrument has facilities to detect errors and provide error messages for situations outside the speed and package size limits.

The pattern (Figure 1) comprises:

- (a) Two Mettler Toledo model SCC300 weighing units (in series) which each incorporate a motor-driven belt-conveyor type load receptor (Figure 1). Weigher 1 is 600 mm in length while weigher 2 is 1000 mm in length. The SCC300 weighing units operate on the electromagnetic force compensation principle and incorporate an LCC300 load cell. The belt width is 900 mm.
- (b) A Garvens S-series control/indication unit (Figure 1) which is used to set the mode of operation of the instrument and which determines and displays a weight value from signals provided by the weighing units (either individually or in combination). The indicator is an LCD touchscreen and displays the weight in 'kg'. In addition, measurement data may be made available by means of a serial interface (e.g. RS232) to other systems for indication and/or printing.
- (c) Infeed and outfeed conveyors which are provided at each end of the weighing unit to convey parcels onto and away from the weighing unit.

The weighing unit includes optical sensors to detect the package as it travels along the conveyors.

Note: The instrument is only approved in situations where the weight value determined for each item is actually to be used as the basis of a transaction. This may for example be by the value being printed and affixed to the item, or by association of the weight value with identification from the particular item (e.g. by a barcode which individually identifies the item) for later billing – the latter may be appropriate for use in freight/postal situations.

1.2 Zero

The initial zero-setting device of the pattern has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument, capable of setting zero to within $\pm 0.25e$.

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within $0.5e$ of zero.

1.3 Operation

The system is designed to operate in dynamic weighing mode and depending on the length of the parcel, selects the weight output from either weigher 1 or weigher 2 or the combined weight of both weighers and displays it on the control/indication unit. A static non-automatic weighing mode is available for each weigher when the conveyor is stopped.

Optical sensors provide information regarding the position of the package on the conveyor and provide signals via the PLC to initiate weighing operations once the package arrives on the weighing unit/s.

An object to be measured is transported on the customer infeed conveyor. At the end of this infeed conveyor is a sensor (light barrier) that is used to measure the length of the parcel. Once the length is determined by the PLC a signal is sent to the control/indication unit to provide the weight from the appropriate weigher/s.

If the length of the parcel is less than or equal to 400 mm then the weight value from weigher 1 is selected and displayed. If the length of the parcel is from 401 mm to 800 mm then the weight value from weigher 2 is selected and displayed. If the length of the parcel is from 801 mm to the maximum of 1200 mm then the weight value from both weighers are summed and displayed.

After weighing, the object continues on to an outfeed conveyor while the weight is displayed on the control/indication unit. Up to ten previous weight results are displayed simultaneously. If a weight is found to be in error (for example exceeding the maximum capacity) four asterisks (****) are displayed, and a weight value is not recorded or printed.

1.4 Verification Provision

Provision is made for a verification mark to be applied.

1.5 Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Mettler Toledo Garvens GmbH, Germany
Importer's mark, or name written in full	Mettler Toledo Limited
Model designation
Serial number
Accuracy class	Y(a)
Pattern approval mark	6/14G/18
Maximum capacity	<i>Max</i> kg (*)
Minimum capacity	<i>Min</i> kg (*)
Verification scale interval	<i>e</i> =..... kg (*)
Maximum conveyor speed m/min
Special temperature limits	0°C to +40°C

- (*) These markings are also shown near the display of the result if they are not already located there.

1.6 Sealing Provision

Provision is made for the calibration adjustments of the instrument to be sealed. A non-resettable counter is incremented whenever an adjustment of the instrument occurs.

The counter value can be accessed by pressing and holding the zero setting key until the counter is shown, i.e. as "APPROVAL CODE = ...".

The counter value at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (other similar methods for recording the value may also be acceptable).

Any subsequent alteration to the calibration or parameters will be evident as the recorded value and the current calibration event counter value will differ.

In addition, calibration adjustments are carried out via an external keyboard connected to the MF-2 socket mounted on the rear cover of the Garvens S-series control/indication unit and internal access within the unit may also permit calibration adjustments.

Access to the MF-2 socket may be sealed, by means such as a destructible adhesive label (Figure 2a), and access to within the unit may be sealed by applying a destructible adhesive label(s) on opposite sides of the cover plate at the rear of the housing.

Check that the boxed 'e' symbol (Figure 2b) appears on the display to indicate that the instrument is in 'approved' mode.

2. Description of Variant 1

approved on 24/07/07

Certain single conveyor Cargo S-line instruments using the Mettler Toledo SCC300 weighing unit (which incorporates an LCC300 load cell, as described for the pattern), with conveyor lengths from 600 mm to 1500 mm, conveyor widths up to 1000 mm, and having maximum weighing capacities from 30 kg to 120 kg.

Instruments may have a maximum of 1200 verification scale intervals (with the verification scale interval being in the series ... 0.05, 0.1, 0.2, 0.5 ... kg).

3. Description of Variant 2

approved on 11/06/09

The pattern and variants used with an alternative Garvens (or Mettler Toledo) model XE (Figure 3a) or a model XS (Figure 3b) control/indication unit. These control/indication units are similar to the S-series control/indication unit described for the pattern, however they incorporate internal electronic changes, have differing sealing arrangements, and utilise different size touchscreen displays – model XE has a 14.5 cm display (5.7”), and model XS has a 38 cm display (15”). The model XE control/indication unit is for use only with systems having a single conveyor.

3.1 Sealing Provision (Variant 2)

Provision is made for the calibration adjustments of the instrument to be sealed. A non-resettable counter is incremented whenever an adjustment of the instrument occurs.

The counter value can be accessed (from the normal weighing mode) by selecting the ‘menu’ button, then the ‘information’ button, and then the ‘metrological’ option. The counter is then shown, i.e. as “APPROVAL CODE = ...”.

The counter value at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (other similar methods for recording the value may also be acceptable).

Any subsequent alteration to the calibration or parameters will be evident as the recorded value and the current calibration event counter value will differ.

In addition, to carry out calibration adjustments it is necessary to insert a special ‘service dongle’ into one of the USB ports of the XS or XE control/indication units.

Access to calibration may be sealed, by means such as a destructible adhesive label(s) covering access to the USB ports. The USB ports may be provided in differing locations on the control/indication unit, but should be sealed wherever located.

Check that the boxed ‘e’ symbol (Figure 2b) appears on the display to indicate that the instrument is in ‘approved’ mode.

4. Description of Variant 3

approved on 10/08/10

The pattern and variants used with the alternative Garvens (or Mettler Toledo) model ‘IND 439’ control/indication unit which has a keypad for operation, and LCD display for indication (Figure 4a). The instrument may now also known as a model ‘IND 439 Cargo’ or ‘IND 439 100’ indicating the software with which the indicator is fitted.

Note: The IND 439 has a tare key on its keyboard, however this is not operational (the instrument does not have a tare function).

4.1 Sealing Provision (Variant 3)

Provision is made for the calibration adjustments of the instrument to be sealed. A non-resettable counter is incremented whenever an adjustment of the instrument occurs.

The counter value can be accessed by pressing and holding the zero setting key until the counter is shown, i.e. as “IDENTCODE = ...”.

The counter value at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (other similar methods for recording the value may also be acceptable).

Any subsequent alteration to the calibration or parameters will be evident as the recorded value and the current calibration event counter value will differ.

Sealing of the internal components and calibration switch within the unit is achieved by applying a destructible adhesive label over one of the retaining screws holding the base cover (underneath the unit) to the housing, typically as shown in Figure 4b.

5. Description of Variant 4 **approved on 4/11/10**

Single conveyor Cargo S-line instruments similar to those described in variant 1, using control indication units as described for the pattern or variants, but using a Mettler Toledo LCC600 weighing unit (which incorporates an SCC600 load cell operating on the electromagnetic force principle) and having conveyor length from 1500 mm to 2200 mm, with belt width of up to 1300 mm.

The instruments have maximum weighing capacities from 60 kg to 120 kg.

Instruments may have a maximum of 1200 verification scale intervals (with the verification scale interval being in the series ... 0.05, 0.1, 0.2, 0.5 ... kg).

6. Description of Variant 5 **approved on 25/01/12**

The pattern and variants used with an alternative Garvens (or Mettler Toledo) model TLX control/indication unit (Figure 5). The TLX control/indication unit is similar to the S-series control/indication unit described for the pattern and variants, however it has a model X-terminal-IPC and an HMI touchscreen display (17"), uses OCTO data capture software (Figure 6a) and has differing sealing arrangements. The model TLX control/indication unit is for use only with systems having a single conveyor.

6.1 Sealing Provision (Variant 5)

Provision is made for the configuration and calibration adjustments of the instrument to be sealed.

The instrument automatically increments a configuration and/or calibration counter value each time the instrument is re-configured and/or calibrated.

The counter values can be accessed (from the normal weighing mode) by touching the logo 'METTLER TOLEDO' or 'Octo DataCapture' on the HMI screen. The counter is then shown under 'Xconnector version', i.e. as "LOADCELL APPROVAL CODE = ..." and "LOADCELL CALIBRATION CODE = ...".

The counter values at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (other similar methods for recording the value may also be acceptable).

Any subsequent alteration to the calibration or parameters will be evident as the recorded value and the current event counter value will differ (Figure 6b).

In addition, to carry out calibration adjustments it is necessary to insert a special 'service dongle' into one of the USB ports of the X-terminal-IPC unit.

Access to calibration may be sealed, by means such as a destructible adhesive label covering access to the USB ports (Figure 7).

Check that the text 'loadcell sealed =yes' under 'Xconnector version' to indicate that the instrument is in 'approved' mode (Figure 6b).

Note: To access the latest sealing information it is necessary to restart the instrument by touching Menu>Quit>Restart OctoCSM.

7. Description of Variant 6**approved on 24/05/13**

Certain single conveyor Cargo S-line instruments using the Mettler Toledo DMS20 weighing unit (which incorporates a DMS20 load cell, as described for the pattern), with conveyor lengths from 250 mm to 400 mm, conveyor widths up to 300 mm, and having maximum weighing capacities from 3 kg to 6 kg.

The instrument has a constant conveyor speed, which may be up to 50 m/min.

Instruments may have a maximum of 6000 verification scale intervals (with the verification scale interval being in the series 0.001, 0.002, 0.005, ... kg).

Instruments may have an alternative Garvens (or Mettler Toledo) model XE (Figure 3a) or a model XS (Figure 3b) control/indication unit.

8. Description of Variant 7**approved on 24/05/13**

Certain single conveyor Cargo S-line instruments using the Mettler Toledo SCC150 weighing unit (which incorporates an LCC150 load cell, as described for the pattern), with conveyor lengths from 600 mm to 1000 mm, conveyor widths up to 500 mm, and having maximum weighing capacities from 10 kg to 30 kg.

The instrument has a constant conveyor speed, which may be up to 27 m/min.

Instruments may have a maximum of 2000 verification scale intervals (with the verification scale interval being in the series 0.01, 0.02, 0.05, 0.1 ...kg).

Instruments may have an alternative Garvens (or Mettler Toledo) model XE (Figure 3a) or a model XS (Figure 3b) control/indication unit.

9. Description of Variant 8**approved on 24/05/13**

Certain single conveyor Cargo S-line instruments using the Mettler Toledo LB60 weighing unit (which incorporates an LB60 load cell, as described for the pattern), with conveyor lengths from 600 mm to 800 mm, conveyor widths up to 500 mm, and having maximum weighing capacities from 6 kg to 12 kg.

The instrument has a constant conveyor speed, which may be up to 27 m/min.

Instruments may have a maximum of 2000 verification scale intervals (with the verification scale interval being in the series 0.001, 0.002, 0.005, 0.01 ...kg).

Instruments may have an alternative Garvens (or Mettler Toledo) model XE (Figure 3a) or a model XS (Figure 3b) control/indication unit.

10. Description of Variant 9**approved on 24/05/13**

The pattern and variants used with an alternative Garvens (or Mettler Toledo) model XC control/indication unit (Figure 8) which is similar to the S-series XE control/indication unit.

Instruments may be fitted with an integrator's PC and labelling software for printing and label applications.

The model XC control/indication unit is for use only with systems having a single conveyor.

10.1 Sealing Provision (Variant 9)

Provision is made for the calibration adjustments of the instrument to be sealed.

A non-resettable counter is incremented whenever an adjustment of the instrument occurs.

The counter value can be accessed by selecting the 'e' symbol button from any screen mode. The counter is then shown, i.e. as 'CALIBRATION CODE = ...'. The counter value at the time of verification shall be recorded on a destructible adhesive label attached to the instrument (other similar methods for recording the value may also be acceptable).

Any subsequent alteration to the calibration or parameters will be evident as the recorded value and the current calibration event counter value will differ.

In addition, to carry out calibration adjustments it is necessary to insert a special 'service dongle' into one of the USB ports of the XC control/indication units.

Access to calibration may be sealed, by means such as a destructible adhesive label(s) covering access to the USB ports and flash memory slot. The USB ports and flash memory slot may be provided in differing locations on the control/indication unit, but should be sealed wherever located.

Check that the boxed 'e' symbol (Figure 2b) appears on the display to indicate that the instrument is in 'approved' mode.

11. Description of Variant 10

approved on 24/05/13

The pattern and variants used with the alternative Garvens (or Mettler Toledo) 'ICS 4x9d' or 'ICS 6x9d' series control/indication unit which has a keypad for operation, and LCD display for indication (Figure 9). The instrument may now also known as a model 'ICS 4x9d-Cargo' or 'ICD 6x9d-Cargo' indicating the software with which the indicator is fitted.

Note: The ICS 4x9d and ICS6x9d have a tare key on its keyboard, however this is not operational (the instrument does not have a tare function).

Instruments may be fitted with an integrator's PC and labelling software for printing and label applications.

11.1 Sealing Provision (Variant 10)

The instrument is sealed by preventing access to the calibration screw. This may be achieved by applying a destructible adhesive label on top of the hollow cylinder housing the calibration screw as shown Figure 10.

12 Description of Variant 11

**approved on 20/12/17
amended on 31/08/20**

The pattern and variants 2, 6, 7, 8, 9, and 10 may be fitted with following Mettler Toledo Garvens C-Series control/indication unit as alternative to Garvens (or Mettler Toledo) model XE, model XS, 'ICS 4x9d, and 'ICS 6x9d' control/indication unit.

- Mettler Toledo Garvens C31 7" control/indication unit (Figure 11a) is the alternative of Garvens (or Mettler Toledo) model XE control/indication unit.
- Mettler Toledo Garvens C33 7" or 12" control/indication unit (Figure 11b) is the alternative of Garvens (or Mettler Toledo) model XE control/indication unit.

- Mettler Toledo Garvens C35 15" control/indication (Figure 11c) is the alternative of Garvens (or Mettler Toledo) model XS control/indication unit.
- Mettler Toledo Garvens model C21 Cargo 7" control/indication (Figure 11d) is the alternative of Garvens (or Mettler Toledo) 'ICS 4x9d' used in variant 10. May also be known as model TLW250.
- Mettler Toledo Garvens model C23 Cargo 7" or 12" control/indication (Figures 11e) is the alternative of Garvens (or Mettler Toledo) model 'ICS 6x9d' control/indication unit used in variant 10. The Mettler Toledo Garvens model C23 Cargo 7" control/indication unit may also be known as model TLW450.

The Mettler Toledo Garvens C-Series control/indication unit is similar to the S-series control/indication unit described for the pattern, and there is no metrological changes to hardware and software.

The naming conventions of Mettler Toledo Garvens C-Series instrument is as follows.

- C = Checkweigher
- X = X-Rays
- V = Vision
- M = Metal Detection
- CM = Checkweigher Metal Detection combination system (Figure 11f, 11g)
- CX = Checkweigher X-Ray combination system
- CV = Checkweigher Vision combination system
- TLW = Transport Logistics Weighing

13. Description of Variant 12 **provisionally approved on 13/10/20**
approved on 25/11/20

The Mettler Toledo Garvens model C23 TLW450 Cargo class Y(a) automatic catchweighing instruments comprising a Mettler Toledo Garvens model C23 Cargo 7" or 12" control/indication unit and a Mettler Toledo model MTB100 TLW weighing unit (which incorporates four Mettler Toledo model MTB100 100 kg C3 load cells with one 'Sonic Junction Box Type G' analogue data processing device) as shown in Figures 12a and 12b, with conveyor lengths from 600 mm to 1700 mm, conveyor widths up to 1100 mm, and having maximum weighing capacities from 40 kg to 80 kg.

The instrument operates in dynamic weighing mode (i.e. with the objects being weighed whilst the belt of the weighing conveyor is moving) and has a constant conveyor speed, which may be up to 60 m/min.

Instruments may have a maximum of 1200 verification scale intervals (with the verification scale interval being in the series 0.05, ... kg).

14. Description of Variant 13 **approved on 25/11/20**

The Mettler Toledo Garvens model C21 TLW250 Cargo class Y(a) automatic catchweighing instruments which are similar to variant 12 but having a Mettler Toledo Garvens model C21 Cargo 7" control/indication unit.

15. Description of Variant 14**approved on 25/11/20**

The Mettler Toledo Garvens model XS 100 class Y(a) automatic catchweighing instruments (Figure 13) which are similar to variant 12 but having a Mettler Toledo Garvens model XS 15" control/indication unit (Figure 3b).

16. Description of Variant 15**approved on 06/06/24**

The Mettler Toledo Garvens model C23 class Y(a) automatic catchweighing instruments (Figure 14) comprising a Mettler Toledo Garvens model C23 Cargo 7" or 12" control/indication unit (Figures 11d and 11e) and a Mettler Toledo model MTB50 weighing unit (which incorporates four Mettler Toledo model MTB50 50 kg C3 or MTB50 50 kg C6 load cells with one 'Sonic Junction Box Type G' analogue data processing device) as shown in Figures 12a and 12b, with conveyor lengths from 500 mm to 1700 mm, conveyor widths from 300 mm to 1100 mm, and having maximum weighing capacities from 6 kg to 40 kg.

The instrument operates in dynamic weighing mode (i.e. with the objects being weighed whilst the belt of the weighing conveyor is moving) and has a constant conveyor speed, which may be up to 60 m/min.

Instruments may have a maximum of 1200 verification scale intervals (with the verification scale interval being in the series 0.005, ... kg).

Instruments are approved for use over a temperature range of 0 °C to +40 °C, and must be so marked.

Instruments may also be fitted with following Mettler Toledo Garvens C-Series control/indication unit:

- Mettler Toledo Garvens C31 7" control/indication unit (Figure 11a);
- Mettler Toledo Garvens C33 7" or 12" control/indication unit (Figure 11b);
- Mettler Toledo Garvens C35 15" control/indication (Figure 11c);
- Mettler Toledo Garvens model C21 Cargo 7" control/indication (Figure 11d).

TEST PROCEDURE No 6/14G/18

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

A. Non-automatic (static) Operation

- With the conveyor switched off, carry out a load test and an eccentricity test.

B. Automatic Operation

- Prepare two test objects, one close to minimum capacity and the other close to the maximum capacity. The uncertainty of the test objects shall be equal to or better than $0.5e$.
- The tests shall be conducted at the maximum rate at which the system will operate (i.e. introduce packages immediately after each other).
- Vary the position of the test objects across the load receptor.
- Conduct a test to ensure incorrect measurements do not occur due to items being provided to the instrument without adequate spacing.

TESTS – Use the following tests to determine compliance with the maximum permissible errors – n is a whole number.

TEST 1 – Maximum permissible error = $\pm 1.5e$

Test load = ne

Readings:	A: $(n - 2)e$	reject
	B: $(n + 2)e$	reject
	$A < \text{Readings} < B$	accept

TEST 2 – Maximum permissible error = $\pm 2e$

Test load = $(n + 0.5)e$

Readings:	A: $(n - 2)e$	reject
	B: $(n + 3)e$	reject
	$A < \text{Readings} < B$	accept

TEST 3 – Maximum permissible error = $\pm 2.5e$

Test load = ne

Readings:	A: $(n - 3)e$	reject
	B: $(n + 3)e$	reject
	$A < \text{Readings} < B$	accept

FIGURE 6/14G/18 – 1

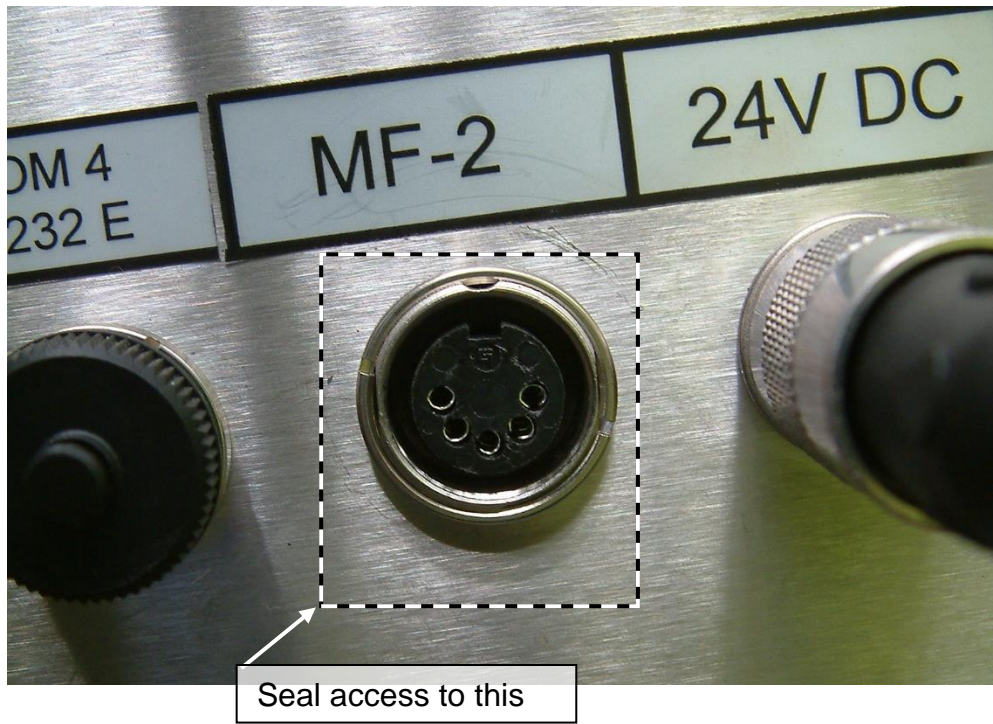


(a) Mettler Toledo Garvens Model Cargo S-Line Duplex Catchweighing Instrument



(b) Mettler Toledo Garvens S-series Control/Indication Unit

FIGURE 6/14G/18 – 2



(a) Sealing of S-series Control/Indication Unit



(b) Protection of Metrological Parameters

FIGURE 6/14G/18 – 3



(a) Mettler Toledo/Garvens Model XE Control/Indication Unit



(b) Mettler Toledo/Garvens Model XS Control/Indication Unit Front Screen

FIGURE 6/14G/18 – 4



(a) Mettler Toledo/Garvens Model IND 439 Control/Indication Unit



(b) Sealing of IND 439 Control/Indication Unit

FIGURE 6/14G/18 – 5

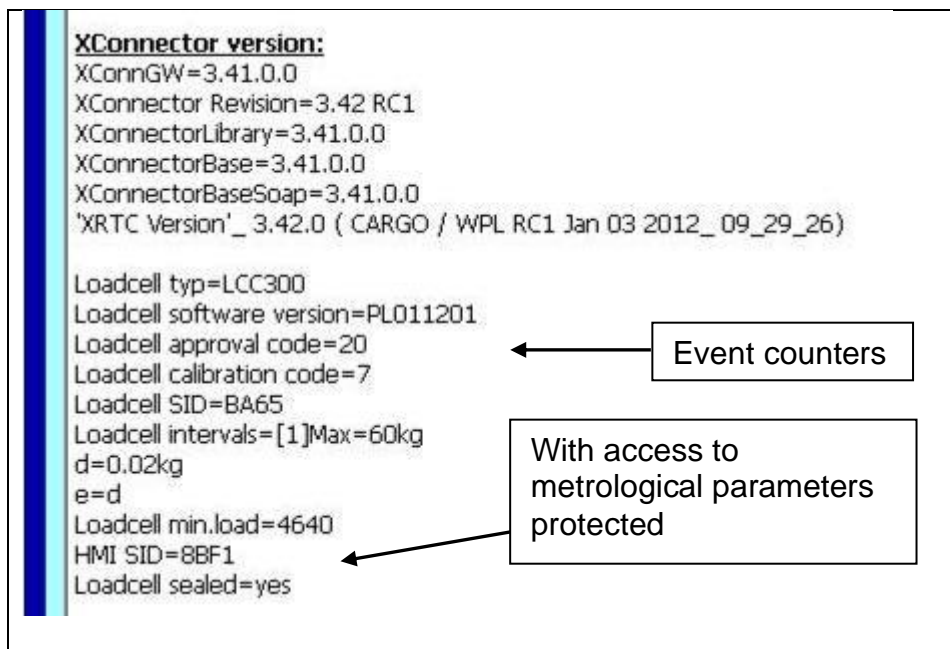


With An Alternative Garvens (Or Mettler Toledo) Model TLX Control/Indication Unit
(Variant 5)

FIGURE 6/14G/18 – 6

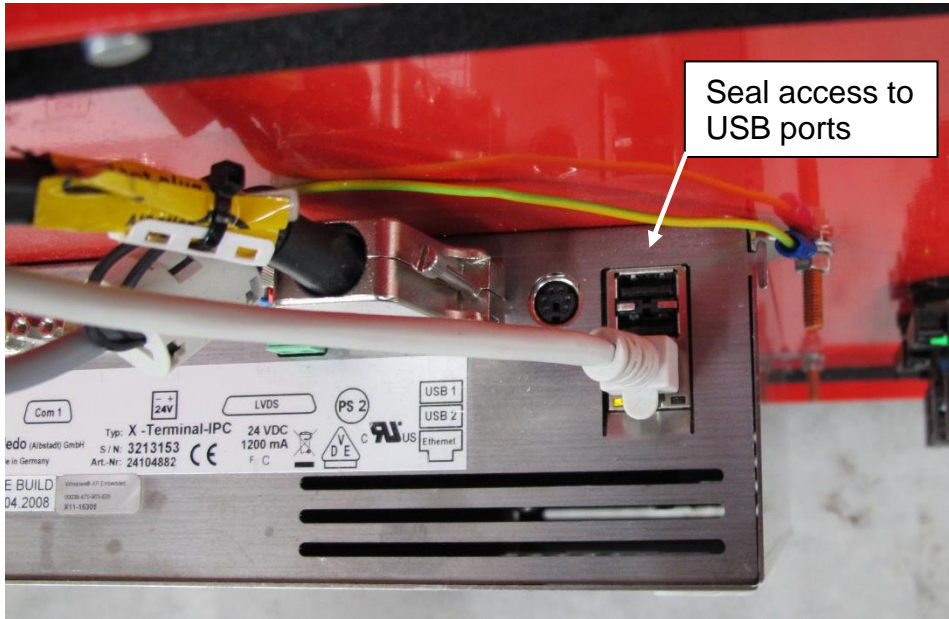


(a) Mettler Toledo/Garvens Model Octo Control/Indication Unit Front Screen



(b) Showing Event Counters and Sealing Information – Variant 5

FIGURE 6/14G/18 – 7



Sealing of USB Ports – Variant 5

FIGURE 6/14G/18 – 8



Alternative Garvens (or Mettler Toledo) Model XC Control/Indication Unit

FIGURE 6/14G/18 – 9



Alternative Garvens (or Mettler Toledo) 'ICS 4x9d' or ICS 6x9d' Series
Control/Indication Unit

FIGURE 6/14G/18 – 10



Apply Seal

Sealing Calibration Screw – Variant 10

FIGURE 6/14G/18 – 11



(a)
Mettler Toledo C31 & C33 (7") Terminal

(b)
Mettler Toledo C33 (12") Terminal



(c)
Mettler Toledo C35 (15") Terminal



(d)
Mettler Toledo C21 & C23 Cargo (7") Terminal



(e)
Mettler Toledo C23 Cargo (12") Terminal



(f)
CM33 Catchweigher with metal detector



(g)
CM35 Catchweigher with metal detector

FIGURE 6/14G/18 – 12



(a) Mettler Toledo/Garvens TLW Weighing Unit



(b) Mettler Toledo/Garvens Sonic Junction Box Type G Analogue Data Processing Device

FIGURE 6/14G/18 – 13



Mettler Toledo/Garvens Model XS 100 Catchweighing Instrument
(Variant 14)

FIGURE 6/14G/18 – 14



Mettler Toledo/Garvens Model C23 Catchweighing Instrument
(Variant 15)

~ End of Document ~