



Australian Government  
Department of Industry and Science

**National  
Measurement  
Institute**

**Certificate of Approval**

**NMI 6/4C/304**

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.

Precia Molen Model X112-A Weighing Instrument

submitted by   Precia SA  
                    BP 106  
                    07001   Privas  
                    France

**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 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on 1/10/22, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – certificate issued	13/09/17

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/304' and only by persons authorised by the submitter.

It is the submitter'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 Certificate 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*.



**Darryl Hines**

TECHNICAL SCHEDULE No 6/4C/304

**1. Description of Pattern** **approved on 13/09/17**

A Precia Molen model X112-A class  $\text{III}$  single interval self-indicating non-automatic weighing instrument (Figure 1a) of 30 kg maximum capacity with a verification scale interval of 0.01 kg.

Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless the maximum capacity of the instrument is greater than 100 kg (i.e. as may be the case for variant 1).

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

**1.1 Basework**

The Precia Molen model X112-A basework (Figure 1b) has the load receptor directly supported by a single load cell. The load receptor has a nominal dimension of 500 mm × 400 mm, and typically uses a stainless steel construction.

**1.2 Load cell**

A Flintec model PC1-50kg-C3 load cell of 50 kg maximum capacity is used.

**1.3 Indicator**

A Precia Molen model i20 digital indicator having a stainless steel enclosure is used. The indicator is described in the documentation of approval NMI S669.

The indicator may be located remotely.

**1.4 Zero**

A zero-tracking device may be fitted.

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.

Instruments have a combined semi-automatic zero-setting and subtractive tare balancing device.

**1.5 Tare**

A semi-automatic subtractive tare device of up to maximum capacity may be fitted.

**1.6 Display Check**

A display check is initiated whenever power is applied.

**1.7 Power Supply**

Power for the Precia Molen Model X112-A instruments may be supplied by:

- 230 V mains AC power; and/or
- an internal 24 V Li-ion rechargeable battery.

**1.8 Levelling**

The instrument is provided with adjustable feet and a level indicator.

The instrument is to be used in a level condition as indicated by the level indicator.

## 1.9 Additional Features

The indicator also has certain additional functions (e.g. counting, tolerance checking, formulation, calculation and batching totalisation). The additional functions are not approved for trade use.

### 1.10 Interfaces

The indicator may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R 76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with NMI General Supplementary Certificate No S1/0B (in particular in regard to the data and its format).

Indications other than the indications of measured mass (i.e. gross, tare, net, totals) displayed either on the indicator or on an auxiliary or peripheral device, are not for trade use.

Instruments may be fitted with RS-232, RS485, and/or Ethernet interfaces.

### 1.11 Software

The software version is identified as 'V2xy', where 'x' and 'y' each represent a number between 0 and 255. 'V2' represents the legally relevant part of software.

The software version and number can be seen in the switch-on display sequence when the power is first applied to the instrument.

### 1.12 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Precia Molen
Indication of accuracy class	Ⓜ
Pattern approval number for the instrument	NMI 6/4C/304
Maximum capacity	<i>Max</i> ..... g or kg #1
Minimum capacity	<i>Min</i> ..... g or kg #1
Verification scale interval	<i>e</i> = ..... g or kg #1
Maximum subtractive tare	<i>T</i> = - ..... g or kg #2
Serial number of the instrument	.....

#1 These markings are also shown near the display of the result if they are not already located there.

#2 This marking is required if *T* is not equal to *Max*.

In addition, instruments shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording (see 1. *Description of Pattern* above).

### 1.13 Verification Provision

Provision is made for the application of a verification mark.

### 1.14 Sealing Provision

Sealing of the instrument is as described in the approval documentation for the indicator used.

### 2. Description of Variant 1

approved on 13/09/17

The Precia Molen X112-A series instruments in certain other single interval capacities as listed in Table 1 and as shown in Figures 1a and 1b (the pattern is shown in **bold**):

TABLE 1

Maximum Capacity ( <i>Max</i> )	Verification Scale Interval ( <i>e</i> )	Platform Size	Load Cell Maximum Capacity ( <i>E<sub>max</sub></i> )
3 kg	0.001 kg	325 x 225 mm	Flintec PC1-7.5kg-C3 7.5 kg
6 kg	0.002 kg	325 x 225 mm	Flintec PC1-10kg-C3 10 kg
15 kg	0.005 kg	325 x 225 mm	Flintec PC1-30kg-C3 30 kg
<b>30 kg</b>	<b>0.01 kg</b>	<b>400 x 400 mm</b> <b>500 x 400 mm</b>	<b>Flintec PC1-50kg-C3</b> <b>50 kg</b>
60 kg	0.02 kg	400 x 400 mm 500 x 400 mm 600 x 600 mm	Flintec PC1-100kg-C3 100 kg
150 kg	0.05 kg	400 x 400 mm 500 x 400 mm 600 x 600 mm	Flintec PC1-200kg-C3 200 kg

### 3. Description of Variant 2

approved on 13/09/17

The Precia Molen X112-A series instruments which are similar to the pattern but use a Zemic model L6D or HBM model SP4M load cell in certain single interval capacities as listed in Table 2. The instrument has a Precia Molen model i20 indicator integrated into the instrument body (Figure 2).

TABLE 2

Maximum Capacity ( <i>Max</i> )	Verification Scale Interval ( <i>e</i> )	Platform Size	Load Cell Maximum Capacity ( <i>E<sub>max</sub></i> )
1.5 kg	0.0005 kg	240 x 200 mm	Zemic L6D C3 3 kg
1.5 kg	0.0005 kg	240 x 200 mm	HBM SP4M C3 3 kg
3 kg	0.001 kg	240 x 200 mm	Zemic L6D C3 6 kg
6 kg	0.002 kg	240 x 200 mm	Zemic L6D C3 15 kg
20 kg	0.005 kg	240 x 200 mm	Zemic L6D C4 30 kg

#### **4. Description of Variant 3**

**approved on 13/09/17**

The pattern and variants 1 to 2 having a Precia Molen model i5 digital indicator with an ABS plastic enclosure (Figure 3). The model i5 digital indicator is described in the documentation of approval NMI S725.

##### **4.1 Software**

The software is designated v1.x.y, where x.y refers to the identification of non-legally relevant software.

The software version and number can be seen in the switch-on display sequence when the power is first applied to the instrument.

##### **4.2 Sealing Provision**

Sealing of the instrument is as described in the approval documentation for the indicator used.

### **TEST PROCEDURE**

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

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

#### **Maximum Permissible Errors**

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

FIGURE 6/4C/304 – 1



(a) Precia Molen Model X112-A Weighing Instrument (Pattern & Variant 1)



(b) Precia Molen Model X112-A Basework Mounting Frame (Pattern & Variant 1)

FIGURE 6/4C/304 – 2



Precia Molen Model X112-A Weighing Instrument (Variants 2)

FIGURE 6/4C/304 – 3



Precia Molen Model i5 Indicator (Variant 3)

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