

National Standards Commission



Certificate of Approval

No 6/4C/70

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

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

Sartorius Model X1493-XA7Y201 Weighing Instrument

submitted by Sartorius AG
Weender Landstrasse 94 - 108
D-3400 Gottingen Germany.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/7/96.
This approval expires in respect of new instruments on 1/7/97.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/70 and 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 Commission 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 the Commission's Document 106.

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

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 11/6/91

A Sartorius model X1493-XA7Y201 class II self-indicating weighing instrument of 6100 g maximum capacity.

Technical Schedule No 6/4C/70 describes the pattern.

Variants: approved 3/11/92

1. Certain models of the LC series.
1. Certain models of the BA and GA series.

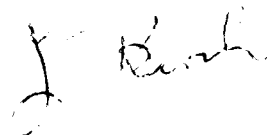
Technical Schedule No 6/4C/70 Variation No 1 describes variants 1 and 2.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/4C/70 dated 15/12/92
Technical Schedule No 6/4C/70 dated 26/11/91 (incl. Test Procedure)
Technical Schedule No 6/4C/70 Variation No 1 dated 15/12/92 (incl. Table 1)
Figure 1 dated 26/11/91
Figures 2 and 3 dated 15/12/92

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.





National Standards Commission

TECHNICAL SCHEDULE No 6/4C/70

VARIATION No 1

Pattern: Sartorius Model X1493-XA7Y201 Weighing Instrument.

Submittor: Sartorius AG
Weender Landstrasse 94 - 108
D-3400 Gottingen Germany.

1. Description of Variants

1.1 Variant 1

Various models of the Sartorius LC series of class II self-indicating weighing instruments as listed in Table 1, including the model LC12000S (Figure 2) and some where the value of the differentiated scale interval (d) varies automatically according to the load applied (LC2200P and LC12000P).

Instruments have the features of the pattern, and may also be fitted with a facility to configure the instrument with another mass unit or display, as follows:

- (a) kg or CM (ct).
- (b) Various other units including lb and gr - if the other mass unit is any unit other than g, kg or CM (ct), the instrument shall be marked "lb ... gr (as applicable) not for trade use" or "lb ... gr (as applicable) for export use only". The scale interval, verification scale interval, maximum capacity and minimum capacity when used with these units (and kg, or CM) shall be marked in the vicinity of the reading face. The markings of the primary units shall be given in grams.

Instruments may also be fitted with a number of management functions which are not approved for trade use, including 'Counting', 'Percentage' and 'Over/Under'.

1.2 Variant 2

Various models of the Sartorius BA and GA series of class II self-indicating weighing instruments as listed in Table 1, including the model BA2100S (Figure 3). Instruments have some of the features of the LC series instruments.

TABLE 1

Model	LC420	LC820	LC2200	LC2200S	LC4200	LC6200	LC12000S
Maximum capacity (g)	420	820	2200	2200	4200	6200	12000
Verification scale interval, e (g)	0.1	0.1	1	0.1	1	1	1
Scale interval, d (g)	0.01	0.01	0.1	0.01	0.1	0.1	0.1
Model	LC2200P			LC12000P			
Maximum capacity (g)	2200			12000			
Verification scale interval, e (g)	0.1			1			
Scale interval, d up to (....) (g)	0.01 (400) 0.02 (800) 0.05 (2200)			0.1 (3000) 0.2 (6000) 0.5 (12000)			
Model	BA610	GA1200S-G	BA2100S GA2100S-G	BA4100 GA6100-G	BA6100 GA6100-G		
Maximum capacity (g)	610	1200	2100	4100	6100		
Verification scale interval, e (g)	0.1	0.1	0.1	1	1		
Scale interval, d (g)	0.01	0.01	0.01	0.1	0.1		

Approved Instruments - Variant 1



National Standards Commission

TECHNICAL SCHEDULE No 6/4C/70

Pattern: Sartorius Model X1493-XA7Y201 Weighing Instrument.

Submittor: Sartorius AG
Weender Landstrasse 94 - 108
D-3400 Gottingen Germany.

1. Description of Pattern

A Sartorius model X1493-XA7Y201 class II self-indicating weighing instrument (Figure 1) of 6100 g maximum capacity with a verification scale interval (e) of 1 g and a scale interval (d) of 0.1 g. The instrument may be fitted with output sockets for the connection of peripheral and/or auxiliary devices. The instrument is approved for use over a temperature range of 10°C to 30°C, and must be so marked.

1.1 Zero and Tare

Zero setting and taring are accomplished by means of a common button that sets zero to within $\pm 0.25e$, as indicated by the right-hand digit (d) which is differentiated.

Tare capacity is up to the maximum capacity of the instrument.

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Levelling

The instrument is provided with three adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.4 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.5 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4C/70
Accuracy class	Ⓜ
Maximum capacity	Max g *
Minimum capacity	Min g *
Verification scale interval	e = g *
Scale interval	d = g
Maximum subtractive tare	T = - g
Special temperature limits	10°C - 30°C

* Repeated in the vicinity of each reading face.

In addition, instruments are marked NOT FOR RETAIL COUNTER USE, NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

TEST PROCEDURE

Instruments should be tested in conjunction with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within $\pm 0.25e$ at no load, are:

- $\pm 0.5e$ for loads from 0 to $5000e$;
- $\pm 1.0e$ for loads over $5000e$ up to $20\,000e$; and
- $\pm 1.5e$ for loads over $20\,000e$.

National Standards Commission



NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4C/70

CHANGE No 1

The following changes are made to the approval documentation for the

Sartorius Model X1493-XA7Y201 Weighing Instrument

submitted by Sartorius AG
Weender Landstrasse 94 - 108
D-3400 Gottingen Germany.

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to read 'J. Birch'.

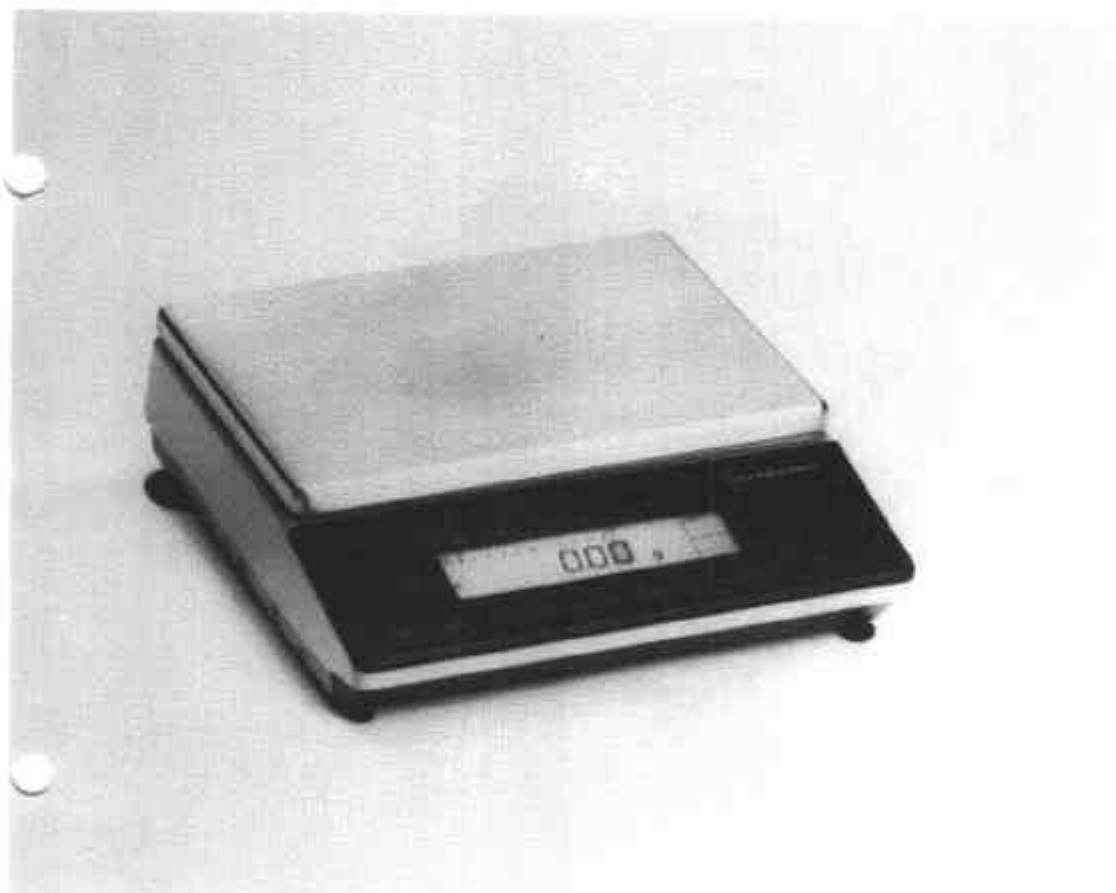
In Technical Schedule No 6/4C/70 dated 26/11/91, clause 1.1 Zero and Tare should be amended by changing the reference to zero setting to now read, in part, "... sets zero to within $\pm 0.5d$...", (rather than " $\pm 0.25e$ ").

FIGURE 6/4C/70 - 1



Sartorius Model X1493-XA7Y201 Weighing Instrument

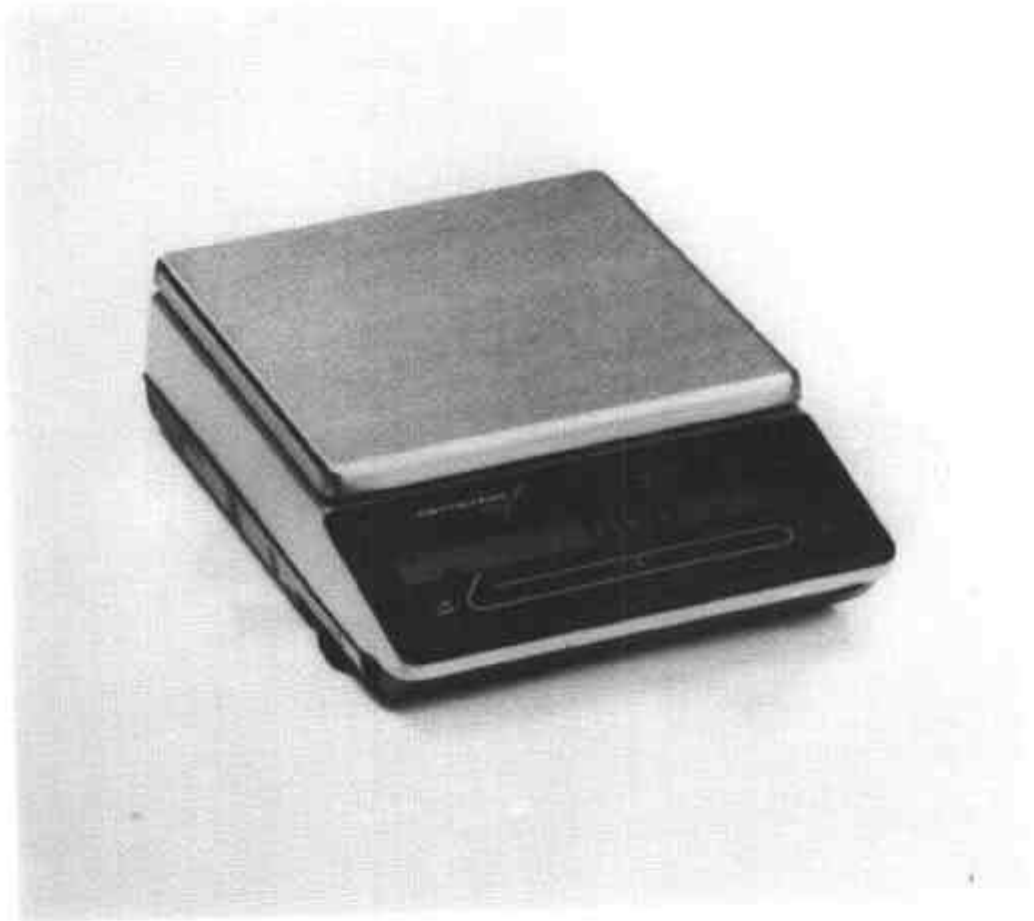
FIGURE 6/4C/70 - 2



Sartorius Model LC12000S Weighing Instrument

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FIGURE 6/4C/70 - 3



Model BA2100S