



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Interim Certificate of Approval NMI 13/1/11

VALID FOR VERIFICATION PURPOSES UNTIL 7 MARCH 2017

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.

SICK Model VMS-520 Dimensional Measuring Instrument

submitted by SICK Pty Ltd
5 Helen Street
West Heidelberg VIC 3081

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 129, *Multi-dimensional Measuring Instruments*, dated July 2004.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – interim certificate issued	23/06/06
1	Pattern & variants 1 to 3 approved – certificate issued	2/04/07
2	Variant 4 approved – certificate issued	27/08/07
3	Pattern & variants 1 & 2 amended – variants 5 & 6 approved – certificate issued	18/03/08
4	Variant 7 approved – certificate issued	9/09/08
5	Pattern (Test Procedure) amended – notification of change issued	24/07/09

Document History (cont...)

Rev	Reason/Details	Date
6	Pattern & variants 1, 2 & 5 amended – variant 8 approved – certificate issued	10/02/10
7	Pattern & variants 1 to 8 reviewed & updated – certificate issued	15/08/12
8	Variants 9 & 10 approved – interim certificate issued	31/01/13
9	Variants 9 & 10 amended (validity) – interim certificate issued	13/12/13
10	Variants 9 & 10 approved – certificate issued	17/04/14
11	Variants 11 to 13 provisionally approved – interim certificate issued	7/03/16
12	Variant 11 amended (height) – variant 14 provisionally approved – interim certificate issued	18/03/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 13/1/11' 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 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.

Special

Instruments are only approved for use for determination of the dimensions of opaque objects and for the calculation of volume of the item, for the purposes of determining freight or postal charges.

The dimensions determined may also be used for the calculation (by peripheral equipment) of a volume of the object, also for the purposes of determining freight or postal charges.

Special (for provisional variants 11 to 14)

This approval is limited to the instruments located at one (1) site only for each variant – variants 11, 12 and 14 are located at Sick Pty Ltd, 5 Helen Street, Heidelberg West VIC – the location or serial number of variant 13 should be obtained from the National Measurement Institute, prior to it being initially verified.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI P13/1/11' and only by persons authorised by the submittor. **(Note: The 'P' in the approval number may be a temporary marking.)**

The approval will remain provisional pending completion of satisfactory testing and evaluation. NMI may attend and carry out in-situ testing in conjunction with the verification testing.

In the event that either:

- site test results are not received by NMI; or
- the site test results are not considered suitable by NMI for any reason; or
- NMI receives any reports of unsatisfactory instrument performance at verification or at any time in use,

then this approval may be withdrawn.

The submitter shall implement such modifications as required by NMI. In the event that such modifications (if any are required by NMI) are not made to the satisfaction of NMI, this approval may be withdrawn.

1. Description of Pattern **approved on 23/06/06**

A SICK model VMS-520 dimensional measuring instrument which is approved for use for the determination of the linear dimensions of objects while they are in motion. May also be known as a model VMS520 (i.e. without a hyphen).

Note: Certificate of Approval 13/1/11 Rev 10 issued 17/04/14 describes the pattern and variants 1 to 10.

Note: Variants having model numbers starting with VMS520 may also be known as models starting with VMS-520 (i.e. with a hyphen).

Note: The pattern may use a Sick model DBS36-E encoder instead of the Elcis model 64-1000-1828-B-B-CV-10 tachometer.

2. Description of Variant 11 **provisionally approved on 7/03/16**

With the model VMS510-ST12100 which has a single SICK model VMD510-1000 dimensioning head mounted on a linear track above the measuring area to determine the linear dimensions of certain stationary objects.

The variant is approved for use for the determination of the linear dimensions of rectangular box-shaped (parallelepiped (#), cuboidal) objects only having maximum dimensions (i.e. length x width x height) of 1100 x 700 x **700** mm and minimum dimensions 50 x 50 x 50 mm, with a scale interval of measurement (*d*) of 5 mm.

The variant uses a Sick model DFS60E encoder, and connects to the linear track that the dimensioning head is mounted to. The track moves the dimension head to detect the edges of the stationary object below and processes the measurement data and encoder information to determine the linear dimensions.

3. Description of Variant 12 **provisionally approved on 7/03/16**

With the model VMS520-ST2x100 which is similar to variant 11 but uses two SICK model VMD520-2000 dimensioning heads mounted on a linear track above the measuring area to determine the linear dimensions of certain stationary objects including irregular shaped objects.

The pattern is approved for use for the determination of the linear dimensions of objects having maximum dimensions (i.e. length x width x height) of 1200 x 800 x 880 mm and minimum dimensions 50 x 50 x 50 mm, with a scale interval of measurement (*d*) of 5 mm.

The pattern converts the detected characteristics into the linear dimensions of the smallest rectangular box (parallelepiped – #) that would fully contain the object.

4. Description of Variant 13 provisionally approved on 7/03/16

With the model VMS520-ST3x100 which is similar to variant 12 approved for maximum dimensions (i.e. length x width x height) of 1800 x 800 x 880 mm and minimum dimensions 50 x 50 x 50 mm, with a scale interval of measurement (d) of 5 mm.

5. Description of Variant 14 provisionally approved on 18/03/16

Similar to the pattern but now where the Sick model VMS510 has only a single dimensioning head. May also be known as a model VMS-510 (i.e. with a hyphen).

The variant is approved for use for the determination of the linear dimensions of rectangular box-shaped (parallelepiped (#), cuboidal) objects only having maximum dimensions (i.e. length x width x height) of 2000 x 1000 x 1000 mm and minimum dimensions 50 x 50 x 50 mm, with scale intervals of measurement (d) of either 10 x 10 x 5 mm with a belt speed up to 1.2 m/s, or with scale intervals of measurement (d) of 5 x 5 x 5 mm with a belt speed from 1.2 m/s up to 2 m/s.

This variant uses a Sick model DBS36-E encoder or an Elcis model 64-1000-1828-B-B-CV-10 tachometer.

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



Dr A Rawlinson

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