

***National Type Evaluation Program  
Certificate of Conformance  
for Weighing and Measuring Devices***

**For:**

Indicating Element  
Digital Electronic  
Models: 7000M, 7000XLM, and 8000XLM  
 $n_{\max}$ : 10 000

Accuracy Class: III

**Submitted by:**

Doran Scales, Inc.  
1315 Paramount Parkway  
Batavia, IL 60510  
Tel: (630) 879-1200  
Fax: (630) 879-0073  
Contact: Bill Snyder

**Standard Features and Options**

Models include: 7000M with ZERO switch and optional UNITS switch  
7000XLM with ZERO, UNITS, and PRINT switches  
8000XLM with ZERO/ON/OFF, UNITS, and PRINT switches and internal battery power supply  
with internal battery charger, includes auto shut-off feature

Specific models covered by this certificate are those with software program 50, revision 1.3 or higher.

Semi-automatic zero setting mechanism (push-button)  
Automatic zero setting mechanism  
Initial zero setting mechanism for Class III applications  
Remote printer capability  
AC power supply  
Pound/kilogram/gram/ounce units  
Class I Audit Trail; Models 7000M with UNITS switch option only, all 7000XLM & all 8000XLM

**Options:**

Model 7000D remote customer display  
RS-232 bi-directional serial interface  
Ticket or label printer  
Remote switch that can be used for one of the following functions:

1. Unit convert
2. Zero
3. Print

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.



Dennis E. Ehrhart  
Chairman, NCWM, Inc.



Ross J. Anderson  
Chairman, National Type Evaluation Program Committee

Issue date: February 6, 2004

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**Doran Scales, Inc.**  
**Indicating Element**  
**Models: 7000M, 7000XLM, 8000XLM**

**Application:** General purpose indicating element to be used with an approved and compatible weighing element.

**Identification:** A destructible label is attached by adhesive or metal identification tag is riveted on the back or top of the enclosure. The enclosure is mounted on a flat swivel base that may be easily rotated to view the information on the identification tag.

**Sealing:** There are two means of sealing the scale.

Means 1, Physical Seal – A wire security seal can be threaded through two drilled head cover attachment screws on the back of the scale.

Means 2, Class I Audit Trail – There are two non re-settable counters, one for calibration values and one for other scale parameters. The audit counters may be accessed by holding down the zero button and then within 1 second pressing the units button until the audit counters appear. The display will show the parameter (P) and calibration (C) counters. Several other parameters will follow after which the scale reverts to the weighing mode.

**Test Conditions:** This certificate supersedes Certificate of Conformance number 99-129A1 and is issued to correct the language in the Sealing section. This certificate was issued without additional testing based on the test conditions under Certificate of Conformance 99-129A1. The previous test conditions are listed below for reference.

**Certificate of Conformance Number 99-129A1:** This Certificate of Conformance supersedes Certificate of Conformance Number 99-129 and is issued to add a Class I Audit Trail capability to the Doran Models 7000M, 7000XLM & 8000XLM indicators. A Doran Model 8000XLM indicator was submitted for this evaluation. The emphasis of the evaluation was on the performance of how the audit trail worked based on Publication 14 testing procedures for a Class I Audit Trail. . Additional testing was not deemed necessary. The previous test conditions are listed below for reference.

**Certificate of Conformance Number 99-129:** The emphasis of this evaluation was on the device design, operation, marking requirements, performance and compliance with influence factors. For the purpose of this evaluation a Model 8000XLM indicator was interfaced with a load cell simulator. Several increasing/decreasing load tests were performed. The indicator was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F).

The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

**Type Evaluation Criteria Used:** NIST Handbook 44, 2003 Edition; NCWM Publication 14, 2003 Edition

**Tested By:** A. McCoy (OH); T. Lucas (OH) 99-129A1

**Information Reviewed By:** S. Patoray (NCWM), L. Bernetich (NCWM) 99-129A1, 99-129A2

***National Type Evaluation Program  
Certificate of Conformance  
for Weighing and Measuring Devices***

**For:**

Bench and Floor Scale Weighing Elements  
Load Cell Electronic

Models: DSP3000 and DSP5000 Series \*

$n_{\max}$ : 3000       $e_{\min}$ : (See Page 2)

Capacity: 50 lb to 1000 lb (See Page 2)

Platform: 18" x 18", 18" x 24", or 24" x 24"  
(See Page 2)

Accuracy Class: III

**Submitted by:**

Doran Scales, Inc.  
1315 Paramount Parkway  
Batavia, IL 60510  
Tel: (630) 879-1200  
Fax: (630) 879-0073  
Contact: Bill Snyder

**Standard Features and Options**

\* Model Designation: DSP3XXX or DSP5XXXX/YYYY, where XXXX indicates the capacity of the scale in pounds, and YYYY indicates the length and width of the weighing element in inches.

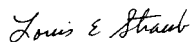
Specific model numbers, capacities, and sizes of scales covered by this Certificate are listed on Page 2.

Load Cell: Tedeo-Huntleigh Model 1250 (Certificate of Conformance Number 89-054A1) or equivalent NTEP approved load cell

Temperature Range: -10 to 40 °C (14 to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: May 13, 1998



Louis E. Straub  
Chairman, NCWM, Inc.



G. Weston Diggs  
Chairman, National Type Evaluation Program Committee

Issue date: September 3, 1998

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

**Doran Scales, Inc.**  
**Bench and Floor Scale Weighing Elements**  
**Models: DSP3000 and DSP5000 Series**

**Application:** For use in general purpose weighing applications when interfaced with a certified compatible indicating element.

**Identification:** Metal identification plate is riveted to the side of the weighing element.

**Model Designations:** The specific models, capacities, and sizes covered by this Certificate are listed below:

Model	Capacity (lb)	Size	$e_{min}$ (lb)
DSP3050*	50	18" x 18"	0.02
DSP3060	60	18" x 18"	0.02
DSP3100	100	18" x 18"	0.05
DSP3150	150	18" x 18"	0.05
DSP3200	200	18" x 18"	0.10
DSP3250	250	18" x 18"	0.10
DSP3300	300	18" x 18"	0.10
DSP5050	50	18" x 24" or 24" x 24"	0.02
DSP5060	60	18" x 24" or 24" x 24"	0.02
DSP5100	100	18" x 24" or 24" x 24"	0.05
DSP5150	150	18" x 24" or 24" x 24"	0.05
DSP5200*	200	18" x 24" or 24" x 24"	0.10
DSP5250	250	18" x 24" or 24" x 24"	0.10
DSP5300	300	18" x 24" or 24" x 24"	0.10
DSP5500	500	18" x 24" or 24" x 24"	0.20
DSP5750	750	18" x 24" or 24" x 24"	0.50
DSP51000*	1000	18" x 24" or 24" x 24"	0.50

\* Device submitted for evaluation

**Sealing:** The weighing element has no metrological functions that require the use of a security seal. Calibration and configuration of the scale are done through the attached indicator.

**Test Conditions:** This Certificate supersedes Certificate of Conformance (CC) Number 89-113A1 and is issued to add the DSP3000 Series. The DSP3000 Series was originally located on CC Number 89-112A1. No additional testing was required. Since test conditions for 89-112A1 and 89-113A1 are identical, only test conditions for 89-112A1 are repeated below for reference.

**Doran Scales, Inc.**  
**Bench and Floor Scale Weighing Elements**  
**Model: DSP3000 and DSP5000 Series**

**Test Conditions Continued:**

**Certificate of Conformance Number 89-112A1:** Additional testing was required to cover additional capacities and to increase the maximum number of divisions. The emphasis of this evaluation was on the marking, influence factors, and compliance with other performance requirements. For the purposes of this evaluation, a 50-lb weighing element (Model DSP3050) and a 1000-lb (Model DSP51000) weighing element were tested. The scales were interfaced with Doran Model 4200M indicating elements. The scales were both tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Power variation tests were conducted using 100 VAC and 130 VAC. Increasing/decreasing load and shift tests were conducted. A load of approximately one-half capacity was applied to the DSP3050, 100 280 times and to the DSP51000, 100 120 times. The scales were tested periodically during this time.

**Certificate of Conformance Number 89-112:** For this evaluation a 200-lb and a 1000-lb weighing element were interfaced with a Doran Model 8000 indicator. The emphasis of the evaluation was on the device design, marking, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were performed. Each scale was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half scale capacity was applied to the 1000-lb scale 100 090 times and to the 200-lb scale 100 150 times. The scales were tested periodically during this time.

The results of the evaluations indicate the devices comply with the applicable requirements.

**Type Evaluation Criteria Used:** NIST Handbook 44, 1998 Edition

**Tested By:** J. Truex and B. Badenhop (OH) 89-113

**Information Reviewed By:** T. Ahrens (NIST) 89-113A2

***National Type Evaluation Program  
Certificate of Conformance  
for Weighing and Measuring Devices***

**For:**

Bench and Counter Scale  
Digital Electronic  
Model: DXL3000 Series  
 $n_{\max}$ : See Below  $e_{\min}$ : See Below  
Capacity: See Below  
Platform: See Below

Accuracy Class: III

**Submitted by:**

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**Standard Features and Options**

Model	Capacity x $e_{\min}$	$n_{\max}$	Platform
DXL3050	50 lb x 0.01 lb	5000	18" x 18"
DXL3100	100 lb x 0.02 lb	5000	18" x 18"
DXL3250	250 lb x 0.05 lb	5000	18" x 18"
DXL3300	300 lb x 0.05 lb	6000	18" x 18"

**Other Models:**

DXL3XXX/YYYY where XXX = capacity in pounds and YYYY = platter dimensions in inches, not to exceed 324 sq in  
Example: DXL3100/1616 is a 100 lb device with a 16" x 16" platter

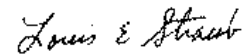
Load cell used: HBM PW16C

Temperature range of: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.



Ronald D. Murdock  
Chairman, NCWM, Inc.



Louis E. Straub  
Chairman, National Type Evaluation Program Committee  
Issue date: June 25, 2002

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**Doran Scales, Inc.**  
**Bench & Counter Scale**  
**Model: DXL3000 Series**

**Application:** General purpose weighing when interfaced with a compatible and NTEP approved indicator.

**Identification:** The required information is on a self destructive label attached by adhesive or a metal identification badge affixed to the device under the platter.

**Sealing:** There are no metrological functions on the device so sealing is not needed. The sealing is done through the indicator per the manufactures specifications for the particular indicator used.

**Test Conditions:** One DXL3050 model was evaluated as a 50 lb x 0.01 lb interfaced with a Doran 9000XLM (CC no. 01-095) indicator; and one DXL3300 model was evaluated as a 300 lb x 0.05 lb interfaced with a Doran 8600M (CC no. 94-033A1) indicator. The emphasis of the evaluation was on the device design, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were performed. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of half capacity was applied to each base over 100 000 times. The scale was tested periodically during this time.

The results of the evaluation indicate the devices comply with the applicable requirements of NIST Handbook 44.

**Type Evaluation Criteria Used:** NIST Handbook 44, 2002 Edition and Publication 14, 2002 Edition.

**Tested By:** A. McCoy (OH)

**Reviewed By:** S. Patoray (NCWM), L. Bernetich (NCWM)

***National Type Evaluation Program  
Certificate of Conformance  
for Weighing and Measuring Devices***

**For:**

Bench Scale Weighing Element  
Load Cell Electronic  
Model: DXL7000, DXL8000 and DXL 9000 Series  
\* (See Below)  
 $n_{max}$ : 5000;  
Capacity: 5 lb to 200 lb  
Platform: 10" x 10", 12" x 12" and 15" x 15"  
\*(See Below)  
Accuracy Class: III

**Submitted by:**

Doran Scales, Inc.  
1315 Paramount Parkway  
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**Standard Features and Options**

MODEL	CAPACITY	PLATFORM
DXL 7005	5 lb x 0.001 lb	10" x 10"
DXL 7010	10 lb x 0.002 lb	10" x 10"
DXL 7025	25 lb x 0.005 lb	10" x 10"
DXL 7050	50 lb x 0.01 lb	10" x 10"
DXL 8050	50 lb x 0.01 lb	12" x 12"
DXL 8100	100 lb x 0.02 lb	12" x 12"
DXL 9050	50 lb x 0.01 lb	15" x 15"
DXL 9100	100 lb x 0.02 lb	15" x 15"
DXL 9200	200 lb x 0.05 lb	15" x 15"

**Other Models:**

DXL 7XXX/YY where XXX = capacity in pounds and YY = platter dimensions in inches, not to exceed 100 sq in  
DXL 8XXX/YY where XXX = capacity in pounds and YY = platter dimensions in inches, not to exceed 144 sq in  
DXL 9XXX/YY where XXX = capacity in pounds and YY = platter dimensions in inches, not to exceed 225 sq in  
Example: DXL7005/66 is a 5 lb device with 6" x 6" platter

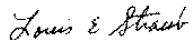
**Load Cells Used:**

Tedea Model 1022 (CC No 96-122), Tedea Model 1040 (CC No 89-075A2), Tedea Model 1042 (CC No 96-123) or an approved NTEP equivalent.

Temperature Range: -10° C to 40° C (14° F to 104° F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: November 15, 2000



Louis E. Straub  
Chairman, NCWM, Inc.



G. Weston Diggs  
Chairman, National Type Evaluation Program Committee

Issue date: November 27, 2000

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**Doran Scales, Inc.**  
**Bench Scale Weighing Element**  
**Load Cell Electronic**  
**Models: DXL 7000, DXL 8000 and DXL 9000**

**Application:** For use in general purpose weighing applications interfaced with an approved and compatible indicator.

**Identification:** The required information is on a self-destructive label attached by adhesive or a metal identification badge affixed to the device under the platter

**Sealing:** There are no metrological features in the weighing element, all changes are made through the indicator. The indicator is sealed according to the manufacturer's instructions for the particular indicator used.

**Test Conditions:** This certificate supercedes and replaces Certificate of Conformance 97-097 and is issued to include the Model DXL 9000, capacities from 50 lb to 200 lb, and platform size of 15" x 15". Due to the narrow range of capacities, one scale was submitted for evaluation, a Model DXL 9100, 100 lb x 0.02 lb, 15" x 15" platform. For the purpose of this evaluation, the load receiving element was interfaced with a Doran Model 8600M indicating element (Certificate of Conformance number 94-033).

The emphasis of the evaluation was on the device design, operation, performance and compliance with influence factor requirements. Several increasing/decreasing load tests and shift tests were performed. The device was tested over a temperature range of -10° C to 40° C (14° F to 104° F). A load of approximately one-half capacity was applied to the scale over 100 000 times. The scale was tested periodically during this time

The original test conditions are repeated below for reference.

**Certificate of Conformance 97-097 :** The emphasis of the evaluation was on the device design, operation, performance and compliance with influence factor requirements. For the purpose of this evaluation two devices were tested the DXL7005 and the DXL 8100 were interfaced with the Doran 8600 (CC#94-033) indicator. Several increasing/decreasing load tests and shift tests were performed. Additionally, tests were conducted using 100 VAC and 130 VAC power supply. The device was tested over a temperature range of -10° C to 40° C (14° F to 104° F). A load of approximately one-half capacity was applied to both scales 100 800 times. The scale was tested periodically during this time.

The results of the evaluation indicate the device complies with the applicable requirements of NIST Handbook 44

**Type Evaluation Criteria Used:** NIST Handbook 44, 2000 Edition

**Tested By:** A. McCoy (OH), W. West (OH) and T. Lucas (OH)

**Information Reviewed By:** S. Patoray, NCWM (97-097A1)