



Super Washdown Scales

# SW Series

*Maximum Resistance to  
Hostile Environments!*

## IP69K



**AND** ...Clearly a Better Value  
A&D Company, Limited  
<http://www.aandd.jp>



# If you take the hygiene of your equipment seriously...

Maintaining hygienic facilities is imperative in the food-processing industry, and the sanitary requirements of governments and companies are becoming increasingly strict all around the world. The SW Series of IP69K-rated Super Washdown Scales is ideally constructed for heavy-duty cleaning with high-pressure (~ 10,000 kPa) and high-temperature (~ 85 °C) water, as well as for long-term use in harsh environments.



**Withstands extremely damp environments**



**Load cell also protected at the IP69K level**

## Features

- **IP69K - the highest level of dust and water-proofing\***
- **Ultimate protection against the effects of condensation**
- **Streamlined construction for easy cleaning of food-processing residues**
- **Stainless steel weighing pan, frame, and load cell\*\***
- **Rugged and adjustable indicator bracket**
- **Touch sensitive capacitive keys to ensure permanent waterproofing**
- **Bright, multicolored LED display with 5-step comparator lamps**
- **Auto-tare function to facilitate consecutive check weighing**
- **Three sizes of base units, which are also available separately**
- **Rechargeable battery, RS-232C + relay output interface, and RS-422 / 485 interface (optional)**

\* IP68 compliant at the same time

\*\* Weighing pan = SUS 304

Frame = SUS 304

Load cell = SUS 630



LED Display



External Calibration



RS-232C Interface



Counting Function



Comparator Function



Auto Power OFF



Rechargeable Battery



EC Type Approval



IP68



IP69K



Software



The capacitive keys prevent surface rupture from pressing with sharp objects and thereby ensure permanent waterproofing.



The multicolored LED is highly visible and intuitive.



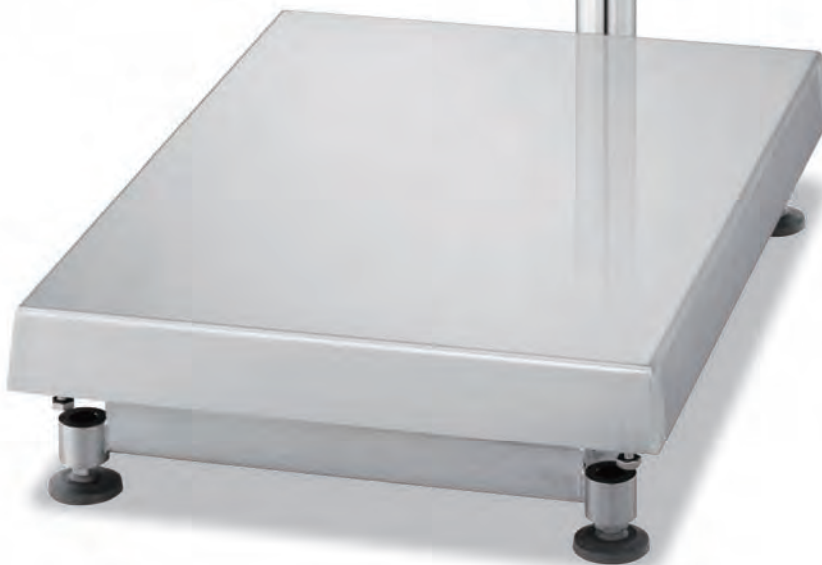
The pole stand can be set on the longitudinal side.



The bracket angle is adjustable to 0°, 30°, 60°, and 90°.



The streamlined construction is ideal for washdown applications.



## SW-D – IP69K Indicator for High Pressure Washdown

The desktop/wall-mount stand is optional.

You can purchase the SW display unit (SW-D) separately and use it as an IP69K (as well as IP68) indicator with platforms (load cells) other than A&D's.

Input sensitivity	0.2 $\mu$ V / d min. (d: minimum division)
Input signal range	-16 mV to 16 mV
Load cell excitation voltage	DC 5 V $\pm$ 5% (no remote sensing)
Load cell drive capacity	Up to four 350 $\Omega$ load cells
Temperature coefficient	Zero $\pm$ (0.2 $\mu$ V $\pm$ 0.001% of zero adjustment voltage) / °C (typ.)
	Span $\pm$ 0.001% / °C of reading (typ.)
Linearity	$\pm$ 0.01% of full scale
Maximum display resolution	60000
Dimensions	255 (W) x 119 (D) x 179 (H) mm / 10.0 (W) x 4.7 (D) x 7.0 (H) in
Mass (approximate)	2.1 kg / 4.63 lb

## Specifications

	SW-6KS	SW-15KS	SW-15KM	SW-30KM	SW-60KM	SW-150KM	SW-60KL	SW-150KL	
kg	Capacity	6	15	15	30	60	150	60	150
	Min. display	0.002	0.005	0.005	0.01	0.02	0.05	0.02	0.05
		0.001 * 0.0005	0.002 * 0.001	0.002 * 0.001	0.005 * 0.002	0.01 * 0.005	0.02 * 0.01	0.05 * 0.01	0.01 * 0.005
lb	Capacity	13	33	33	66	130	330	130	330
	Min. display	0.005	0.01	0.01	0.02	0.05	0.1	0.05	0.1
		0.002 * 0.001	0.005 * 0.002	0.005 * 0.002	0.01 * 0.005	0.02 * 0.01	0.05 * 0.02	0.1 * 0.02	0.02 * 0.01
oz	Capacity	210	520	520	1050	2100	5200	2100	5200
	Min. display	0.1	0.2	0.2	0.5	1	2	1	2
		0.05 * 0.02	0.1 * 0.05	0.1 * 0.05	0.2 * 0.1	0.5 * 0.2	1 * 0.5	2 * 0.5	1 * 0.2
lb-oz	Capacity	13	33	33	66	130	330	130	330
	Min. display	0.1	0.1	0.1	0.1	1	1	1	1
Number of samples	5 pieces (Can be changed to 10, 20, 50 or 100)								
Maximum count	120,000 pcs	150,000 pcs	150,000 pcs	150,000 pcs	120,000 pcs	150,000 pcs	120,000 pcs	150,000 pcs	
Minimum unit weight	0.00005 kg	0.0001 kg	0.0001 kg	0.0002 kg	0.0005 kg	0.001 kg	0.0005 kg	0.001 kg	
Repeatability (Std. deviation)	0.001 kg	0.002 kg	0.002 kg	0.005 kg	0.01 kg	0.02 kg	0.01 kg	0.02 kg	
Linearity	±0.002 kg	±0.005 kg	±0.005 kg	±0.01 kg	±0.02 kg	±0.05 kg	±0.02 kg	±0.05 kg	
Sensitivity drift	±20 ppm / °C (5 °C to 35 °C / 41 °F to 95 °F)								
Display	Weight: 7 segment LED display (Character height: 14.6 mm) Comparator: Red/Yellow/Green/Yellow/Red LED								
Display update	10 times per second								
Operating conditions	-10 °C to 40 °C / 14 °F to 104 °F								
Power supply	AC main (100 V ~ 240 V) or SLA Battery (option), Approx. 90 hours (depends on usage)								
Weighing pan size	250 x 250 mm / 9.8 x 9.8 in.		300 x 380 mm / 11.8 x 15.0 in.				390 x 530 mm / 15.4 x 20.9 in.		
Dimensions (for the pole type)	250(W) x 480(D) x 353.5(H) mm 9.8(W) x 18.9(D) x 13.9(H) in.		300(W) x 601(D) x 722.5(H) mm 11.8(W) x 23.7(D) x 28.4(H) in.				390(W) x 751(D) x 722.5(H) mm 15.4(W) x 29.6(D) x 28.4(H) in.		
Mass (approximate) (for the pole type)	7.7 kg / 17.0 lb		13.0 kg / 28.7 lb				16.2 kg / 35.7 lb		
Calibration weight (factory setting)	6 kg	15 kg	15 kg	30 kg	60 kg	150 kg	60 kg	150 kg	
	12 lb	30 lb	30 lb	60 lb	120 lb	300 lb	120 lb	300 lb	

\* Factory setting

## Options

**OP-02** Sealed lead acid rechargeable battery  
**OP-03\*** RS-232C+comparator relay output  
**OP-04\*** RS-422/485  
**OP-09** Short pole stand (for SW-6KS/15KS)

**OP-10** Long pole stand  
**OP-11** Desktop/wall-mount stand  
 \* OP-03 and OP-04 cannot be used at the same time.  
 \* The SW is not IP69K compliant with OP-03 or OP-04.

## Specifications (base unit only)

	SB-6K13SW	SB-15K13SW	SB-15K14SW	SB-30K14SW	SB-60K14SW	SB-150K14SW	SB-60K15SW	SB-150K15SW
Capacity	6 kg	15 kg	15 kg	30 kg	60 kg	150 kg	60 kg	150 kg
Zero balance	0.27 ± 0.2 mV/V	0.11 ± 0.2 mV/V	0.13 ± 0.2 mV/V		0.07 ± 0.2 mV/V	0.03 ± 0.2 mV/V	0.11 ± 0.2 mV/V	0.04 ± 0.2 mV/V
Rated output	1 mV/V ± 10%		0.5 mV/V ± 10%	1 mV/V ± 10%				
Linearity & hysteresis	0.03% of rated output							
Compensated temperature range	-10 °C to 40 °C / 14 °F to 104 °F							
Max. excitation voltage	DC 15 V							
Input terminal resistance	1780 Ω ± 50 Ω							
Output terminal resistance	1600 Ω ± 10 Ω							
Isolation resistance	Greater than 5000 MΩ at DC 50 V							
Cable	ø 6 x 1.5 m, shielded cable including 4 wires							
Weighing pan size	250 x 250 mm / 9.8 x 9.8 in.		300 x 380 mm / 11.8 x 15.0 in.				390 x 530 mm / 15.4 x 20.9 in.	
Mass (approximate)	3.7 kg		8.2 kg				11.2 kg	



### A&D Company, Limited

3-23-14 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-0013 JAPAN  
 Telephone:[81](3) 5391-6132 Fax:[81](3) 5391-6148  
<http://www.aandd.jp>

### A&D ENGINEERING, INC.

1756 Automation Parkway, San Jose, CA 95131 U.S.A.  
 Telephone:[1](408) 263-5333 Fax:[1](408) 263-0119

### A&D Australasia Pty Ltd.

32 Dew Street, Thebarton, South Australia 5031 AUSTRALIA  
 Telephone:[61](8) 8301-8100 Fax:[61](8) 8352-7409

### A&D INSTRUMENTS LTD.

Unit 24/26 Blacklands Way Abingdon Business Park,  
 Abingdon, Oxon OX14 1DY UNITED KINGDOM  
 Telephone:[44](1235) 550420 Fax:[44](1235) 550485

### <German Sales Office>

Große Straße 13 b 22926 Ahrensburg GERMANY  
 Telephone:[49](0) 4102 459230 Fax:[49](0) 4102 459231

### A&D KOREA Limited

Manhattan Bldg. 8F, 36-2 Yoido-dong, Youngdeungpo-gu, Seoul, KOREA  
 Telephone:[82](2) 780-4101 Fax:[82](2) 782-4280

### A&D RUS CO., LTD.

Vereyskaya str.17, Moscow, 121357 RUSSIA  
 Telephone: [7] (495) 937-33-44 Fax: [7] (495) 937-55-66

### A&D Instruments India Private Limited

509 Udyog Vihar Phase V  
 Gurgaon-122 016, Haryana, INDIA  
 Telephone: [91](124) 471-5555 Fax: [91](124) 471-5599