



# Technical Specifications

## SVS 2000 Single Vessel Weight Indicator

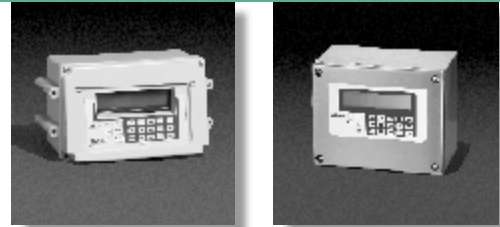
**A full-featured, high performance weight indicator for in-process weighing and batching or inventory weighing applications.**

The SVS 2000 accepts input signals from half- or full-bridge strain gage load cells through a high resolution (up to 21-bit) analog-to-digital converter. Resolution and gain are adjustable for optimal system performance. Weight is displayed at the indicator and the data can be serially polled from a master device. Analog and digital outputs can be generated from the inputs to the SVS 2000 to provide auxiliary controls.

Unit includes setpoint preact, digital interfaces and KM's **Sentry™** DSP filter which provides stable, accurate readings under a variety of mixing conditions or plant vibrations. **Sentry™** digitally separates the vessel weight changes from the vibrations and dynamic conditions often experienced on vessels with mixers. This provides stable and accurate weight readings. Its flexibility allows you to optimize system performance so it won't be fooled by sudden weight changes like other filter systems.

Using **Quick Config**, the SVS 2000 is easy to set up and calibrate without test weights or special load cells. Responses to simple **Quick Config** questions provides the SVS 2000 with the information needed to set up and calibrate the system for your application. Within minutes, the SVS 2000 provides usable weight information. Later, when convenient, a more accurate calibration is easily obtained by moving a known quantity of material.

The SVS 2000 provides easy system configuration and expansion to meet future requirements. Optional digital interfaces include A-B Remote I/O and DeviceNet®.



## Features & Benefits

### **Quick Config**

Adjusts system parameters and pre-calibrates unit without special load cells.

### **Sentry™ DSP Filter**

Separates mixer and plant vibrations from weight changes. This provides accurate and reliable weight readings.

### **High-speed, High-resolution Weight Conversion**

Performance for demanding applications with up to 21-bit resolution.

### **Alphanumeric Backlit LCD Display**

Simple, understandable operator messages eliminates special coding/decoding, cryptic setup and diagnostic messages. Display the weight as a bar graph or digital readout.

### **NEMA-4X Enclosure**

ABS or optional stainless steel offers the right protection for your environment.

## Specifications

### Integral Display and Operator Interface

**Display:** Backlit alphanumeric liquid crystal; one line of 16 characters; selectable bar graph or engineering units format

**Data Entry:** Integral 19-key alphanumeric sealed membrane tactile keypad

**Setup:** Menu-driven prompts

**Memory:** NVRAM (non-volatile RAM)

### Transducer/Sensor Input

**Transducers/Sensors:** All KM half-bridge sensors; full-bridge foil gage

**Excitation:** Programmable between 5 and 13 volts at 250 mA

**Resolution:** Selectable 16 bit (1 part in 65,536) to 21 bit (1 part in 2,097,152) in 1-bit increments

**Conversion Speed:** 16 bit-17 mSec (16 bit-60 updates/sec), 19 bit-33 mSec (30 updates/sec), 20 bit-50 mSec (20 updates/sec), 21 bit-100 mSec (10 updates/sec)

**Span:** Programmable between  $\pm 3.0$  V at 12 V excitation, Gain = 1;  $\pm 19.5$  mV at 10V Excitation, Gain = 128

**Temperature Stability:** Zero 1 ppm/ $^{\circ}$ C; Span 5 ppm/ $^{\circ}$ C

**Common Mode Rejection:** 92 db min at DC; 150 db min at 60 Hz

**Normal Mode Rejection:** 100 db min at 60 Hz

### Inputs/Outputs/Communications

#### **Standard:**

*Remote Tare (or Remote Totalizer) Input*

*Relay Output:* 2 relay outputs; Form 'C' SPDT, programmable, 10 A 110 VAC, 8 A 230 VAC non-inductive; for motors and other large inductive loads, contactors rated for the load are required  
*Digital Output:* 6 TTL level outputs — sink 25 mA, source 300  $\mu$ A at 5V

#### **Optional PCBs:**

*Serial RS-422 or RS-485:* optical isolated; baud rate 1200, 2400, 4800, 9600 or 19200

*PLC Interfaces:* Allen-Bradley Remote I/O (discrete or block transfer) DeviceNet (polled slave)

### **Optional PCBs: (continued)**

*Analog Output:* 0-20 or 4-20 mA, 14 bit resolution, 500 VAC isolation, maximum load 600 ohms with internal loop supply

### Electrical

**AC Power:** 115 VAC  $\pm 10\%$  50/60 Hz; 230 VAC  $\pm 10\%$  50/60 Hz 30 VA

### Environmental

**Operating Temperature:**  $-4^{\circ}$  to  $122^{\circ}$  F ( $-20^{\circ}$  to  $50^{\circ}$  C)

**Enclosures:** Designed to meet NEMA 4X ABS or NEMA 4X 304L stainless steel

**Humidity:** 1% to 95% (non-condensing)

**Storage:**  $-4^{\circ}$  to  $140^{\circ}$  F ( $-20^{\circ}$  to  $60^{\circ}$  C)

### Physical

#### **Overall Dimensions:**

*ABS version:* 6.375 inches H x 11 inches W x 5.68 inches D (161.91mm x 279.4mm x 144.27mm)

*SS version:* 7.87 inches H x 9.84 inches W x 5.91 inches D (199.9mm x 249.94mm x 150.11mm)

#### **Mounting Hole Pattern**

*ABS version:* 2.5 inches H x 10.4 inches W (63.5mm x 264.16mm)

*SS version:* 5.31 inches H x 9.13 inches W (134.87mm x 231.90mm)

#### **Weight:**

*ABS version:* 6 lbs (2.6kg)

*SS version:* 11.3 lbs (5.1kg)

**Approvals:** CE Mark, UL Approved (stainless steel only)



P/N 97-7052

Specifications subject to change without notice.  
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DeviceNet is a trademark of Open DeviceNet Vendor Association, Inc.

**KM is represented in your area by:**



#### **WORLD HEADQUARTERS**

19021 120th Ave. NE  
Bothell, WA 98011 USA

**1.800.426.9010**

tel: 425.486.6600

fax: 425.402.1500

kistlermorse.com

#### **EUROPE**

Rucaplein 531

B-2610 Wilrijk-Belgium

**+32.3.218.99.99**

fax: +32.3.230.78.76

kistler.morse@skynet.be