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sartorius

## Signum® Complete Scales Regular SIWRDCP

Signum® Complete Scales



- Standard weighing system
- Resolution up to 35,000 d
- Verifiable Class III up to 7,500 e
- Includes multiple application levels
- Overload protection (300 kg)
- Variety of options for special requirements | data communication
- Optional IP65 protection
- Optional use in areas subject to explosion hazards zones 2 and 22

Signum® by Sartorius is the latest in a long line of market leading weighing technology. It combines the high precision and accuracy of a laboratory balance with the rugged robustness and longevity of an industrial scale.

With simplicity of use at the fore front of its design, Signum® provides intuitive controllers ensuring that no matter how complicated the procedure, Signum® not only makes it easy but minimizes the risk for inputting errors. Built-in calibration weights help to maintain its accuracy and an internal product memory allows large amounts of data to be stored on the machine.

A choice of three indicators and three platforms ensures that Signum® is the best choice no matter what your process. A wealth of features are provided depending on the level of indicator and platform chosen, these include;

- SQ Min
- Full label printing and formatting
- Counting
- Checkweighing
- Totalizing
- Formulation
- Classification

To fit seamlessly into your existing infrastructure, Signum® is equipped with a wide range of connectivity options such as Ethernet, Profibus DP, PS2, RS232, RS422 and RS485. To further facilitate its easy integration into any process, Signum® is built with an optional IP65 housing and is approved for use in ATEX zones 2/22.

Any application utilizing weighing technology can be a potentially damaging environment to the accuracy of the equipment. To combat this fully, Signum® is built to withstand massive overloads (up to 300 kg) and to be resilient to large side shocks and lateral vibrations.

Whatever your application, Signum® can be guaranteed to support you. The wealth of options and customizable features makes it the perfect scale no matter what your budget or requirements.

Signum®, the complete scale to complete your process.

## General Specifications

### Material

Display unit stainless steel  
Platform Industrial strength epoxide resin coating  
Color: NCSS3502-B (RAL7040),  
Stainless steel load plate

### Display and control unit

Supplied, with metal sheet attachment (screw connection), or optional column that can be attached to the platform

### Humidity

85% relative (non-condensing)  
up to 31°C; 50% relative 40°C

### Use at an altitude above sea level

Up to 2,000 m; indoors

### Weighing system

Standard load cell:  
Strain-gauge weighing technology

### Resolution (not verifiable)

Depending on model up to 35,000 d

### Resolution (verifiable)

Depending on model:  
1 × 6,000 | 7,500 e

### Transient emissions

In compliance with EN 61326-1, Class B (IEC 61326-1)

### Electrical safety

In compliance with EN 61010-1  
(IEC 61010-1)

### Interference resistance

In compliance with EN 61326-1,  
Industrial areas  
(IEC 61326-1)

### Preload

Up to 100 % of the scale area

### IP Protection Rating

IP43  
optional IP65

### Net weight | Gross weight

12.0 | 13.0 kg

### Packaging dimensions

570 × 400 × 370 mm

### Ambient temperature

- 10°C to 40°C

### Ambient temperature

(for use in legal metrology only)  
+10°C to +40°C

### Data interfaces

RS232

Optional

RS232

RS-485/422

Analog output 0/4..20 mA, 0-10 V, 16-bit

Digital I | O (5 inputs and 5 outputs)

PROFIBUS DP

Ethernet TCP | IP

PS/2

2nd built-in A/D converter

### Internal alibi memory

Optional 130,000 data records

### Comprehensive range of accessories

### Battery operation

Optional

Internal rechargeable battery in display unit  
(different housing dimensions)

### EX approval

Zones 2 and 22

### Power supply

100 – 240 V AC (-15% | +10%), 50 – 60 Hz,  
Max. 17 W | 23 VA

Optional

15.5–24 VDC (±10%), max. 12 W

13–17 VAC (±10%), 50–60 Hz, max. 12 W

### Cable length between display unit and platform

2 m

### Order code

Series	Sensor technology	Dimensions	Base frame material	Application level	Maximum load	Display resolution	CE approval
SIW	R	DC	P	1	3	I	
				2	6	R	RCE
				3	15		
					35		
					60		

### Signum® Standard Resolutions

Non-verifiable		Verifiable	
- I	Resolution > 30,000 d	-RCE	Single range, Class III 1 × 6,000   7,500 e
- R	Resolution > 6,000 d		

### Display and control unit



### Application levels

	Level 1	Level 2	Level 3
Keyboard	6 keys	14 keys	28 keys
Display	14 segments	14 segments 20 mm weight display plus application icons	14 segments 20 mm weight display plus application icons
Weighing	•	•	•
Data transfer to printer   PC	•	•	•
isoTEST	•	•	•
Counting		•	•
Weighing in percent		•	•
Averaging		•	•
Checkweighing		•	•
Totalizing		•	•
Combination of 3 applications			•
Weighing and counting to target value (from memory)			•
SQ min (minimum sample weight)	•	•	•
Identifiers (4 × 40 characters)			•
Product data memory			•
Date   Time		•	•
Reference scale connection		•	•
Internal alibi memory (optional)		○	○

**Signum® Regular SIWRDCP Weighing Data****Non-verifiable models**

Capacity code	-3	-6	-6
Resolution code	- I	- R	- I
Weighing capacity (kg)	3	6	6
Readability (g)	0.1	1	0.2
Calibration weight value (g)	2,000	5,000	5,000
Accuracy class	M1	M2	M1
Preload (kg)	1.2	1.2	1.2
Repeatability (g)	0.2	0.2	0.2
Linearity (g)	0.3	0.4	0.4
Ambient temperature	-10°C to +40°C		

**Non-verifiable models**

Capacity code	-15	-15
Resolution code	- R	- I
Weighing capacity (kg)	15	15
Readability (g)	2	0.5
Calibration weight value (g)	5,000	5,000
Accuracy class	M2	M1
Preload (kg)	3	3
Repeatability (g)	0.2	0.2
Linearity (g)	0.8	0.8
Ambient temperature	-10°C to +40°C	

**Non-verifiable models**

Capacity code	-35	-35
Resolution code	-R	- I
Weighing capacity (kg)	35	35
Readability (g)	5	1
Calibration weight value (g)	10,000	10,000
Accuracy class	M2	M1
Preload (kg)	6	6
Repeatability (g)	1	1
Linearity (g)	1.5	1.5
Ambient temperature	-10°C to +40°C	

**Signum® Regular SIWRDCP Weighing Data****Verified models**

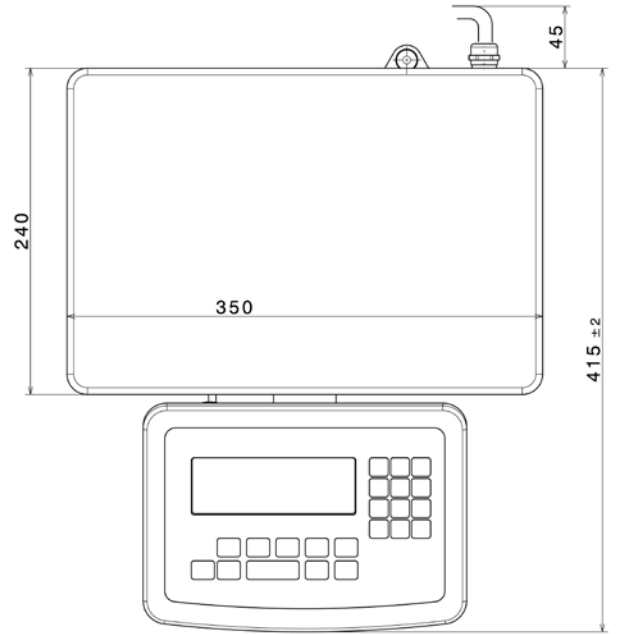
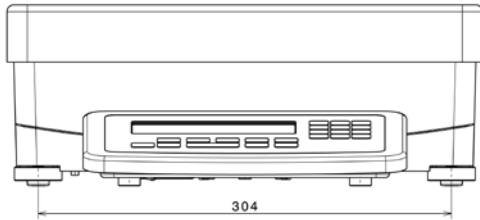
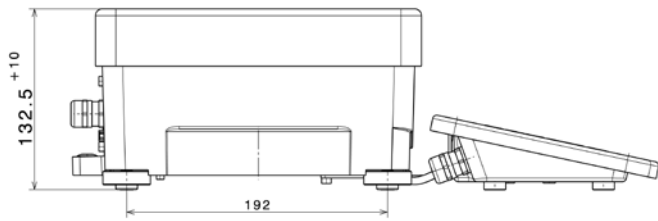
Capacity code	-6	-15
Resolution code	-RCE	-RCE
Weighing capacity (kg)	6	15
Readability (g)	1	2
Verification scale interval (g)	1	2
Calibration weight value (g)	6,000	15,000
Accuracy class	M2	M2
Preload (kg)	1.2	3
Repeatability (g) (in compliance with EN45501)	0.2	0.2
Linearity (g) (in compliance with EN45501)	0.4	0.8
Ambient temperature (for use in legal metrology only)	-10°C to +40°C	

**Verified models**

Capacity code	-35	-60
Resolution code	-RCE	-RCE
Weighing capacity (kg)	35	60
Readability (g)	5	10
Verification scale interval (g)	5	10
Calibration weight value (g)	35,000	60,000
Accuracy class	M2	M1
Preload (kg)	6	6
Repeatability (g) (in compliance with EN45501)	1	1
Linearity (g) (in compliance with EN45501)	1.5	1.5
Ambient temperature (for use in legal metrology only)	-10°C to +40°C	

Scale drawings:

SIWRDCP



The display unit and the weighing module for the Signum® Regular are mechanically decoupled and only connected via one cable.



**Display unit has flexible positioning options**

A 2 m long connection cable enables free positioning of the unit

**Advantages:**

1. No corruption of weighing results due to vibrations even during rough handling.
2. The placement of the display unit can be adjusted to all room sizes and enables ergonomic operation at all times.



**Forward position of display unit**

The unit can be secured in place by latching it into a holder



**Elevated display unit**

Column with shielded cable channel and variable tip angle setting (optional)

## Options

		Level 1		Level 2		Level 3		
		IP43	IP65	IP43	IP65	IP43	IP65	
<b>Interfaces</b>								
COM 1: RS232, real-time clock + PS2	A32			•		•		
UniCom: RS232	A1	•	•	•	•	•	•	YD001SW-232
UniCom: RS422	A2	•	•	•	•	•	•	YD001SW-485/422
UniCom: RS485	A3	•	•	•	•	•	•	YD001SW-485/422
UniCom: Ethernet	B9	•	•	•	•	•	•	YD001SW-ETH
UniCom: 5 dig. In   5 dig. Out	A5	•	•	•	•	•	•	YD001SW-DIO
UniCom: Analog output	A9	•	•	•	•	•	•	YD001SW-AO
UniCom: Profibus	B1	•	•	•	•	•	•	YD001SW-DP
Analog interface for second scale	A15			•	•	•	•	
<b>Other Features</b>								
Protection class IP65	I65	•	•	•	•	•	•	
24 volt AC adapter	L8	•	•	•	•	•	•	
Internal rechargeable battery pack	L9	•	•	•	•	•	•	
Separable connection for second scale	X1			•	•	•	•	
ATEX zones 2 and 22 protection class	Y2		•		•		•	
Internal alibi memory	E5	•	•	•	•	•		
<b>Manufacturer's final inspection test report</b>								
Final inspection test report (scale)	Z3	•	•	•	•	•	•	

## Accessories

### Printer

Data printer with date, time, and statistics program	YDP20-OCE
Strip   label printer, 60 mm paper width	YDP04IS-OCEUV
Strip   label printer, 108 mm paper width	YDP14IS-OCEUV
Thermal transfer printer, 108 mm paper width	YDP14IS-OCEUVTH

### Mechanical accessories

Column for DCP model, height 500 mm	YDH01P
Wall mounting bracket for display, stainless steel	YDH01CIS
Wall mounting bracket for display, stainless steel, display tiltable	YDH02CIS
Dust covers for display unit (2 units)	YDC01SW

### Cables

PC connection cable, 1.5 m	7357314
Printer connection cable, 3 m	YCC01-01CISLM3
Connection cable for analog output, with open cable ends	6906926

### Interfaces

UniCom – RS232 interface module*	YD001SW-232
UniCom – RS485/422 interface module*	YD001SW-485/422
UniCom – Analog Out interface module*	YD001SW-AO
UniCom – Ethernet interface module*	YD001SW-ETH
UniCom – Dig. I/O interface module*	YD001SW-DIO
UniCom – Profibus DP interface module*	YD001SW-DP
External USB interface cable	YCC01-USBM2

\*for future installation by service or dealer

### Electrical accessories

2nd display	YRD02Z
External red-green-red display	YRD11Z
Barcode reader, 120 mm scanning width with PS/2 connector	YBR03PS2

### Software

SNLE Sartorius Nice Label Express software	YAD02IS
WinScale for Windows® 95   98   2000   NT	YSW03
SartoCollect	YSC02
SartoConnect	YSC01L

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