19sa Stainless Steel Multi-Function Analogue Output Indicator

Fidelity Measurement

CE RoHS2 2011/65/EU — ANDROID APP ON Google play — Download on the App Store

19sa is designed according to IP66 and is built-in with 3 types of selectable analogue output types, i.e. 0-5V, 0-10V, 4-20mA.

All these 3 outputs are supported by a 16-bit digital to analogue converter with output accuracy better than 1/65000. Whereas the weighing accuracy is guaranteed by our OIML 10,000e approved circuit.

19sa comes with a completely sealed and extremely heavy duty SUS304 to make with various application environments.

Analogue Output Chart

— 0-10V Output — 0-5V Output — 4-20mA

Output Value: 20.0, 17.5, 15.0, 12.5, 10.0, 7.5, 5.0, 2.5, -

Weight Detected (x10%): -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12
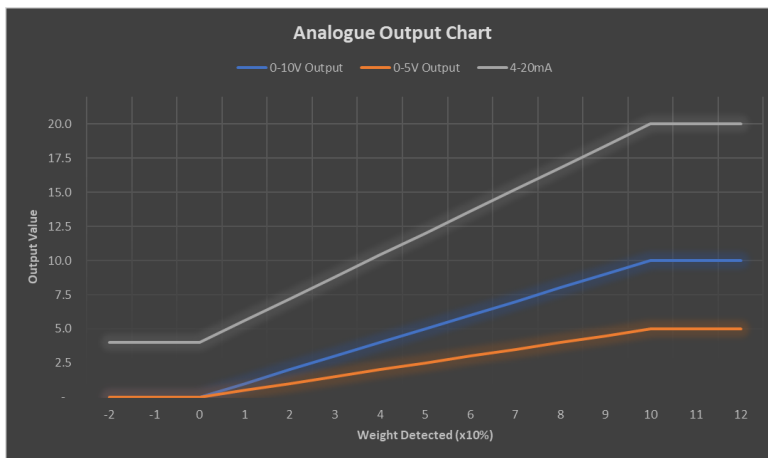
19sa is designed and programmed to provide fast, easy and straightforward operation to meet an extraordinary wide range of industrial applications which require absolute accuracy in both weighing and analogue output for industrial control.

Thanks to the built-in high-speed micro-processor, unsurpassed innovative program, new linearity compensation method, wide range of flexible, selectable operation parameters and selectable AD conversion speed.

Reliability and durability are safeguarded and guaranteed by the carefully selected components from renowned manufacturers as well as smart designed and well-planned circuits.

19sa always deliver more than it is expected and the #1 choice whenever & wherever performance, reliability, durability and flexibility are of no compromise.

Adjustable Tri-Color Check Result Backlight

Versatility, Functionality and Accuracy are always Built-in

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Functions

- Static, Dynamic & Animal Weighing, Piece Counting and Peak Hold
- Selectable 0-5V, 0-10V and 4-20mA Analogue Output
- Analogue Output can be Based on Gross or Net Weight Result
- Support Single Range, Dual Range and Dual Interval Operation
- Near Zero Weight Value for Dynamic Weighing to avoid False Signal Output
- User Selectable Analogue Output based on Gross or Net Weight Results
- Add-Tare-Memory (ATM) & Remove-Tare-Memory (RTM) Function
- Manual, Preset, Auto, Repetitive and Continuous Tare Operation
- Continuous Tare with Configurable Delay Time before Tare Action
- Weight and Quantity Check Mode
- Quick Access PLUs for Weight Limits, Quantity Limits and Preset Tare Values
- Direct PLUs for Customer & Product Codes
- Check Result Control for Accumulation, Data Printout & Data Output
- Keypad Lock Function

Operation and Management Features

- Completely Sealed Heavy Duty all SUS304 Stainless Steel Housing. Designed according to IP66
- Full Numeric Keypad
- Configurable Machine ID, Machine Group and Operator Number to Enhance Ease of Multi-Scales Applications and Management Records
- Customer & Product Code Input through Serial Scanner or Keypad
- Customer & Product Code Support Numbers, Alphabets and Symbols Characters
- Support External [Zero], [Tare] and [Print/M+] Key Input through Scanner
- Tri-Color Check Result Indication
- Configurable Keypad, Check & System Buzzer
- 2 x Independently Configurable Bi-Direction Serial Comports. Selectable TTL Output for Comport 1
- Support Inquiry, Setting and Execution Commands through PC

- All Current Operation Results Output in Data Base Format Increases Ease & Efficiency of Data Management, Processing & Analysis
- Support Ticket Printer and Label Printer (Datecs LP-50 & TSC TDP-225, TDP-247, TDP-345, TTP-225, TTP-247, TTP-345)
- Selectable Portrait / Landscape Ticket Printout Format
- 6 x 45mm Huge Size Bold Type Wide Angle LCD Numeric Digits
- Zero, Gross, Net, Weighing Range, Memory & Battery Level & Recharge Indicators
- Watchdog System to Prevent Damages caused by Load Cell Short-circuit.
- Smart Charging Circuits
- Real Time Clock

Connectivity

- 2 x Configurable Bi-Directional Serial Comports. Maximum Baud Rate = 256000
- 9 x Selectable Fixed plus 1 x User Programmable PC Output Protocols

- Support Bar Code Scanner for Customer & Product Code Entries
- Optional Built-in LAN Module for Ethernet and Internet Communication

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Apps for Smart Phones & Devices

Free iOS App (i19) & Android App (a19) are available at App Store and Google Play respectively. These Apps are so powerful that actually they turn your smart devices into a handheld terminal, remote display, remote data input center and controller of your FM product connected.

End User PC Software

- **Freeware Specially Created to Support End Users to Conduct in-house and remote monitoring and control**
- **Real Time Operation Status Monitoring**
- **Operation Parameters Setting**
- **Real Time Process Monitoring**
- **Individual and Totalized Record Storage**
- **Database File Output**

Distributor only PC Software

- **Freeware Specially Created to Support Distributors to Conduct Real-time in-house and remote diagnosis, settings and system recovery without re-calibration**
- **Extremely Useful for Heavy Capacity and Complex System Installation, Checking, Testing and Commissioning**

Output Formats

```
Time   14:27:24
Date   2016-10-06
Seq       1
Name  VNFHRUDHFLQAUOKMCB
Pcode 12345678901234567A
Net      5.000kg
Tare     2.500kg
Gross    7.500kg
Total    5.000kg


High     10.005kg
Low       9.995kg
Below limit
```
Printout Format #2

```
Name  VNFHRUDHFLQAUOKMCB
Pcode 12345678901234567A
Opr   3333
Mac   8888
MacGp 77

Date  2016-10-06
Time  14:25:24

Seq   Gross    Net
001   7.500    5.000 kg
002   7.500    5.000 kg
003   9.999    7.499 kg
004   9.999    7.499 kg
005   12.500   10.000 kg
006   5.000    2.500 kg
-----------------------
006            37.498 kg
```
Printout Format #4

```
Name  VNFHRUDHFLQAUOKMCB
Pcode 12345678901234567A
Opr   3333
Mac   8888
MacGp 77

Date  2016-10-06

Seq  Time      Net
001 14:26:11   2.500 kg
002 14:26:14   5.000 kg
003 14:26:18   7.499 kg
004 14:26:25   2.500 kg
005 14:26:28   5.000 kg
006 14:26:31   7.499 kg
-----------------------
006   Total   29.998 kg
```
Printout Format #5

	Opr	Seq	Mode	Mac	MacGp	Date	Time	Name	Pcode	Gross	Tare	Net	Low	High	Result	Total.W	Unit
Weighing	3333	1	0	8888	77	2016/10/6	11:17:08	VNFHRUDHFLQAUMCB	12345678901234567A	12.500	5.000	7.500	4.995	5.005	Abovelimit	7.50	kg
Weighing	3333	2	0	8888	77	2016/10/6	11:17:14	VNFHRUDHFLQAUMCB	12345678901234567A	15.000	2.500	12.500	4.995	5.005	Abovelimit	20.00	kg
Weighing	3333	3	0	8888	77	2016/10/6	11:17:22	VNFHRUDHFLQAUMCB	12345678901234567A	15.000	5.000	10.000	4.995	5.005	Abovelimit	30.00	kg
Weighing	3333	4	0	8888	77	2016/10/6	11:17:29	VNFHRUDHFLQAUMCB	12345678901234567A	10.000	5.000	5.000	4.995	5.005	Accept	35.00	kg
Weighing	3333	5	0	8888	77	2016/10/6	11:17:46	VNFHRUDHFLQAUMCB	12345678901234567A	7.500	2.500	5.000	9.995	10.005	Belowlimit	40.00	kg
Weighing	3333	6	0	8888	77	2016/10/6	11:17:50	VNFHRUDHFLQAUMCB	12345678901234567A	5.000	2.500	2.500	9.995	10.005	Belowlimit	42.50	kg

	Opr	Seq	Mode	Mac	MacGp	Date	Time	Name	Pcode	Gross	Tare	Net	Total.W	Unit	Count	Unit.W	Unit	Low	High	Result	Total.C
Piece Count	3333	1	1	8888	77	2016/10/6	11:18:18	VNFHRUDHFLQAUMCB	12345678901234567A	5.000	2.500	2.500	2.500	kg	19999	0.12499	g	19995	20005	Accept	19999
Piece Count	3333	2	1	8888	77	2016/10/6	11:18:25	VNFHRUDHFLQAUMCB	12345678901234567A	7.500	2.500	5.000	7.500	kg	40002	0.12499	g	19995	20005	Abovelimit	60001
Piece Count	3333	3	1	8888	77	2016/10/6	11:18:31	VNFHRUDHFLQAUMCB	12345678901234567A	7.500	5.000	2.500	10.000	kg	20003	0.12499	g	19995	20005	Accept	80004
Piece Count	3333	4	1	8888	77	2016/10/6	11:18:37	VNFHRUDHFLQAUMCB	12345678901234567A	7.500	5.000	2.500	12.500	kg	20003	0.12499	g	19995	20005	Accept	100007
Piece Count	3333	5	1	8888	77	2016/10/6	11:18:43	VNFHRUDHFLQAUMCB	12345678901234567A	5.000	2.500	2.500	15.000	kg	19999	0.12499	g	19995	20005	Accept	120006
Piece Count	3333	6	1	8888	77	2016/10/6	11:18:47	VNFHRUDHFLQAUMCB	12345678901234567A	7.500	2.500	5.000	20.000	kg	40002	0.12499	g	19995	20005	Abovelimit	160008

Database Output Content Illustration: - Weighing and Piece Count Mode

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Specifications

Capacity and Readability	**Free Setting**
Weighing Range	**Single Range, Dual Range, Dual Interval**
Weight Units	**kg, g, lb**
Display	**6 x 45mm Huge Size Bold Type Wide Angle LCD Numeric Digits**
Load Cell Connection	• **Excitation Voltage = 5V DC.** • **Support both 4-wire & 6-wire Load Cells** • **Maximum Load Cell Connection: -** **Approved = 4 x 350Ω or 8 x 700Ω Load Cells** • **Non-Approved = 10 x 350Ω or 20 x 700Ω Load Cells**
A/D Converter & Internal Resolution	• **24 bit Low-Noise Delta to Sigma (Δ-Σ)** • **4,000,000 Counts at 20 mV. Minimum input per d = 0.05μV**
AD Conversion Speed	**15, 30, 60, 120 times/second Selectable**
Max. Tare Range	**- Max for Single Weighing Interval or -Max$_1$ (Subtractive Tare)**
Analogue Output	**16-bit Digital to Analogue Converter. Selectable Output Types: -** • **0-5V / 0-10V / 4-20mA**
Calibration Methods	• **2 Span Points Calibration (Linearity Calibration), or** • **1 Span Point Calibration, or** • **Numeric Calibration Through Keyboard**
Power Source	• **Built-in Rechargeable Battery = 6V, 5AH** • **External Power Adaptor = DC 12V, 1A**
Accessories	• **Stainless Steel Wall / Desk Mount Holder** • **Universal Power Adaptor**
Packing	**Individually Packed** • **Dimensions = 32 x 32 x 15cm. Net / Gross = 3.37 / 3.87kg** **6 Units in Shipping Carton** • **Dimensions = 97 x 31 x 31cm. Net / Gross = 23.2/ 24.8kg**
Operation Environment	**-10 ~ 40ºC. Non-condensed. R.H.≦85%**

In the interest of improvement, specifications may change prior to notice

Options

- **SP-POS58IV & SP-POS88IV Thermal Ticket Printer**
- **LP-50, TDP-225, TTP-225, TTP-247, TTP-345 Label Printer**
- **Serial Bar Code Scanner**
- **WM Wireless Communication Module**
- **RD-DOT Dot Matrix Remote Display**
- **Bluetooth 4.0BLE Module/Kit**
- **Bluetooth 2.0 Module/Kit**
- **Built-in LAN Communication Module**
- **(Rechargeable Battery has to be Removed)**

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