



190s is designed according to IP66. It comes with a completely sealed and extremely heavy duty SUS304 enclosure.

10,000e OIML Class III approval certificate proves that it is one of the world's most accurate class III weighing instruments and a qualified instrument for trade purposes, law enforcement and non-trade usages.



Extremely low (0,75µV) input per verification scale interval means **190s** is also good for high dead load and at the same time low load cell utilization applications. Dual weighing range and interval, plus many other approved functions make **190s** the perfect answer for many legal for trade and non-trade applications.

Equipped with high speed micro-processor, unsurpassed innovative program, new linearity compensation method, wide range of flexible and selectable operation parameters, **190s** is unexceptional fast, accurate and stable no matter for low or high resolution, simple to complicated applications even at extremely heavy workload.

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

190s always deliver more than it is expected and an excellent choice whenever & wherever performance, reliability and flexibility are of no compromise.



Adjustable Tri-Color Check Result Backlight

Versatility, Functionality and Accuracy are always Built-in

190s Stainless Steel Multi-Function Indicator

Functions

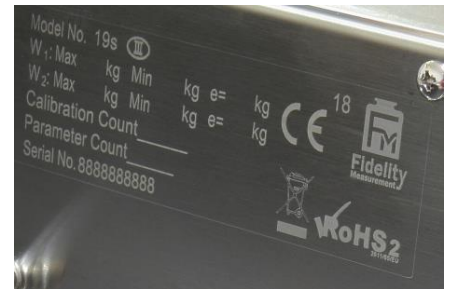
- Static Weighing, Medium ~ Low Speed Dynamic Weighing, Piece Counting, Peak Hold, Animal Weighing
- Support Single Range, Dual Range and Dual Interval Operation
- Support both Tension and Compression Load / Force Direction
- Near Zero Weight Value for Dynamic Weighing to avoid False Signal Output
- Add-Tare-Memory (ATM) & Remove-Tare-Memory (RTM) Function
- Manual, Preset, Auto, Repetitive and Continuous Tare Operation
- Weight and Quantity Check Mode
- Check Result Control for Accumulation, Data Printout & Data Output
- Keypad Lock Function

Connectivity

- 2 x Configurable Bi-Directional Serial Comports. Maximum Baud Rate = 256000
- Support Bar Code Scanner for Customer & Product Code Entries
- Optional 4 Channel built-in Control Relay Board

Operation and Management Features

- OIML Class III 10000e approved
- Configurable Machine ID, Machine Group and Operator Number to Enhance Ease of Multi-Scales Applications and Management Records
- Customer & Product Code Support Numeric Numbers When Input through Keypad
- Customer & Product Code Support Numbers, Alphabets and Symbols Characters When Input Through Scanner or PC
- 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



Born with Performance, Durability & Reliability

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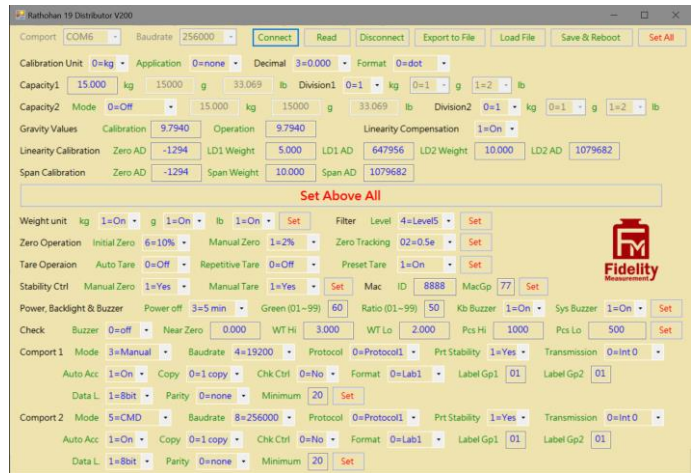
End User PC Software

- Real Time Operation Status Monitoring
- Operation Parameters Setting
- Real Time Process Monitoring
- Individual and Totalized Record Storage
- Database File Output



Distributor only PC Software

- Extremely Useful for Heavy Capacity and Complex System Installation, Checking, Testing and Commissioning
- Real Time Important System Parameters Monitoring and Setting
- Export Current System Settings to External Backup File
- On Site or Remote System Recovery by External Backup File without Re-Calibration



Output Formats

```

Time 14:27:24
Date 2016-10-06
Seq 1
Name VNFHRUDHFLQAUKMCB
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 VNFHRUDHFLQAUKMCB
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 Total 37.498 kg
    
```

Printout Format #4

```

Name VNFHRUDHFLQAUKMCB
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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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 | VNFHRUDHFLQAUKMCB | 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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190s Stainless Steel Multi-Function Indicator

Specifications

| | |
|-------------------------------------|---|
| OIML Approval Characteristics | <ul style="list-style-type: none"> Approval Class & Accuracy: - Class III 10,000e Minimum Input Voltage / e = 0.75μV |
| 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 24 bit Low-Noise Delta to Sigma ($\Delta-\Sigma$) 4,000,000 Counts at 20 mV Minimum input per d = 0.05μV |
| Max. Tare Range | - Max for Single Weighing Interval or -Max ₁ (Subtractive Tare) |
| Power Source | <ul style="list-style-type: none"> Built-in Rechargeable Battery = 6V, 5AH External Power Adaptor = DC 12V, 1A |
| Accessories | <ul style="list-style-type: none"> Stainless Steel Wall / Desk Mount Holder Universal Power Adaptor |
| Packing | <p>Individually Packed</p> <ul style="list-style-type: none"> Dimensions = 32 x 32 x 15cm. Net / Gross = 3.37 / 3.87kg <p>6 Units in Shipping Carton</p> <ul style="list-style-type: none"> Dimensions = 97 x 31 x 31cm. Net / Gross = 23.2/ 24.8kg |
| Operation Environment | -10 ~ 40°C. 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
- Built-in 4-Channel Control Relay Board (Factory installation required, rechargeable battery has to be removed)



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REV.: 190s/18/12/06