RHEWA

Waagen

Always the right *solution!*

EC trade approved and OIML certified

Classes (III) and (IIII)

82alpha **82**basic **82**edition **82**comfort

82-series indicators

Applications and functions at a glance

The starter

The all-rounder

Standard

1X | M

Series

82alpha

LED | 1X | →2←

- 1 tare memory
- **Data memory** for 10 weigh sequences/ print tickets

82basic

LCD | 1X | + | →3←

- 2 tare memories
- **Data memory** for 10 weigh sequences/ print tickets
- **Variable memory** for 10 variables/10-digit

Optional

20:12

- Alibi memory
- Ethernet

20:12

- Alibi memory
- Ethernet
- Profibus
- Analogue output

| Stainless steel | IP67 rating | Integral mains adapter | Connects to strain gauge weighing platforms | PC configurable including print tickets | Function-specific print layouts | Animal weighing | Very bright, adjustable LED display | High contrast LCD | Battery-buffered real-time clock |

The **counter**

The **virtuoso**

82edition

2X

⇥3⇤

- • **2 tare memories**
- • **1 accumulation memory**
- • **Data memory** for 10 weigh sequences/print tickets
- • **Variable memory** for 10 variables/10-digit

- • Alibi memory
- • Ethernet
- • Profibus
- • Analogue output
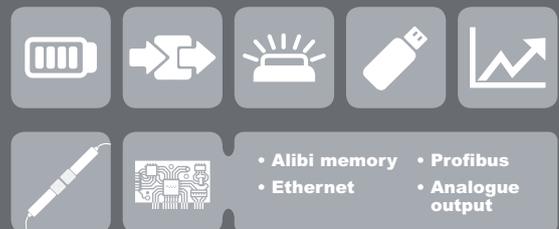
82comfort

2X

0.000 **⇥3⇤**

- • **2 tare memories**
- • **10 accumulation memories**
- • **Data memory** for 10 weigh sequences/print tickets
- • **Variable memory** for 10 variables/10-digit
- • **Statistics memory**
- • **Alibi memory**
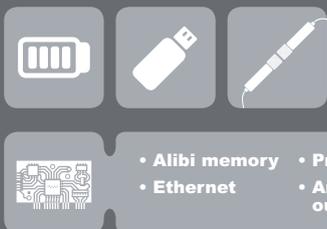
- • Alibi memory
- • Ethernet
- • Profibus
- • Analogue output

RS-232 port	Count	Accumulate	Manual tare entry	Electronic verification seal	Memory	Option cards	Integral rechargeable battery	Digital inputs and outputs	Visual signalling device

Do the comparison.

The 82 series. Always the right solution

Indicators	82 alpha	82 basic	82 edition	82 comfort
Enclosure IP67 stainless steel enclosure	●	●	●	●
Weight display LCD, 28 mm high, 6-digit, backlight	-	●	●	●
LED, 25 mm high, 6-digit, dimmable	●	-	-	-
Power supply Integral mains adapter for 230V	●	●	●	●
Retrofittable for battery operation	-	+	+	+
Measurement input For use with 1 strain gauge weighing platform	●	●	●	●
Function keys User assignable functions	-	-	-	●
Alibi memory Alibi memory on the main board	-	-	+	●
Alibi memory option card (for 82e+c = memory expansion card)	+	+	+	+
Device clock Battery-buffered real-time clock	+	+	●	●
Mains voltage dependent	●	-	-	-
Ports 1 serial port (RS-232)	●	●	-	-
2 serial ports (RS-232)	-	-	●	●
Digital inputs and outputs	-	+	-	+
Ports (as option cards) Analogue output	-	+	+	+
DP Profibus network card	-	+	+	+
Ethernet network card (10/100 Mbps)	+	+	+	+
Visual signalling device Integrated in the enclosure	-	+	-	+
Peripherals Connection of printers (strip, form or label), barcode readers (wireless or wired), USB data loggers	+	+	+	+

| Indicators	82 alpha	82 basic	82 edition	82 comfort
Count Default of reference quantities	-	-	●	●
Entry of random reference quantities	-	-	-	●
Entry of random reference weights	-	-	-	●
Accumulate 1 accumulation memory	-	-	●	-
Up 10 accumulation memories	-	-	-	●
Entry of variables or values Numeric	-	●	●	●
Alphanumeric (RS-232)	-	●	●	●
User interface Standard print layouts according to selected weigh function (weigh, count, etc.)	●	●	●	●
Function sequences and print layouts to customer specification	●	●	●	●
Animal weighing Live animal weighing mode	●	●	●	●
Target weighing/ checkweighing Target/actual comparison	-	●	-	●
Statistics function FPVO prepackages (1 product line)	-	-	-	+
Internal sampling (1 product line)	-	-	-	+

Note: Please read the device-specific information in the specifications!

- Not available   **●** Standard   **+** Optional

Optional solutions

WiFi
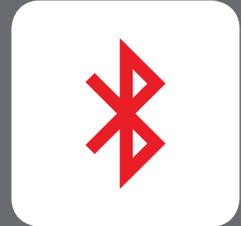
Bluetooth

Remote control

Dongle function

Wall-mounted

Large display

Performance comparison

82 alpha   82 basic   82 edition   82 comfort

USB (data logger)

Statistics memory FPVO

Dongle function

Triple/dual range function

RHEWA Waagen
... verified quality.

Enclosure
· Enclosure in stainless chrome nickel steel 1.4301
· Net weight: 2.3 kg
· Cable egress at rear with metric glands

Keypad
· Membrane keypad (polyester)
· Service life > 1 m keypresses
· High resistance to most aggressive substances
· **82 alpha**: 4 keys (short-travel keys)
· **82 basic**: 6 keys
· **82 comfort**: 24 keys
· **82 edition**: 12 keys

Display
82 alpha:
· 7 segment LED weight display, 25 mm, red, 6-digit, dimmable
· Status indication of active weighing functions via red LEDs

82 basic + **82 comfort** + **82 edition**:
· 14 segment LC weight display, 28 mm, backlit, 6-digit
· Status indication of active weighing functions via indicator arrows

Ambient conditions
· Emitted interference: EN 55011
· Working temperature: -10° to +40°C
· Storage temperature: -20° to +65°C
· Humidity: Max. 85%, non-condensing
· Ingress protection: IP 67, EN 60529 (protection against dust, contact and water jets, temporary immersion possible)

Electrical connection
82 alpha:
· Integral mains adapter for 110 to 230 VAC (-15% to +10%)
· Power consumption: max. 5 VA
· Mains plug with 2 m lead
· Mains frequency: 50/60 Hz +/-5%

82 basic + **82 comfort** + **82 edition**:
· Integral mains adapter for 230 VAC (-15% to +10%)
· Power consumption: max. 15 VA, typically 10 VA
· Mains plug with 2 m lead
· Mains frequency: 50/60 Hz +/-5%
· Optional direct feed without integral mains adapter: 10.5 - 24 VDC, ripple < 3 %

Load cell connection
82 alpha:
· 1 measurement input with max. 7 x 350 - 22 x 1.100 Ω
· Minimum permissible total terminal resistance ≥ 50 Ω
· Power supply voltage: 5 VAC
· Characteristic value: max. + 3.0 mV/V
· Measuring line: 6-way (shielded)
· R2009/23/EC approved

82 basic + **82 comfort** + **82 edition**:
· 1 measurement input with max. 8 x 350 - 27 x 1.100 Ω
· Minimum permissible total terminal resistance ≥ 40 Ω
· Power supply voltage: 5 VDC
· Characteristic value: max. + 3.0 mV/V
· Measuring line: 6-way (shielded)
· R90/384/EC approved

Analogue-to-digital converter
82 alpha:
· Sensitivity: > 0.5 µV/e
· Conversion time: 60 - 400 ms
· Measurement rate: up to 16 measurements per s
· Internal resolution: + approx. 3,200,000
· Settling time: 0.5 - 3 s
· Connection: 6-way system

82 basic + **82 comfort** + **82 edition**:
· Sensitivity: > 0.3 µV/e
· Conversion time: 20 - 160 ms
· Measurement rate: up to 50 measurements per s
· Internal resolution: + approx. 5,000,000
· Settling time: 0.5 - 3 s
· Connection: 6-way system

Clock
82 comfort + **82 edition**:
· Battery-buffered real-time clock, battery life approx. 10 years

Internal rechargeable battery (optional)
82 basic + **82 comfort** + **82 edition**:
· 11 NiMH cells, total capacity 2000 mAh
· Charge while weighing possible
· Battery life: up to 20h continuous operation
· Charger with watertight push-pull connector, 100 – 240 VAC, 50 – 60 Hz, max. 0.35 A, charger cable (1.7m), power cord (1.9 m)

Weighing range and scale interval
82 alpha:
· Class III and Class IIII
· Single-range instrument: n ≤ 10,000 e
· Multiple-range instrument: 2 x n ≤ 6,000 e
· Class IIII: ≤ 1,000 e
· Not legal for trade: n ≤ 50,000 d (limited by load cell)

82 basic + **82 comfort** + **82 edition**:
· Class III and Class IIII
· Single-range instrument: n ≤ 10,000 e
· Multiple-range instrument: 3 x n ≤ 6,000 e
· Multi-interval instrument: 3 x n ≤ 6,000 e
· Class IIII: ≤ 1,000 e
· Not legal for trade: n ≤ 100,000 d (limited by load cell)

Adjustment program
· Adjustment: 2 - 5 user-selectable adjustment points
· g-value correction: Via entry of g-value
· Adjustment correction: Resettable adjustment points
· Manual entry: Entry of adjustment points (load and AD value)
· Initial load correction: Settable without complete re-adjustment
· Digital filter: user selectable to ambient conditions, with post-verification optimisation

Ports
82 alpha + **82 basic**:
· 1 RS-232 serial port (standard)
· Transmission rates: user selectable (600 - 38, 400 bits/s)

82 comfort + **82 edition**:
· 2 RS-232 serial ports (standard)
· Transmission rates: user selectable (600 - 38, 400 bits/s)
· Port 1: Data buffer (FIFO) with optional data converter
· **82 comfort**: Port 1 can be converted to TTY, max. 200 m transmission distance

Digital inputs/outputs (optional)
Only with **82 basic** and **82 comfort**
· 2 digital inputs
· **82 basic**: 1 digital output
· **82 comfort**: 2 digital outputs with max. 2.5 A AC, 5A DC load per output (12–24 VAC/DC), potential-free

Memory
· Tare memory: 1 or 2 tare memories for containers (T1) and weighed product (T2), together max. 100% (**82 alpha**: 1 tare memory)
· Data memory for 10 weigh sequences/print tickets (PC configurable only)

82 comfort + **82 edition**:
· Accumulation memory: 10 memory locations (**82 edition**: only 1 memory) with user numeric name assignment for net, gross, tare 1, tare 2, manual tare and unit quantities, addition counter. Largest possible value and printout: 10 digits.
· **82 basic** + **82 comfort** + **82 edition**: Variable memory: 10 variables 10-digit Alphanumeric entry via scanner or PC.
· Statistics memory for one product line
· Alibi memory for min. 36,000 entries

Option cards (one card instead of RS-232 serial port)
– Ethernet:
· Ethernet 10/100 Mbps
· Alibi memory for min. 36,000 entries or expansion of the serial memory by an additional 36,000 or 108,000 entries
· **82 alpha** + **82 basic**: Battery-buffered real-time clock

– Profibus
Only with **82 basic** + **82 comfort** + **82 edition**.
· Profibus DP
· Alibi memory for min. 36,000 entries or expansion of the serial memory by an additional 36,000 or 108,000 entries
· **82 basic**: Battery-buffered real-time clock

– Analogue output
Only with **82 basic** + **82 comfort** + **82 edition**.
· Analogue output: Selectable voltage or current output and ranges (0 - 20 mA, 4 - 20 mA, 0 - 5 V, 0 - 10 V)
· Analogue signal according to gross or net weight or quantity
· RS 422, RS 485

– Alibi memory
· Alibi memory for min. 36,000 entries or expansion of the serial memory by an additional 36,000 or 108,000 entries
· **82 alpha** + **82 basic**: Battery-buffered real-time clock

160°
194 85
173
85
435
311
311
1290