

Combics Indicators

Tailor-made solutions for demanding weighing tasks



! Advantages

- Minimize product rejections with high resolution indicators
- Flexible configuration for all requirements
- Hygienic, rugged design for industrial use
- "German Quality" guarantees years of trouble free, accurate weight results



Combics industrial indicators combine precision with flexibility for food, chemical, pharmaceutical and logistics industries. From basic to full featured, Combics indicators are the perfect compliment to digital and analog bases.

High-resolution indicators for versatile applications

- ① For counting, manual formulation or checkweighing the resolution of up to 60,000 displayed divisions provides precise measurement that increases product quality and decreases production costs.
- ① Flexible display mounting for bench, wall or attached to the scale base allows easy integration into your existing workflow. Remote auxiliary display compatibility is standard.
- ① Combics control interfaces are numerous. Targeted at food, pharmaceutical and process applications, there is a control or data collection interface to fit your requirements.
- ① Choose the perfect indicator for your application from three performance levels, all compatible with digital and analog weighing bases.

Combics Application Level



Combics 1



Combics 2



Combics 3

Application Availability

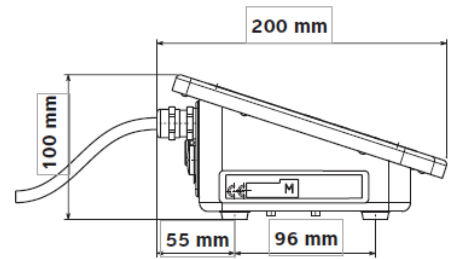
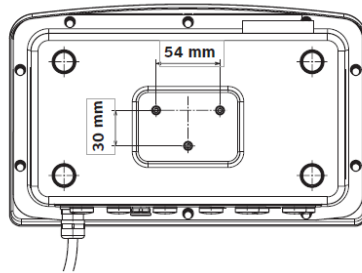
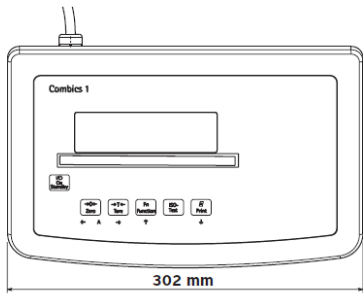
Hardware	Combics 1 - CAIS1 and CAIS1L	Combics 2 - CAIS2 and CAIS2L	Combics 3 - CAIS3 and CAIS3L
Keyboard	6 keys	28 keys Numerical keyboard	30 keys Alphanumeric keyboard
Display	14 segments 20 mm weight readout	14 segments 20 mm weight readout plus application symbols	Graphic 20 mm weight readout plus application symbols
Standard Applications			
Straight weighing	•	•	•
Data transfer to printer/PC	•	•	•
ISO test - calibration check/auto adjustment	•	•	•
Parts counting		•	•
Percentage weighing		•	•
Vibration or motion averaging		•	•
Check weighing / Weight sorting		•	•
Totalizing		•	•
Combining applications (up to three)		•	•
Sample weight and counting to target value (from memory)		•	•
SQ Min - set minimum allowed sample weight	•	•	•
Descriptive sample identifier		•	•
Product data memory		•	•
Date/Time (US and military)		•	•
Integrated red/green/yellow check weigh lights		•	•
Custom printout headers	•	•	•

Available Data Interfaces

Standard Data Ports	CAISL1	CAIS1	CAISL2	CAIS2	CAISL3	CAIS3
COM 1 RS232	•	•	•	•	•	•
COM 2 RS232					•	•
PS 2 Barcode / Keyboard					•	•
Optional Unicom Accessories						
RS232 YDO02C-232		•	•	•	•	•
RS422 and 485 YDO02-485		•	•	•	•	•
Digital 5 input/5 output YDO02-DIO		•	•	•	•	•
4-20mA / 0 - 10 volt YDO02-AO		•	•	•	•	•
Profibus DP YDO02-DP		•		•		•
DeviceNet YDO02-DN		•		•		•
Ethernet TCP/IP YDO02-ETH		•		•		•

Dimensions and Port Configurations

Combics 1, 2 & 3



CAIS1L



CAIS2L

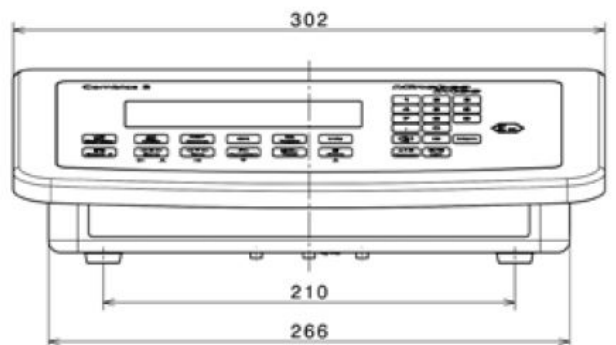
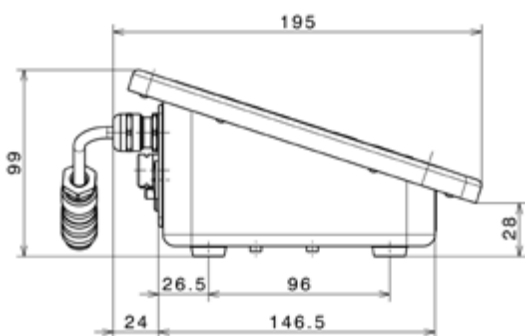
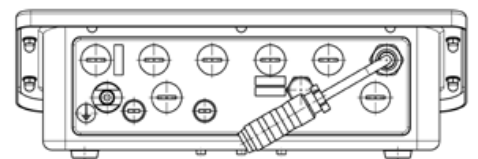
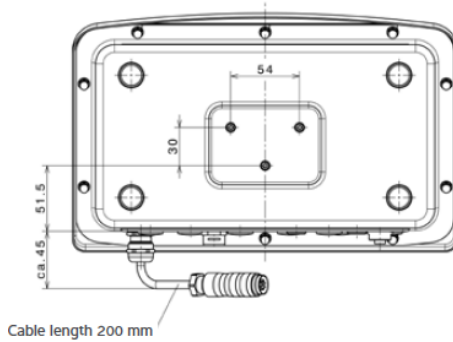
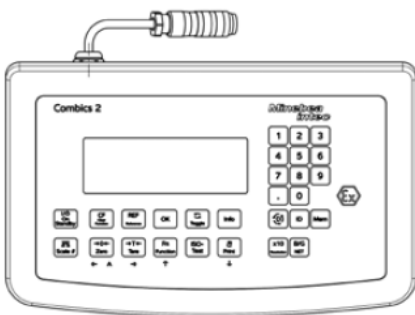


CAIS3L



CAIS1
CAIS2
CAIS3

Combics 2 Ex



Technical Specifications (non-Ex)

Housing Material	Stainless steel 1.4301 RoHs compliant
Dust and Water Protection	CAIS Versions: IP69K CAISL Versions: IP44 (with optional boot kit IP65)
Display	Combiics 1 & 2: back lit LCD, 14 segment/20 mm character height, 7 digit, status symbols Combiics 3: Graphical back lit LCD, 20 mm character height, 7 digit, status symbols
Display Mounting	Bench top Wall (with optional wall bracket)
Keypad	Combiics 1: 6 key positive click foil Combiics 2: 28 key positive click foil, 0-9 keypad, integrated check weigh lights Combiics 3: 30 key positive click foil, 0-9 keypad, integrated check weigh lights, graphic soft keys
Net Weight	5.1 pound
Platform Connections	Combiics 1: Two possible, 1 analog and 1 digital Combiics 2: Two possible, 2 analog, 2 digital or 1 of each Combiics 3: Three possible, 2 analog, 1 digital or 2 digital and 1 analog
Maximum Resolution	Smallest usable signal: 0.2 or 0.1 μ V/d
Power Cable	10 feet, grounded 3-wire plug
Load Cell Supply	8.4 V
Minimum Load Cell Impedance	83 Ohm to 2,000 Ohm
Measuring Signal	0 mV to 29.4mV
Standard Power Supply	Internal self sensing 100–240 VAC (-15%+10%), 50–60 Hz, max. 17 W/23 VA
Optional Power Supply #1	15.5–24 VDC (\pm 10%), max. 12 W 13–17 VAC (\pm 10%), 50–60 Hz, max. 12 W
Optional Power Supply #2	Rechargeable external battery pack
Interference Emission	According to EN 61326-1, Class B (IEC 61326-1)
Electrical Safety	According to EN 61010-1 (IEC 61010-1), EN60950 (IEC950)

Technical Specifications (CAIXS2-U)

Data Interfaces	RS232 Switchable to RS485 or RS422; 4...20 mA or ProfiBus DP via Ex power supply unit YPSC01-...
Power Supply	Via external power supply unit Connection via 14-pin round connector (cable 20 cm) Inside the area with potentially explosive atmosphere: FM (US): YPS02-XUR CSA: YPS02-XKR Outside the area with potentially explosive atmosphere: ATEX: YPSC01-Z FM/CSA: YPS02-ZKR Battery mode via external battery YRB02-X ATEX/FM/CSA
Scale Connection	Standard: A/D converter Optional: digital scale interface RS485 or RS232 for connecting μ BPI scales, such as IS-Ex platforms or Signum-Ex scales Combiics 2 supports two weighing points (scales)
Maximum Resolution	Smallest measurement signal 0.2 μ V/e
Preload	Up to 100% of the weighing range
Load Cell Electrical Supply	2.5 V
Load Impedance	83 ohm up to 2,000 ohm
Measuring Signal	0 mV to 7.5 mV
Measurement Signal for Dead Load	0 mV to 2.5 mV
Ex-approvals	USA: IS/CL I,II,III/Div 1/GP A,B,C,D,E,F,G T4 CL II/Zone 1/AEx ia IIC T4 Zone 2/AEx ia IIIIC T80°C Canada: IS/CL I,II,III/Div 1/GP A,B,C,D,E,F,G T4 CL II/Zone 1/Ex ia IIC T4
Humidity	85% relative (non-condensing) to 31°C; 50% relative to 40°C
Use at Altitudes Above Sea Level	Up to 6,500 feet; in interior spaces
Dust and Water Protection	IP69K
Ambient Temperature	-10°C to +40°C

The technical data given serves as a product description only and should not be understood as guaranteed properties in the legal sense.

Specifications subject to change without notice.

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