

This document will soon proudly feature our new brand & design – Minebea Intec



**sartoriusintec**  
A Minebea Group Company

## Combics CAIXS2-Ex Scale Indicator



- For use in explosive areas (certificates: IECEx | ATEX Zone 1 | 2 | 21 | 22 and FM Class I, II, III Div. 1)
- Display LCD, 20mm, 14-segments, 7 digit Weight Value with status information, back lit
- Housing in stainless steel, IP69K
- Scale connection for analogue Ex platforms, as e.g. Combics Ex, IU Ex, IF Ex or Ex load cells  
Optional also digital IS Scales (xBPI)
- Internal alibi memory
- Serial Interface RS232 | 485 | 422
- Div. Power Supplies available, also battery pack

Combics CAIXS2-Ex Scale Indicator

Combics provides support in all areas of your process chain, from manual formulations up to PC controlled production checks.

The modular system allows tailor-made configuration of the individual components for each area. We also produce individual complete solutions according to your specific applications.

Based on the specific requirements of various industries and the basic legal conditions, Sartorius has developed intelligent solutions for all weighing applications, from incoming goods through to production on a large technical scale.

The new Combics 2 Ex Indicator therefore complies with all current international requirements for use in explosive areas. The following certificates are available: IECEx | ATEX Zone 1 | 21 | 2 | 22 and FM Class I, II, III Div. 1, 2.

The Combics series supports the production of high-quality, appealing and safe products.

The unrivalled precision of Combics helps

- control flexible production
- reduce costs
- improve product quality
- raw materials to be used optimally
- increase output

A design made for longevity and flexibility stands for reliability. The hygienic design of our solutions complies with today's extremely important hygiene regulations without compromise. The devices can be cleaned very easily and thus allow Combics to be used even under tough conditions and with high safety standards.

The materials and surfaces used significantly contribute to minimizing contamination risks. All Combics scales meet EHEDG specifications.

Combics 2 Ex offers a wide range of applications:

- SQ Min (minimum sample weight)
- Comprehensive functions for printing and formatting labels
- Counting
- Checkweighing
- Totalizing
- Formulation
- Classification

The easy to operate concept, in combination with the clearly labeled keys, helps prevent errors and makes it simpler for new users to learn how to use the scales.

Moreover large data volumes can be stored on the device itself, thanks to an internal product memory.

Combics 2 Ex is always the perfect choice when working in explosive production environments.

## General technical data

### Material

Stainless steel 1.4301

### Data interfaces

RS232

Can be switched to RS485 or RS422

### Supply voltage

Via external power supply

Connection via 14-pin round socket

(20 cm cable)

Within hazardous area:

ATEX: YPSC01-X

FM (US): YPS02-XUR

CSA: YPS02-XKR

Outside hazardous area:

ATEX: YPSC01-Z

FM | CSA: YPS02-ZKR

Battery operation

Via external battery YRB02-X

ATEX | FM | CSA

### Scale Connection

Optional: digital scale interface RS485

or RS232 to connect XBPI Scales like

IS-Ex platforms or Signum Ex Scales

Combics 2 supports 1 Weighing Point (Scale)

Standard: A | D-converter

The technical data specified above only serve to describe the product and are not intended to be legally binding characteristics.

### Resolution (not verified)

smallest usable signal: 0.2  $\mu\text{V/d}$

### Resolution (verifiable, Class III)

6,000e or  $3 \times 3.000\text{e}$  (MR|MI)

smallest signal 0.2  $\mu\text{V/e}$

### Preload

Up to 100 % of weighing area

### Load Cell Supply

8.4 V

### Load Impedance

83 ohms to 2,000 ohms

### Measuring Signal

0 mV to 29.4 mV

### Measuring Signal for Dead Load

0.45 mV to 6.3 mV

### Internal alibi memory

130,000 data records

### Hazardous area certification

ATEX | IECEx:

II 2G Ex ia IIC T4 Gb

II 2D Ex ia IIIC T80°C Db

FM | CSA:

USA:

IS CL I,II,III DIV 1 GP A,B,C,D,E,F,G T4

CL I, Zone 1 AEx ia IIC T4

CL II, Zone 21 AEx ia IIIC T80°C

Canada:

Ex ia CL I,II,III, DIV 1 GP A,B,C,D,E,F,G T4

CL I, Zone 1, Ex ia IIC T4

### Humidity

85% rel. (non-condensing)

up to 31°C; 50% rel. 40°C

### Use at an altitude above sea level

Up to 2,000 m; inside

### IP protection

IP69K

### Ambient temperature

-10°C to +40°C

### Transient emissions

In compliance with EN 61326-1, Class B

(IEC 61326-1)

### Electrical safety

In compliance with EN 61010-1

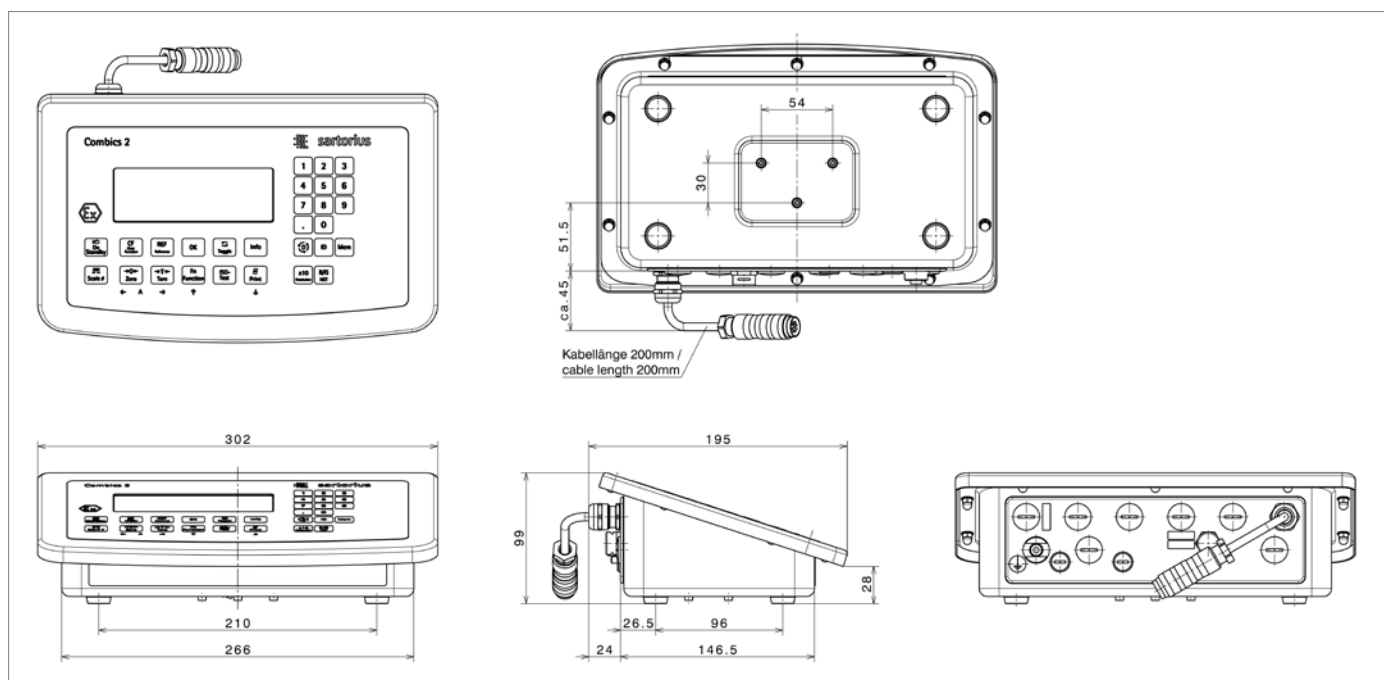
(IEC 61010-1)

### Interference resistance

In compliance with EN 61326-1

Industrial areas

(IEC 61326-1)



## Application Combics 2 Ex

Keyboard	28 keys
Display	14 sectors 20 mm weighing value display plus application symbols
Weighing	•
Data transfer to printer   PC	•
ISO test	•
Counting	•
Percentage weighing	•
Averaging	•
Checkweighing	•
Totalizing	•
Combination of 3 applications	•
Weighing and counting to target value (from memory)	•
SQ Min (minimum sample weight)	•
Identifier (4 × 40 characters)	•
Product data memory	•
Date   Time	•
Bulk counter connection	•
Internal alibi memory	•

Combics Ex indicator

**Order Number**  
CAIXS2

### Options

The choice of many different options allows the indicator to be customized to suit the user's specific applications. If the option code is given with the order, the indicator is delivered with the required features. (Options can be retrofitted by ordering the respective accessories).

### Options and Accessories

Description	Order number as option	Order number as accessory
<b>COM 1</b>		
RS232	A21	
RS422	A22	
RS485	A23	
<b>Scale Connection (WP1)</b>		
A   D Converter	Standard (A15)	
Interface RS 232 for digital platform	A16	YD007-X
Interface RS 485 for digital platform	A19	YD007-X

### Disconnectable analogue Scale Connection

Disconnectable plug-in between indicator – platform, indicator with female connector (0.2 m) plug included separately	X2
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### Cable for digital Scale Connection

Connecting cable for IS-X Platform or Signum Ex via RS232 to WP1 – 14-pin round male connector (6 m) (Option A16 necessary)	M20	YCC02-XR14M6
Connecting cable for IS-X Platform or Signum Ex via RS485 to WP1 – 14-pin round male connector (6 m) (Option A17 necessary)	M26	YCC02-XR14M6

### Cable for COM1

Connecting cable for IS-X Platform or Signum Ex via RS232 or RS485 – 14-pin round male connector (6 m) (Option A21 or A23)	M13	YCC02-XR14M6
Connecting cable for YDI05-Z via RS232 or RS485 – 14-pin round female connector (0.2 m) (Option A21 or A23)	M14	YCC02-XR14F02
Connecting cable for YDI05-Z via RS422 – 14-pin round female connector (0.2 m) (Option A22) (YDI05-Z – option M54 needs to be ordered)	M21	

## Accessories

Description	Order number
<b>Safety barrier</b> Ex interface converter, for installation in safe area	YDI05-Z
<b>Printer for installation in safe area (connection via YDI05-Z)</b>	
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

## Supply voltage

Via external power supply, connection via 14-pin round socket (20 cm cable)	
Power supplies for installation in hazardous area	
ATEX (100-240V)	YPSC01-X
ATEX (24V)	YPS02-XV24
FM (US)	YPS02-XUR
CSA	YPS02-XKR
Power supplies for installation in safe area	
ATEX (100-240V)	YPSC01-Z
ATEX (24V)	YPS02-XV24
FM   CSA	YPS02-ZKR
External battery for installation in hazardous area ATEX, FM, CSA	YRB02-X

## Software

SNLE Sartorius Nice Label Express Software	YAD02IS
WinScale	YSW03
SartoCollect	YSC02
Sartorius GMP Connect	YSW03-0001
Sartorius OPC Server	62890PC

## Miscellaneous

Cable without connectors, LiY 6x(2x0,14C)Y, blue sheath, to configure own cable, 1m = 1 piece	YCC422-X
Cable without connectors, 2x0.22 LiCY, blue sheath, to configure own cable, 1m = 1 piece	YCC485-X
Round male connector for creating your own cables, 14-pin, IP65	69Y03166

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We reserve the right to make technical modifications.  
Printed in Germany.  
Printed on chlorine-free bleached paper. | W  
Publication no.: GIS-2050-e15072  
Order no.: 9498 700 00501  
Ver. 07 | 2015