Nexgen Scales Trading

Minebea intec
The true measure

Industrial scales Combics
Complete scales CAS.../CAH... for precise measurement results

GERMAN QUALITY

German Quality

> The complete scales of the Combics series are characterized by precision and easy operation concepts. Their robust, high resolution weighing platforms ensure reliable weighing and thus less product loss. Versatile interfaces enable optimal integration for recording and documenting data.

The right solution for all of these uses:

| Weighing | Counting | Filling and dosing | Formulation | Fill quantity control | Statistics | Classification | Statistical process control |

Technical specifications

General specifications for complete scales CAS.../CAH...

Parameter	Description
Possible combinations	– 2 weight indicators (display and control units) – 5 load ranges of between 16 kg and 300 kg – 3 platform dimensions
Material	Weight indicator: stainless steel Weighing platform: – Industrial grade epoxy resin coating, colour: NCSS3502–B (RAL7040), or galvanized steel – Load plate, stainless steel
Weight indicator	Provided, optionally with bolting plate or column to mount on the weighing platform
Miscellaneous	– 4 x height–adjustable levelling feet – Levelling equipment – Overload protection
Resolution (non–verifiable)	Up to 640,000 d
Resolution (verifiable, Class II)	Up to 34,000 e, depending on model
Weighing system	Monolytic measurement system, with integrated calibration weight switching
IP protection rating	– Weighing platform IP44, IP65 or IP67 – Weight indicator IP69K
Net weight/gross weight	CA*ED-*: 18 kg/24 kg CA*FE-*: 32 kg/39 kg CA*IG-*: 72 kg/88 kg
Package dimensions	CA*ED-*: 730× 610× 360 mm CA*FE-*: 840× 740× 370 mm CA*IG-*: 920× 720× 450 mm
Data interface	RS232 Optional: – RS232 – RS485/422 – Analogue output 0/4...20 mA, 0-10 V, 16 bit – Digital I/O (5 inputs and 5 outputs) – Profibus DP – Ethernet TCP/IP – PS/2 – 2nd built-in A/D converter
Cable length between indicator and platform	CA*ED-*: 3 m CA*FE-*/CA*IG-*: 6 m
Internal Alibi memory	Optional 130,000 data sets
Comprehensive accessories	– Frame for pit installation – Roller conveyors – Benches
Electrical supply	100–240 V_{AC} (−15%/+10%), 50–60 Hz, max. 17 W/23 VA Optional: – 15.5–24 V_{DC} (±10%), max. 12 W – 13–17 V_{AC} (±10%), 50–60 Hz, max. 12 W
Emissions	In accordance with EN 61326-1, Class B (IEC 61326-1)
Electrical safety	In accordance with EN 61010-1 (IEC 61010-1) EN 60950 (IEC 950)
Immunity to interference	In accordance with EN 61326-1, industrial areas (IEC 61326-1)

Indicators for complete scales CAS.../CAH...

Weight indicator Combics 1

Weight indicator Combics 3

User interface	Combics 1	Combics 3
Keyboard	6 keys	30 keys, alphanumeric keyboard
Display	14 segments 20 mm weight readout	Graphic, 20 mm weight readout plus application symbols

Applications	Combics 1	Combics 3
Easy weighing	●	●
Data transfer to printer/PC	●	●
ISO test	●	●
Counting		●
Percentage weighing		●
Averaging		●
Checking/Classification		●
Totalising		●
Combination of 3 applications		●
Sample weight and counting to target value (from memory)		●
SQ Min	●	●
Identifier		●
Product data memory		●
Date/Time		●
Integrated red/green/yellow display		●
Internal Alibi memory (optional)		●

Weighing platform CAS*E…

Weighing platform CAS*E…

Order code weighing range		CAS*E-16ED	CAS*E-34ED	CAS*E-64ED	CAS*E-64ED
Order code resolution		–H	–H	–H	–S
Maximum weighing range	kg	16	34	64	64
Readability	g	0.1	0.1	0.1	1
Maximum additive preload	kg	4	4	13	13
Reproducibility	≤± g	0.05	0.07	0.1	0.3
Linearity deviation	≤± g	0.2	0.2	0.3	0.5
Max. load bearing capacity	kg	130	130	130	130
Platform dimensions (W×D×H)	mm	400×300×120	400×300×120	400×300×120	400×300×120
Net weight, approx.	kg	16	16	16	16
Operating temperature range	°C	0…+40	0…+40	0…+40	0…+40
Storage temperature range	°C	–10…+40	–10…+40	–10…+40	–10…+40
IP protection rating		IP65	IP65	IP44	IP65

Weighing platform CAS*E…

Order code weighing range		CAS*E-16ED	CAS*E-34ED	CAS*E-64ED
Order code resolution		–HCE	–HCE	–SCE
Maximum weighing range	kg	16	34	64
Readability	g	0.1	0.1	1
Accuracy class		II	II	II
Calibration value e	g	1	1	10
Minimum load	g	5	5	50
Operating temperature range Accuracy class II	°C	+10…+30	+10…+30	+10…+30
Accuracy class		III	III	III
Calibration value e	g	0 to 3 kg: 1 3 to 6 kg: 2 6 to 16 kg: 5	0 to 6 kg: 2 6 to 15 kg: 5 15 to 34 kg: 10	0 to 15 kg: 5 15 to 30 kg: 10 30 to 64 kg: 20
Minimum load	g	20	40	100
Operating temperature range Accuracy class III	°C	+10…+40	+10…+40	0…+40
Maximum additive preload	kg	4	4	13
Reproducibility	≤± g	0.05	0.07	0.3
Linearity deviation	≤± g	0.2	0.2	0.5
Max. load bearing capacity	kg	130	130	130
Platform dimensions (W×D×H)	mm	400×300×120	400×300×120	400×300×120
Net weight, approx.	kg	16	16	16
Storage temperature range	°C	–10…+40	–10…+40	–10…+40
IP protection rating		IP65	IP65	IP65

Weighing platform CAS*G.../CAH*G...

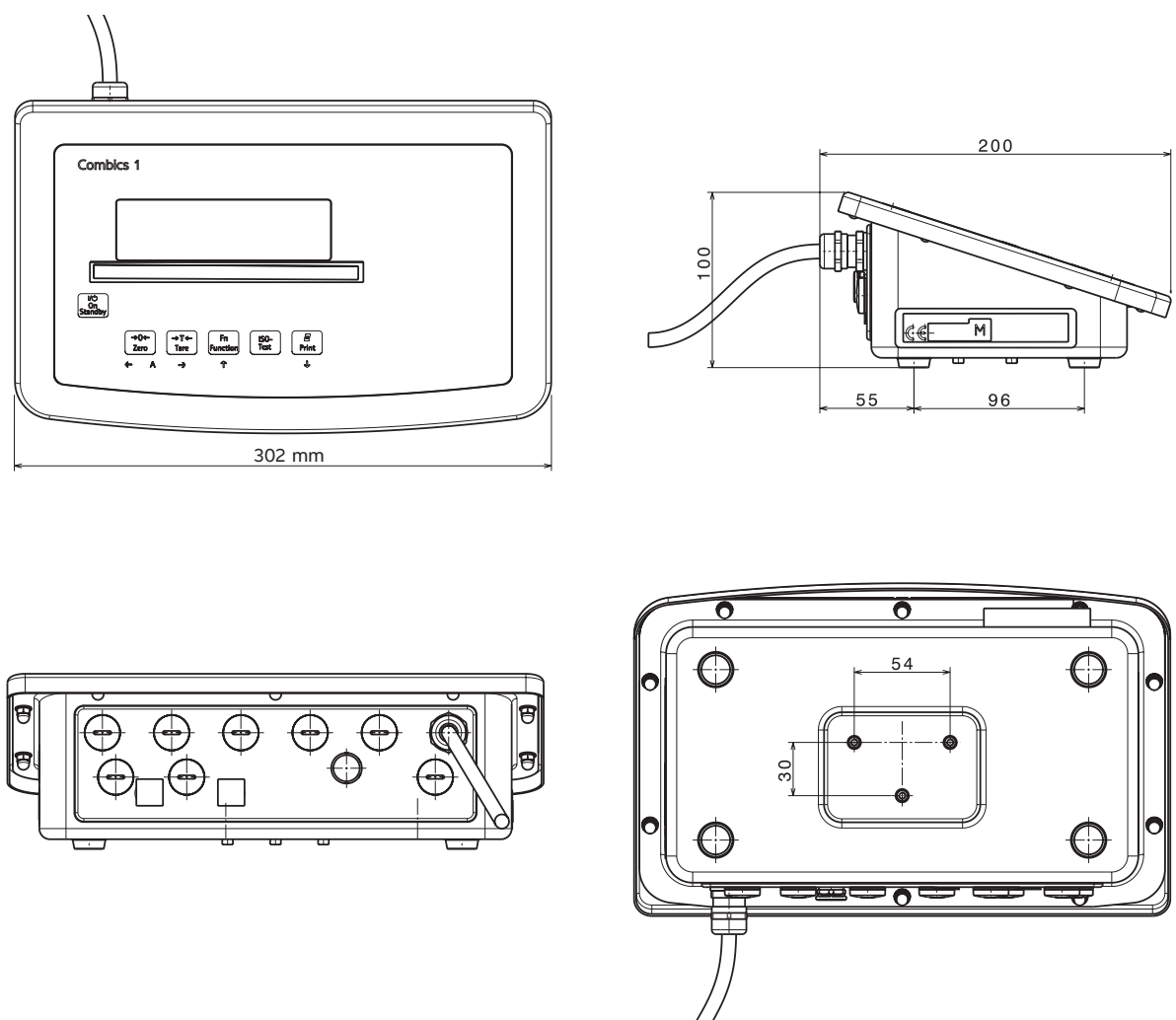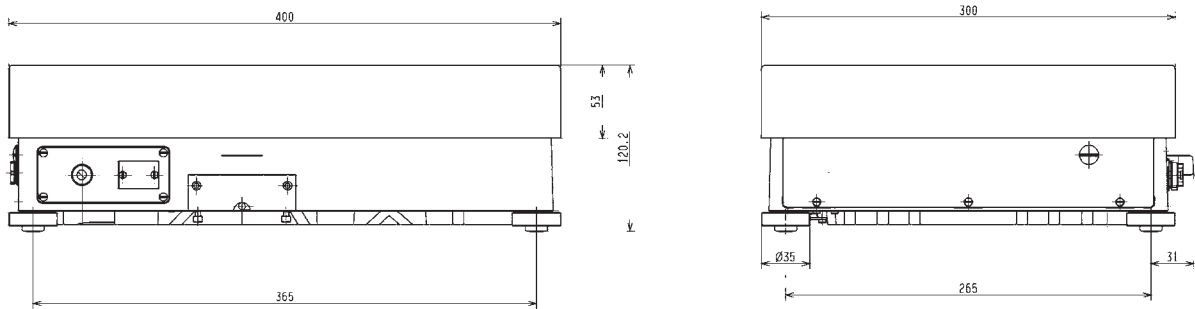Weighing platform CAS*G...FE...

Weighing platform CAH/CAS*G...IG...

Order code weighing range		CAH*G-64FE	CAH*G-64FE	CAS*G-150IG	CAH*G-150IG	CAS*G-300IG	CAH*G-300IG
Order code resolution		–S	–SCE	–H	–HCE	–H	–HCE
Maximum weighing range	kg	64	64	150	150	300	300
Readability	g	1	1	1	1	2	20
Accuracy class		–	II	–	II	–	II
Calibration value e	g	–	10	–	10	–	20
Minimum load	g		50		50		1000
Accuracy class		–	III	–	III	–	III
Calibration value e	g	–	0 to 15 kg: 5 15 to 30 kg: 10 30 to 64 kg: 20	–	0 to 30 kg: 10 30 to 60 kg: 20 60 to 150 kg: 50	–	0 to 60 kg: 20 60 to 150 kg: 50 150 to 300 kg: 100
Minimum load	g		100		200		400
Maximum additive preload	kg	16	16	30	18	60	13
Reproducibility	≤± g	0.5	0.5	1	1	2	2
Linearity deviation	≤± g	2	2	4	4	8	8
Max. load bearing capacity	kg	130	130	600	600	600	600
Platform dimensions (W×D×H)	mm	560×450×95	560×450×95	800×600×117	800×600×117	800×600×117	800×600×117
Net weight, approx.	kg	30	30	70	70	70	70
Operating temperature range	°C	0 ... +40	0 ... +40	0 ... +40	0 ... +40	0 ... +40	0 ... +40
Ambient temperature range	°C	–10 ... +40	–10 ... +40	–10 ... +40	–10 ... +40	–10 ... +40	–10 ... +40
IP protection rating		IP67	IP67	IP67	IP67	IP67	IP67

Technical diagrams

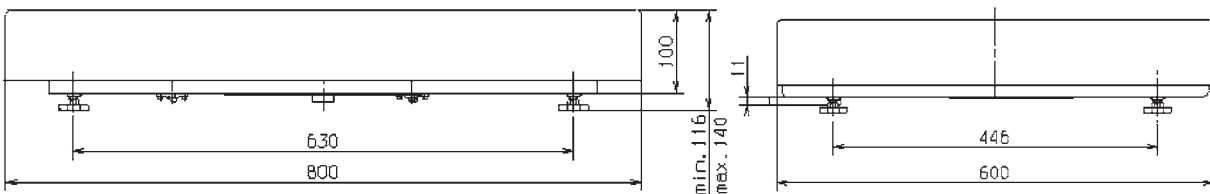Combics 1

302 mm

200

100

55

96

54

30

All dimensions in mm

Weighing platform CAS*E...

Weighing platform CAS*G...FE.../CAH*G...FE...
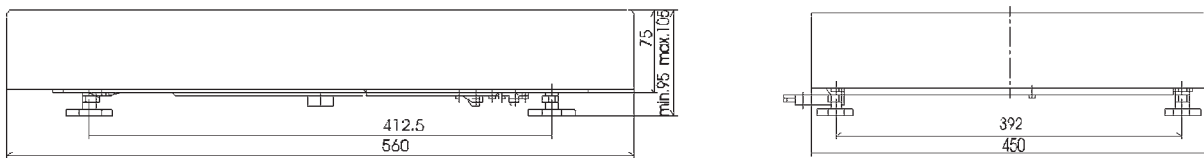
Weighing platform CAS*G...IG.../CAH*G...IG...

All dimensions in mm

Options

The choice of different options enables the scale to be customised.
If the option code is given when ordering, the scale will be delivered with the desired features (retrofitting of options is possible by ordering the relevant accessories)

Interfaces for complete scales CAS.../CAH...

COM 1/2	Order reference as option	Weight indicator Combics 1	Weight indicator Combics 3	Accessories Order reference
COM 1: RS232		Standard	Standard	
COM 2: RS232		–	Standard	

UniCOM	Order reference as option	Weight indicator Combics 1	Weight indicator Combics 3	Accessories Order reference
RS232	A1	●	●	YDO02C-232
RS422	A2	●	●	YDO02C-485
RS485	A3	●	●	YDO02C-485
Digital 5 inputs/5 outputs	A5	●	●	YDO02C-DIO
Analogue output	A9	●	●	YDO02C-AO
Profibus DP	B1	●	●	YDO02C-DP
Ethernet TCP/IP	B9	●	●	YDO02C-ETH

Equipment for complete scales CAS.../CAH...

	Order reference as option	Weight indicator Combics 1	Weight indicator Combics 3	Accessories Order reference
24 volt power supply	L8	●	●	
Internal Alibi memory	E5		●	
Connector cable for barcode scanner YBR05FC, – 5-pin DIN socket, 1 m	M8		●	
Test protocol final production test (scale)	Z3	●	●	

Application kits for weight indicators Combics (instead of the basic applications stated below)

	Order reference as option	Weight indicator Combics 1	Weight indicator Combics 3	Accessories Order reference
Dosing Basic – automatic one-component filling to target weight for filling or removal dosing with item counter, totalising and statistical function	H3		●	
Dosing Plus – as "Dosing Basic", plus: dosing optimisation, material and container weight monitoring, 100 product memory	H4		●	
Combination of the user programs: weighing, counting, neutral weighing, percentage weighing, animal weighing; checking, classifying (3 or 5 classes); totalising; up to 3 applications can be combined with each other	I2		●	

Connection cable for complete scales CAS.../CAH...

	UniCOM	COM1	COM2 only for Combics 3
Connection cable for printer YDP 14/04IS, 9-pin D–SUB connector, 6 m	M33	M3	M23
Connection cable for printer YDP 21 or PC, 9-pin D–SUB socket, 6 m	–	M9	–
Connection cable for PC, 9-pin D–SUB socket	M34	M4	M24
Connection cable for digital Minebea Intec scales, 25-pin D–SUB connector, 6 m	–	M2 [*1]	M22
Connection cable for various accessories, 25-pin D–SUB socket	–	M1	–
Connection cable for digital Minebea Intec scales, 12-pin round connector, 6 m	–	M5 [*1]	M25
Connection cable for various accessories, 12-pin round connector	–	M6	–
Connection cable for various accessories and IS platform, 12-pin round connector, 6 m	–	M7 [*1]	M27
Ethernet connection cable with RJ45 connector, 7 m	M38	–	–

[*1] only for CAH3, CAS3

Accessories

Cable as accessory for complete scales CAS.../CAH...

	Order reference
Connector cable with cable screw for bar code reader YBR05FC, open cable ends/5-pin DIN socket, 1 m	YCC02-BR02
Connection cable with cable screw for various accessories, open cable ends/25-pin D–SUB socket, 6 m	YCC02-D25F6
Connection cable with cable screw for digital Minebea Intec scales, open cable ends/25-pin D–SUB connector, 6 m	YCC02-D25M6
Connection cable with cable screw for printer YDP21 or PC, open cable ends/9-pin D–SUB socket, 6 m	YCC02-D09F6
Connection cable with cable screw for printer YDP14/04IS, open cable ends/9-pin D–SUB socket, 6 m	YCC02-D09M6
Connection cable with cable screw for digital Minebea Intec scales, open cable ends/12-pin round connector, 6 m	YCC02-R12M6
Connection cable with cable screw for various accessories and IS platforms, open cable ends/12-pin round connector, 6 m	YCC02-R12F6
Connection cable with cable screw for various accessories, open cable ends/open cable ends, 6 m	YCC02-RELAIS02
Connection cable with cable screw for Ethernet with RJ45 connector on both sides, 7 m	YCC02-RJ45M7

Software for complete scales CAS.../CAH...

	Order reference
SartoConnect	YSC03

Printers for complete scales CAS.../CAH...

	Order reference
Needle high speed matrix printer	YDP21
Strip/label printer with thermal direct printing mechanism, 60 mm paper width	YDP05
Strip/label printer with thermal direct printing mechanism, 108 mm paper width	YDP14IS-OCEUV
Strip/label printer with thermal transfer printing mechanism, 108 mm paper width	YDP14S-OCEUVTH

Additional accessories for complete scales CAS.../CAH...

	Order reference
Bar code reader	YBR05PS2
Dust covers for display unit (2 items)	YDC01CI
Plug and socket connection kit to connect analogue platforms to indicators (separable connection)	YAS99I
Cable gland (PG) for cables with diameter 4.5 to 9 mm, M16 × 1.5	YAS04CIS
Kit for control panel installation	YAS07CI
Relay box to connect scales to external controls, with 4 (5) relay outputs (250 V/3A) and 1 optocoupler input (0–30 V)	YSB01
Digital input and output module to connect from Combics 3 to external controls with 8 open collector outputs (50 mA) and 7 TTL–compatible inputs (0–30 V)	YSB02
Relay box to connect from Combics 3 to external controls	IE11357

Mechanical accessories for complete scales CAS.../CAH...

	Order reference
Stainless steel wall bracket	YDH01CIS
Stainless steel wall bracket, weight indicator, tiltable	YDH02CIS
Stainless steel floor–mounted column, height 1.1 m	YDH03CIS
Stainless steel column base (4 supports)	YBP03CIS
Barcode reader holder, attach to: floor–mounted support, bench stand, complete scale supports	YBH01CWS
Painted roller conveyor for platform dimensions 400×300 mm	YRC01EDA
Stainless steel roller conveyor for platform dimensions 400×300 mm	YRC01EDS
Painted pit frames for platform dimensions 800×600 mm	YEG04IP
Stainless steel pit frames for platform dimensions 800×600 mm	YEG01IP
Installation kit for pit frames	YAS04IS
Painted roller conveyor for platform dimensions 800×600 mm	YRC01IGP
Stainless steel roller conveyor for platform dimensions 800×600 mm	YRC01IGS

Ordering information

Ordering system legend for complete scales CAS.../CAH...						
Product line/ applications	Material/design		Weighing range (kg)	Platform dimensions		Display resolution
CAS1	E	–	16	ED	–	S
CAH3	G		34	FE		H
			64	IG		SCE
			150			HCE
			300			

Example order code CAS1E–34ED–H:

Resolutions	
–S Single range	≥ 60,000 d
–H Single range	≥ 100,000 d

Resolutions	
–SCE Single range	≥ 60,000 d, Class II, e = 10 d
–HCE Single range	≥ 100,000 d, Class II, e = 10 d

Base frame material
E = Epoxy resin, industrial grade
G = Galvanised steel

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The products and solutions presented in this data sheet make major contributions in the following sectors:

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