

Bench- and floor scale Combics®

Tailor-made solutions for challenging weighing tasks



OPC UA
upgradable



German Quality



The industrial scales series Combics® combines precision with versatility for the pharmaceutical, chemical and logistics industries. Choose the perfect complete scale for your specific requirements from an extensive range.

The right solution for all of these applications:



Weighing



Counting



Filling and
dosing



Formulation



Filling quantity
controls



Statistics



Classification

The industrial scales Combics® are a combination of precision and versatility

Long term reliable measuring results

All platforms of the industrial scales Combics® are fitted with established, high-resolution strain-gauge technology. One or four integrated load cells ensure precise weighing results in the long term and thus guarantee long-term investment value.

Intuitive operation

Simple operation is the main focus for the three indicators of the industrial scales series Combics®. The high-contrast display ensures good readability, while the arrangement of the keys according to the application level ensures intuitive operation. You can choose the perfect indicator for your application, minimise familiarisation time and losses in the value-creation process.

Smart software applications

Simple-to-use application programs for versatile applications, such as counting or checking, cover various weighing tasks. The complete documentation of the entire weighing process supports your quality management. A comprehensive range of interfaces to connect with your data management system and your process control enables optimum connectivity and integration into your system.

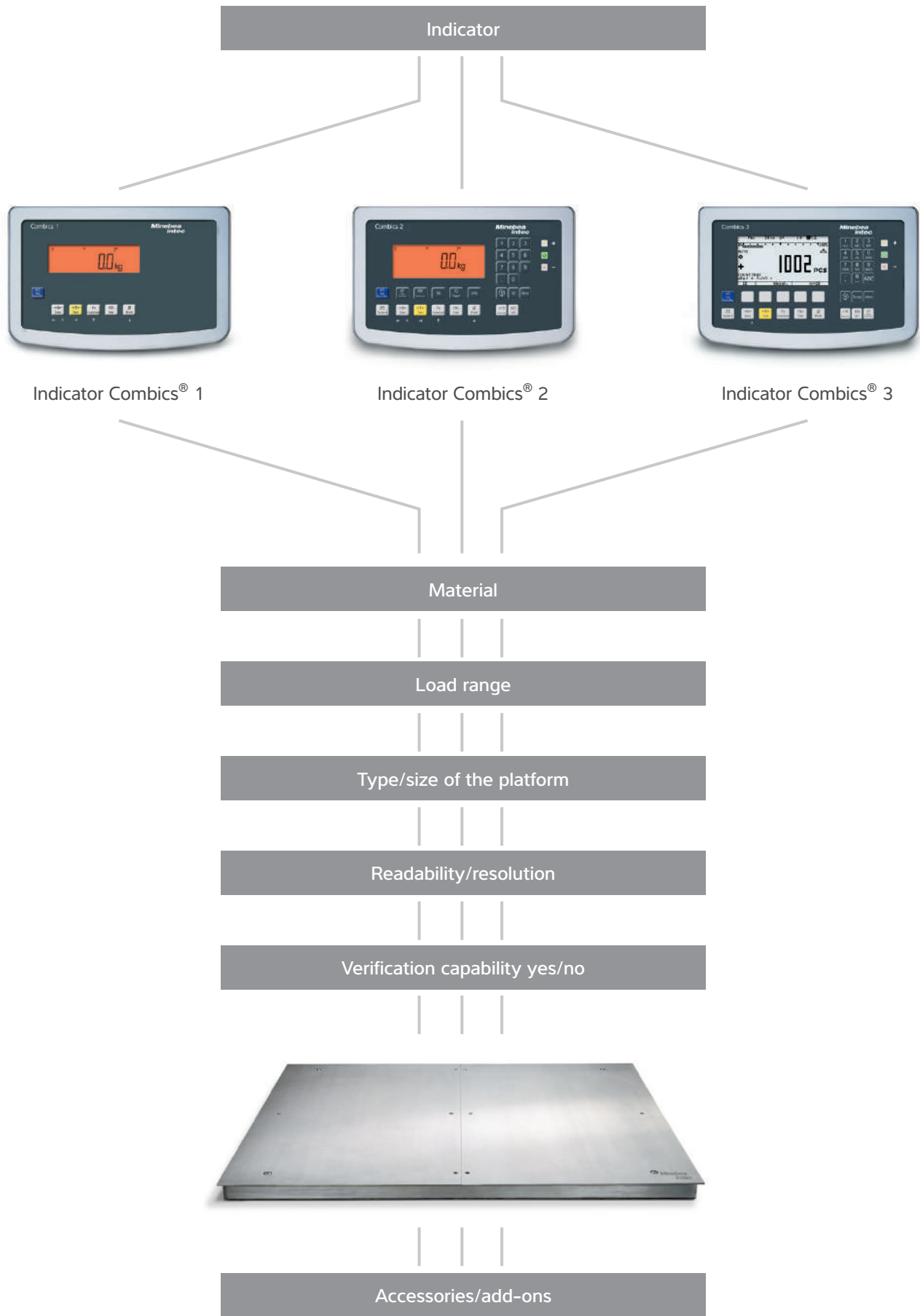
- RS 232
- RS 485/422
- Analogue 4–20 mA
- Digital inputs and outputs
- ProfiBus DP
- Ethernet TCP/IP

Certificates included

Our entire range of Combics® platforms is certified in accordance with GMP, ISO, ATEX, OIML and FDA. We can provide the certificates if required and for ensuring your quality management system.

You can configure the perfect industrial scale for your requirements.

The choice of indicators and platforms helps you to configure your industrial scale precisely to your requirements. A wide range of accessories covers every requirement.



Technical specifications

General technical data for Combics® complete scales, indicators and platforms

Parameters	Description	
Possible combinations	CAS... – 2 weight indicators – 5 load ranges from 16 kg to 300 kg – 3 platform dimensions	CAW... – 3 weight indicators – 10 load ranges from 3 kg to 3 t – 13 platform dimensions
Material	CAS... Indicator: Stainless steel Weighing platform: – Powder coating resistant against impact, scratches and abrasion Colour: NCSS3502-B (RAC7040), and galvanised steel Load plate: – Stainless steel	CAIS(L)... Indicator: Stainless steel
	CAW.P./CAAPP... Indicator: Stainless steel Weighing platform: – Galvanised steel and powder coating resistant against impact, scratches and abrasion, Colour: NCSS3502-B (RAC7040) Load plate: – Stainless steel AISI304 (up to 800 × 600 mm) – Powder-coated steel (from 800 × 800 mm)	CAW.S.../CAAPS... Indicator: Stainless steel Weighing platform: – Stainless steel AISI304 (optional AISI316) Load plate: – Stainless steel AISI304 (optional AISI316)
Indicator	Provided, optionally with bolting plate or column to mount on the platform	
Miscellaneous	– 4× height-adjustable levelling feet – Levelling equipment – Overload protection	
Resolution (non-verifiable)	CAS... up to 640,000 d	CAW.../CAAP... Up to 60,000 d, depending on model
Resolution (verifiable, Class II, III)	Accuracy class II: CAS... Up to 34,000 e, depending on model	Accuracy class III: CAW.../CAAP... Depending on model, up to 3 × 3,000 e (MR)
Weighing system	CAS... Monolithic measuring system with integrated motorised calibration weight	CAW.../CAAP... One or four load cells C3
IP protection rating	CAS... – Weighing platform: IP44, IP65 and IP67 – Indicator: IP69K	CAIS(L)... – Indicator CAISL: IP44 – Indicator CAIS: IP69K
	CAW.P.../CAAPP... – Weighing platform: IP65 – Indicator: IP44	CAW.S.../CAAPS... – Weighing platform: IP67 resp. IP68, optional IP69K – Indicator: IP69K
Data interface	CAS.../CAW.../CAIS(L)... RS 232 (standard) Optional: – RS 232 – RS 485/422 – Analogue output 0/4...20 mA, 0–10 V, 16-bit – Digital I/O (5 inputs and 5 outputs)	– ProfiBus DP – Ethernet TCP/IP and ModBus TCP – PS/2 – DeviceNet – Second built-in A/D converter
Internal Alibi memory	Optional: 130,000 data sets	
Load plate	Optional: – CAW.S4.../CAAPS4...: with folding load plate – CAW.P4.../CAAPP4...: in stainless steel AISI304 (from 800×800 mm)	
Extensive range of accessories CAS... and CAW...P	– Ramps – Frame for pit installation – Roller conveyors – Benches	– Cables – Printer – Wall brackets – Software – Columns
Electrical supply	100–240 V AC (–15%/+10%), 50–60 Hz, max. 17 W/23 VA Optional: – 15.5–24 VDC (±10%), max. 12 W – 13–17 VAC (±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) EN60950 (IEC950)	
Immunity to interference	In accordance with EN 61326-1, industrial areas (IEC 61326-1)	
Net weight/gross weight	CAS/ED... (400 × 300 mm) 16 / 21 kg CAS/FE... (560 × 400 mm) 30 / 36 kg CAS/IG... (800 × 600 mm) 70 / 85 kg	

Parameters	Description		
Net weight/gross weight	CAW/CAAP...DC...	(320×240 mm)	6.4 / 7.9 kg
	CAW/CAAP...ED...	(400×300 mm)	11.5 / 13.3 kg
	CAW/CAAP...FE...	(500×400 mm)	21 / 24 kg
	CAW/CAAP...GF...	(650×500 mm)	33 / 45.5 kg
	CAW/CAAP...IG...	(800×600 mm)	46 / 63 kg
	CAW/CAAP...IL...	(800×800 mm)	76 / 131 kg
	CAW/CAAP...LI...	(1000×800 mm)	86 / 141 kg
	CAW/CAAP...LL...	(1000×1000 mm)	102 / 157 kg
	CAW/CAAP...NL...	(1250×1000 mm)	133 / 188 kg
	CAW/CAAP...NN...	(1250×1250 mm)	158 / 240 kg
	CAW/CAAP...RN...	(1500×1250 mm)	177 / 264 kg
	CAW/CAAP...RR...	(1500×1500 mm)	230 / 317 kg
	CAW/CAAP...WR...	(2000×1500 mm)	422 / 512 kg
CAS.../CAW... = approx. +2.6 kg for indicator			

Indicators CAIS(L)... and indicators complete scales Combics® CAS... and CAW...



Indicator Combics® 1



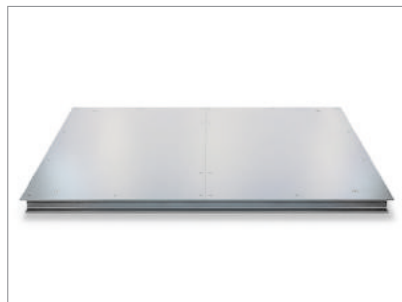
Indicator Combics® 2



Indicator Combics® 3

User interface	Combics® 1 – CAIS(L)/CAS.../CAW...	Combics® 2 – CAIS(L)/CAW...	Combics® 3 – CAIS(L)/CAS.../CAW...
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	Graphics, 20 mm weight readout plus application symbols
Applications	Combics® 1 – CAIS(L)/CAS.../CAW...	Combics® 2 – CAIS(L)/CAW...	Combics® 3 – CAIS(L)/CAS.../CAW...
Easy weighing	•	•	•
Data transfer to printer/PC	•	•	•
ISO test	•	•	•
Counting		•	•
Percentage weighing		•	•
Averaging		•	•
Checking/classification		•	•
Totalizing		•	•
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)		•	•
Statistical process control (optional)			•
Dosing Basic (optional)			•
Dosing Plus (optional)			•
Interfaces	Combics® 1 – CAIS(L)/CAS.../CAW...	Combics® 2 – CAIS(L)/CAS.../CAW...	Combics® 3 – CAIS(L)/CAS.../CAW...
RS232	•	•	•
PS/2		•	•
2. RS232			•
UniCOM (optional)	•	•	•

Weighing platform CAW...P.../CAAPP...



Examples of available platforms

Order code	Maximum weighing range in kg	Readability in g					Material		Length of platform cables in m
		non-verifiable			verifiable, accuracy class III		E: Stainless steel; V: Galvanised; P: Powder-coated		
		15,000 d	30,000 d	60,000 d	3,000 e	2 X 3,000 e MR	Load plate	Base	
		- L	- I	- S	- BCE	- NCE			
1-3DC	3	0.2	0.1	0.05	1	0.5/1	E	V	3
1-6DC	6	0.5	0.2	0.1	2	1/2	E	V	3
1-15DC	15	1	0.5	0.2	5	2/5	E	V	3
1-30ED	30	2	1	0.5	10	5/10	E	V	3
1-30FE	30	2	1	0.5	10	5/10	E	V	3
1-60ED	60	5	2	1	20	10/20	E	V	3
1-60FE	60	5	2	1	20	10/20	E	V	3
1-60GF	60	5	2	1	20	10/20	E	P	3
1-60IG	60	5	2	1	20	10/20	E	P	3
1-150FE	150	10	5	2	50	20/50	E	V	3
1-150GF	150	10	5	2	50	20/50	E	P	3
1-150IG	150	10	5	2	50	20/50	E	P	3
4-150II	150	10	5	–	50	20/50	P	P	6
4-150LL	150	10	5	–	50	20/50	P	P	6
4-150NN	150	10	5	–	50	–	P	P	6
1-300GF	300	20	10	5	100	50/100	E	P	3
1-300IG	300	20	10	5	100	50/100	E	P	3
4-300II	300	20	10	–	100	50/100	P	P	6
4-300LL	300	20	10	–	100	50/100	P	P	6
4-300NN	300	20	10	–	100	50/100	P	P	6
4-600II	600	50	20	–	200	100/200	P	P	6
4-600LI	600	50	20	–	200	100/200	P	P	6
4-600LL	600	50	20	–	200	100/200	P	P	6
4-600NL	600	50	20	–	200	100/200	P	P	6
4-600NN	600	50	20	–	200	100/200	P	P	6
4-600RN	600	50	20	–	200	100/200	P	P	6
4-600RR	600	50	20	–	200	100/200	P	P	6
4-600WR	600	50	20	–	200	100/200	P	P	6
4-1500-II	1500	100	50	–	500	200/500	P	P	6
4-1500LI	1500	100	50	–	500	200/500	P	P	6
4-1500LL	1500	100	50	–	500	200/500	P	P	6
4-1500NL	1500	100	50	–	500	200/500	P	P	6
4-1500NN	1500	100	50	–	500	200/500	P	P	6
4-1500RN	1500	100	50	–	500	200/500	P	P	6
4-1500RR	1500	100	50	–	500	200/500	P	P	6
4-1500WR	1500	100	50	–	500	200/500	P	P	6

Order code	Load range in kg	Readability in g					Material		Length of platform cable in m
		non-verifiable			verifiable, accuracy class III		E: Stainless steel; V: Galvanised; P: Powder-coated		
		15,000 d	30,000 d	60,000 d	3,000 e	2X 3,000 e MR	Load plate	Base	
		- L	- I	- S	- BCE	- NCE			
4-3000II	3000	200	100	–	1000	500/1000	P	P	6
4-3000LI	3000	200	100	–	1000	500/1000	P	P	6
4-3000LL	3000	200	100	–	1000	500/1000	P	P	6
4-3000NL	3000	200	100	–	1000	500/1000	P	P	6
4-3000NN	3000	200	100	–	1000	500/1000	P	P	6
4-3000RN	3000	200	100	–	1000	500/1000	P	P	6
4-3000RR	3000	200	100	–	1000	500/1000	P	P	6
4-3000WR	3000	200	100	–	1000	500/1000	P	P	6

Weighing platform CAW...S.../CAAPS...



Examples of available platforms

Order code	Maximum weighing range in kg	Readability in g							Material E: Stainless steel		Length of platform cable in m	
		non-verifiable		verifiable, accuracy class III								
		15,000 d	30,000 d	3,000 e	2×3,000 e MR - NCE	2×3,000 e MI - MCE	3×3,000 e MR - UCE	6,000 e	- L	- I		- BCE
1-3DC	3	0.2	0.1	1	0.5/1	0.5/1	–	–	E	E	3	
1-6DC	6	0.5	0.2	2	1/2	1/2	0.5/1/2	–	E	E	3	
1-15DC	15	1	0.5	5	2/5	–	1/2/5	–	E	E	3	
1-30ED	30	2	1	10	5/10	5/10	2/5/10	–	E	E	3	
1-30FE	30	2	1	10	5/10	5/10	2/5/10	–	E	E	3	
1-60ED	60	5	2	20	10/20	10/20	5/10/20	–	E	E	3	
1-60FE	60	5	2	20	10/20	10/20	5/10/20	–	E	E	3	
4-60GF	60	5	2	20	10/20	10/20	–	10	E	E	3	
4-60IG	60	5	2	20	10/20	10/20	–	10	E	E	3	
1-150FE	150	10	5	50	20/50	20/50	10/20/50	–	E	E	3	
4-150GF	150	10	5	50	20/50	20/50	–	20*	E	E	3	
4-150IG	150	10	5	50	20/50	20/50	–	20*	E	E	3	
4-150II	150	10	5	50	20/50	–	–	–	E	E	6	
4-150LL	150	10	5	50	20/50	–	–	–	E	E	6	
4-150NN	150	10	5	50	–	–	–	–	E	E	6	
4-300GF	300	20	10	100	50/100	50/100	20/50/100	50	E	E	3	
4-300IG	300	20	10	100	50/100	50/100	20/50/100	50	E	E	3	
4-300II	300	20	10	100	50/100	50/100	–	50	E	E	6	
4-300LL	300	20	10	100	50/100	50/100	–	50	E	E	6	
4-300NN	300	20	10	100	50/100	50/100	–	50	E	E	6	
4-600IG	600	50	20	200	100/200	100/200	50/100/200	100	E	E	6	
4-600II	600	50	20	200	100/200	100/200	–	100	E	E	6	

* Load range for -RCE (6,000 e): 120 or 1,200 kg

Order code	Maximum weighing range in kg	Readability in g							Material E: Stainless steel		Length of platform cable in m
		non-verifiable		verifiable, accuracy class III					Load plate	Base	
		15,000 d	30,000 d	3,000 e	2×3,000 e MR - NCE	2×3,000 e MI - MCE	3×3,000 e MR - UCE	6,000 e			
		- L	- I	- BCE				- RCE			
4-600LI	600	50	20	200	100/200	100/200	–	100	E	E	6
4-600LL	600	50	20	200	100/200	100/200	–	100	E	E	6
4-600NL	600	50	20	200	100/200	100/200	–	100	E	E	6
4-600NN	600	50	20	200	100/200	100/200	–	100	E	E	6
4-600RN	600	50	20	200	100/200	100/200	–	100	E	E	6
4-600RR	600	50	20	200	100/200		–	100	E	E	6
4-600WR	600	50	20	200	100/200	100/200	–	100	E	E	6
4-1500-II	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500LI	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500LL	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500NL	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500NN	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500RN	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500RR	1,500	100	50	500	200/500	200/500	100/200/500	200*	E	E	6
4-1500WR	1,500	100	50	500	200/500	200/500	–	200*	E	E	6
4-3000II	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000LI	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000LL	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000NL	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000NN	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000RN	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6
4-3000RR	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000		E	E	6
4-3000WR	3,000	200	100	1,000	500/1,000	500/1,000	200/500/1,000	500	E	E	6

* Load range for -RCE (6,000 e): 120 or 1,200 kg

Parameters		
Operating temperature range accuracy class III	°C	-10 to +40
Operational temperature range not verified	°C	-10 to +40
Storage temperature range	°C	-10 to +40

Maximum additive dead load and maximum load-bearing capacity

Weighing range	Dimensions in mm	Max dead load*	Centre load-bearing capacity	Side load-bearing capacity	Corner load-bearing capacity
3 kg	320×240	0 kg	50 kg	35 kg	20 kg
6 kg	320×240	4 kg	50 kg	35 kg	20 kg
15 kg	320×240	10 kg	50 kg	35 kg	20 kg
30 kg	400×300	10 kg	130 kg	85 kg	45 kg
60 kg	400×300	25 kg	130 kg	85 kg	45 kg
30 kg	500×400	4 kg	300 kg	200 kg	100 kg
60 kg	500×400	22 kg	300 kg	200 kg	100 kg
150 kg	500×400	25 kg	300 kg	200 kg	100 kg
60 kg	650×500	13 kg	600 kg	400 kg	200 kg
60 kg	800×600	50 kg	900 kg	600 kg	300 kg
150 kg	650×500	17 kg	600 kg	400 kg	200 kg
150 kg	800×600	55 kg	900 kg	600 kg	300 kg
300 kg	650×500	150 kg	600 kg	400 kg	200 kg
300 kg	800×600	140 kg	900 kg	600 kg	300 kg
150 kg	from 800×800	60 kg	4,500 kg	3,000 kg	1,500 kg
300 kg	from 800×800	400 kg	4,500 kg	3,000 kg	1,500 kg
600 kg	from 800×800	1,200 kg	4,500 kg	3,000 kg	1,500 kg
1,500 kg	from 800×800	2,400 kg	4,500 kg	3,000 kg	1,500 kg
3,000 kg	from 800×800	1,500 kg	4,500 kg	3,000 kg	1,500 kg

* The specified dead load only applies to items which do not require verification.

Weighing platform CAS*E...



Weighing platform CAS*E...

Non-verifiable models Weighing range order code		CAS*E-16ED	CAS*E-34ED	CAS*E-64ED	CAS*E-64ED
Resolution order code		-H	-H	-H	-S
Maximum weighing range	kg	16	34	64	64
Readability	g	0.1	0.1	0.1	1
Maximum additive dead load	kg	4	4	13	13
Reproducibility	$\leq \pm$ g	0.05	0.07	0.1	0.3
Non-linearity	$\leq \pm$ g	0.2	0.2	0.3	0.5
Calibration weight value	kg	10,000	10,000	10,000	10,000
Calibration weight accuracy class		F1	F1	F1	F2
Maximum load-bearing capacity	kg	130	130	130	130
Platform dimensions (W x D x H)	mm	400 x 300 x 120	400 x 300 x 120	400 x 300 x 120	400 x 300 x 120
Operational temperature range	°C	0 to +40	0 to +40	0 to +40	0 to +40
Storage temperature range	°C	-10 to +40	-10 to +40	-10 to +40	-10 to +40
IP protection rating		IP65	IP65	IP44	IP65



Weighing platform CAS*E...

Verifiable models Weighing range order code		CAS*E-16ED	CAS*E-34ED	CAS*E-64ED
Resolution order code		-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
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
Maximum additive dead load	kg	4	4	13
Reproducibility	≤± g	0.05	0.07	0.3
Non-linearity	≤± g	0.2	0.2	0.5
Calibration weight value	kg	10,000	10,000	10,000
Calibration weight accuracy class		F1	F1	F2
Maximum load-bearing capacity	kg	130	130	130
Platform dimensions (W x D x H)	mm	400×300×120	400×300×120	400×300×120
Operating temperature range Accuracy class II	°C	+10 to +30	+10 to +30	+10 to +30
Operating temperature range accuracy class III	°C	+10 to +40	+10 to +40	0 to +40
Storage temperature range	°C	-10 to +40	-10 to +40	-10 to +40
IP protection rating		IP65	IP65	IP65

Weighing platform CAS*G...



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

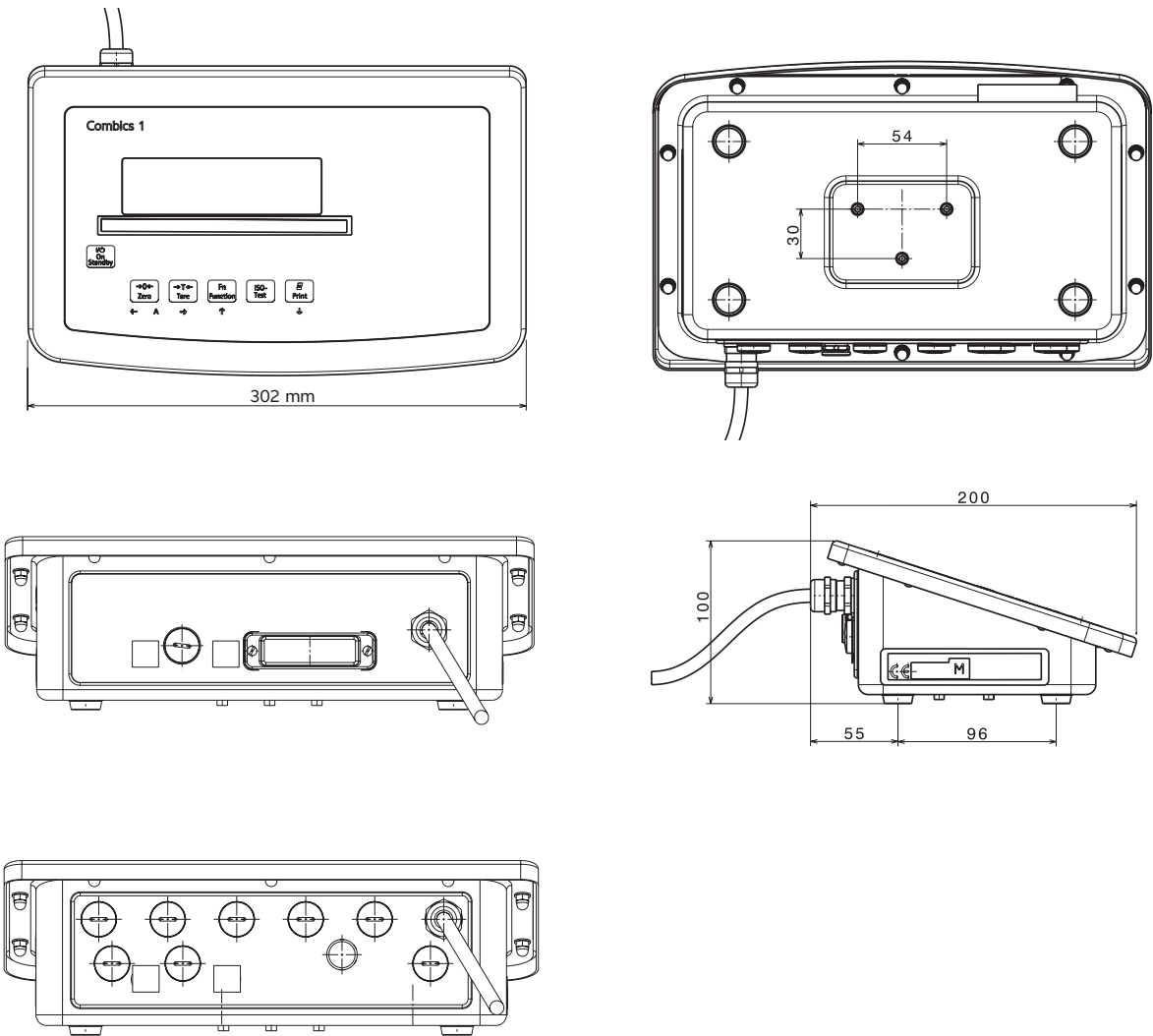


Weighing platform CAS*G...IG...

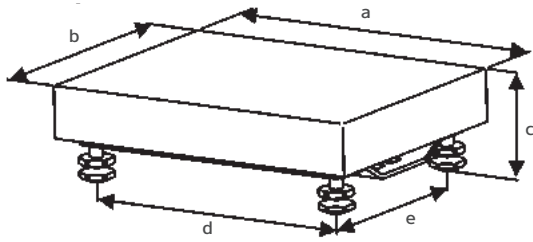
Weighing range order code		CAS*G-64FE	CAS*G-64FE	CAS*G-150IG	CAS*G-150IG	CAS*G-300IG	CAS*G-300IG
Resolution order code		-S	-SCE	-H	-HCE	-H	-LCE
Maximum weighing range	kg	64	64	150	150	300	300
Readability	g	1	1	1	1	2	20
Accuracy class		–	II	–	II	–	II
Calibration value (e)	g	–	10	–	10	–	20
Minimum load	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 dead load	kg	0	0	30	30	60	60
Reproducibility	< ± g	0.5	0.5	1	1	2	2
Non-linearity	< ± g	2.4	2.4	4	4	8	8
Calibration weight value	g	10,000	10,000	50,000	100,000	100,000	100,000
Calibration weight accuracy class		F2	F2	F2	F2	F2	F2
Maximum load-bearing capacity	kg	130	130	600	600	600	600
Platform dimensions (W x D x H)	mm	560×450×95	560×450×95	800×600×117	800×600×117	800×600×117	800×600×117
Operating temperature range	°C	–	0 to +40	–	0 to +40	–	0 to +40
Accuracy class II							
Operating temperature range	°C	–	0 to +40	–	0 to +40	–	0 to +40
accuracy class III							
Operational temperature range not calibrated	°C	0 to +40	–	0 to +40	–	0 to +40	–
Storage temperature range	°C	–10 to +40	–10 to +40	–10 to +40	–10 to +40	–10 to +40	–10 to +40
IP protection rating		IP67	IP67	IP67	IP67	IP67	IP67

Technical diagrams

Indicator CAIS(L). and complete scales Combics® CAS... and CAW...



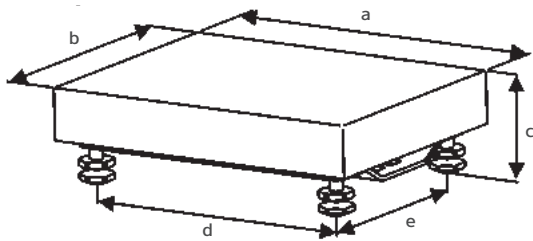
Weighing platform CAW.P/CAAPP...



Type	a	b	c	d	e
...DC-	320	240	70...89	264	184
...ED-	400	300	94...108	344	244
...FE-	500	400	94...108	443	343
...GF-	650	500	146 ± 3	530	430
...IG-	800	600	146 ± 3	680	530

Type: ..DC, ..ED, ..FE, ..GF, ..IG

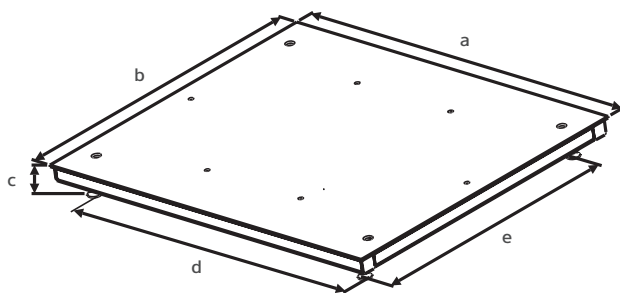
Weighing platform CAW.S/CAAPS...



Type	a	b	c	d	e
...DC-	320	240	70...89	264	184
...ED-	400	300	94...108	344	244
...FE-	500	400	94...108	443	343
...GF-	650	500	92 ± 2	530	430
...IG-	800	600	93 ± 2	680	530

Type: ..DC, ..ED, ..FE, ..GF, ..IG

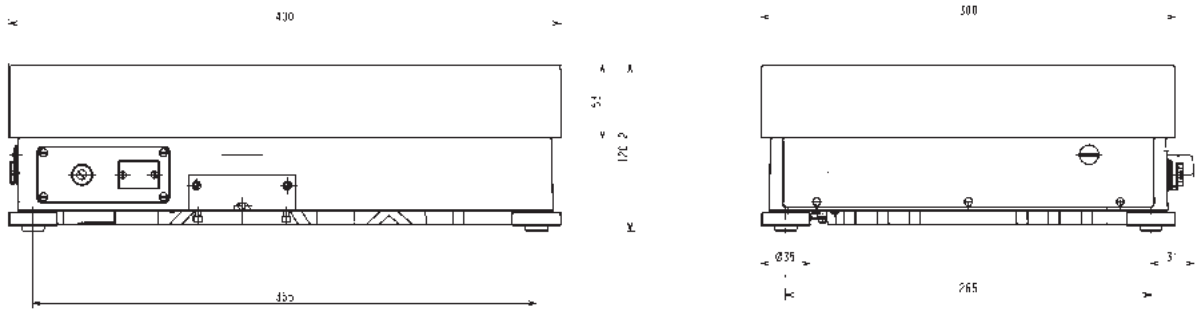
Weighing platform CAW.../CAAP...



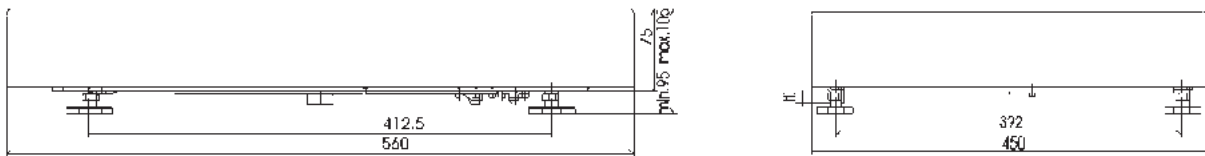
Type	a	b	c	d	e
...II-	800	800	90 ± 2	604	604
...LI-	1,000	800	90 ± 2	804	604
...LL-	1,000	1,000	90 ± 2	804	804
...NL-	1,250	1,000	90 ± 2	1,054	804
...NN-	1,250	1,250	90 ± 2	1,054	1,054
...RN-	1,500	1,250	90 ± 2	1,304	1,054
...RR-	1,500	1,500	90 ± 2	1,304	1,304
...WR-	2,000	1,500	100 ± 5	1,804	1,304

Type: ..II, ..LI, ..LL, ..NL, ..NN, ..RN, ..RR, ..WR

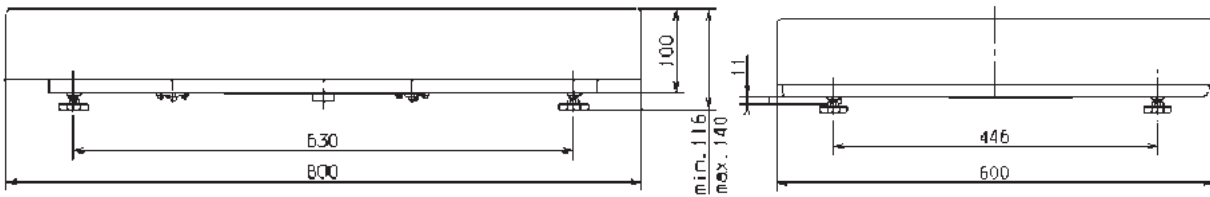
Weighing platform CAS*E...



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



Weighing platform CAS*G...IG...



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. (It is possible to retrofit the options by ordering the relevant accessories.)

Application kits for indicators CAIS(L). and complete scales Combics® CAS.../CAW...

Description	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
Dosing Basic – Automatic one-component filling to target weight for filling or removal dosing with item counter, totalizing and statistical function	H3			•	
Dosing Plus – as "Dosing Basic", plus: dosing optimisation, material and container weight monitoring, 100 product memory	H4			•	
Combics® SPC software for single-station fill quantity control system	H5			•	
Combination of the user programs: weighing, counting, neutral weighing, percentage weighing, animal weighing; checking, classification (3 or 5 classes); totalizing; up to 3 applications can be combined	I2		Standard	•	

Interfaces for indicators CAIS(L). and complete scales Combics® CAS.../CAW...

COM 1/2	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
COM 1: RS 232		Standard	Standard	Standard	
COM 2: RS 232		–	–	Standard	

UniCOM	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
RS 232	A1	•	•	•	YD002C-232
RS 422	A2	•	•	•	YD002C-485
RS 485	A3	•	•	•	YD002C-485
5 input/5 outputs, digital	A5	•	•	•	YD002C-DIO
Analogue output	A9	•	•	•	YD002C-AO
Profibus DP	B1	•	•	•	YD002C-DP
Ethernet TCP/IP	B9	•	•	•	YD002C-ETH
DeviceNet (only CAIS./CAW.S...)	B3	•	•	•	YD002C-DN

2. Weighing point/scale connection (not for CAS...)	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
Analogue platform 10,000 e	A20		•	•	
Interface RS 232 for digital platform	A62		•	•	
Interface RS 485 for digital platform	A72		•	•	

Cable for second scale connection CAIS(L).../CAW...

Description	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
IS platform connection cable to digital interface WP2, 12-pin round socket	M97		•	•	YCC02-R12F6
Connection cable for Minebea Intec scales to digital interface WP2, 25-pin D-SUB connector	M98		•	•	YCC02-D25M6
Connection cable for Minebea Intec scales to digital interface WP2, 12-pin round connector	M99		•	•	YCC02-R12M6

Connection cable for indicators and complete scales Combics® CAIS./CAW.S.../CAS...

Description	UniCOM	COM1	COM2 only for Combics® 3	Accessories order code
Connection cable for printer YDP12/04/14, 9-pin D-SUB connector, 6 m	M33	M3	M23	YCC02-D09M6
Connection cable for printer YDP20-OCE or PC, 9-pin D-SUB socket, 6 m	–	M9	–	YCC02-D09F6
Connection cable for PC, 9-pin D-SUB socket	M34	M4	M24	YCC02-D09F6
Connection cable for digital Minebea Intec scales, 25-pin D-SUB connector, 6 m*	M32	M2	M22	YCC02-D25M6
Connection cable for various accessories, 25-pin D-SUB socket, 6 m	–	M1	–	YCC02-D25F6
Connection cable for digital Minebea Intec scales, 12-pin round connector, 6 m*	M35	M5	M25	YCC02-R12M6
Connection cable for various accessories, 12-pin round socket, 6 m	–	M6	–	YCC02-R12F6
Connection cable for various accessories and IS platform, 12-pin round socket, 6 m*	M37	M7	M27	YCC02-R12F6
Ethernet connection cable with RJ45 connector, 7 m	M38	–	–	YCC02-RJ45M7

* only for Combics® 2 and 3, not for CAS...

Separable scale connection for indicators and complete scales Combics® CAIS(L)./CAW...

Description	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
Indicator WP1 and platform separable plug connection, socket on indicator (0.2 m), connector enclosed separately	X1	•	•	•	
Indicator WP2 and platform separable plug connection, socket on indicator (0.2 m), connector enclosed separately	X6		•	•	

Indicators Combics® CAIS equipment

Description	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3	Accessories order code
Suitable for use in ATEX zones 2 and 22	Y2	•	•	•	

Equipment for indicators and complete scales Combics® CAIS(L)/CAS.../CAW...

Description	Order code as an option	Indicator Combics® 1	Indicator Combics® 2	Indicator Combics® 3
24 volt power supply	L8	•	•	•
Internal Alibi memory	E5		•	•
Suitable for use in zones 2 and 22 ATEX approval certificate: – II 3G Ex nA IIC T4 Gc – II 3D Ex tD IIIC T80°C Dc	Y2	•	•	•
Connection cable for bar code scanner YBR05FC, 5-pin DIN socket, 1 m (not for CAW.P.../CAISL.)	M8		•	•
Scale calibrated at the factory for the installation site (as standard for CAS... verification modes, not for -RCE)	F1	•	•	•
Test protocol final production test (scale)	Z3	•	•	•

Scale platforms Combics® CAW.../CAAP... versions

Combics® CAW.P.../CAAPP...	Order code as an option
Load plate version: Stainless steel V2A	R1
Suitable for use in ATEX zones 2 and 22 (only CAAPP...)	Y2

Stainless-steel weighing platforms CAW.S.../CAAPS...	Order code as an option
Base version: V4A electro-polished base	S2
Load plate version: V4A electro-polished	R2
Other: Folding load plate (for platform dimensions $\geq 800 \times 800$ mm)	T1
Platform in IP69K (with CAW...S4 not for readability $2 \times 3,000$ e MI, $3 \times 3,000$ e MR, 6,000 e)	I69
Suitable for use in ATEX zones 2 and 22	Y2

Accessories

Connection cable for indicators and complete scales Combics® CAISL./CAW.P...

Description	Order code for COM1 and UniCOM, 25-pin D-SUB connector on the Combics® side	Order code for COM2 (only for Combics® 3), 9-pin D-SUB connector on the Combics® side
Connection cable for printer YDP05/14IS, 9-pin D-SUB connector 3 m/6 m	YCC01-01CISLM3	YCC04-D09M6
Connection cable for YDP21 or PC, 9-pin D-SUB socket, 2 m/6 m	7357314	YCC04-D09F6
Connection cable for digital Minebea Intec scales 25-pin D-SUB connector, 3 m/6 m	YCCDI-01M3	YCC04-D25M6
Connection cable for various accessories, 25-pin D-SUB socket, 2 m	7357312	–
Connection cable for digital Minebea Intec scales, 12-pin round connector, 3 m/6 m	YCC01-02ISM3	YCC04-R12M6
Connection cable for various accessories, 12-pin round socket, 3 m/6 m	YCC01-03CISLM3	YCC04-R12F6
Connection cable for various accessories and IS platform, 12-pin round socket, 3 m/6 m	YCC01-03CISLM3	YCC04-R12F6
Connection cable with open cable ends, 6 m	YCC02-RELAIS01	–
Connection cable from RS232 data interface to USB interface on the PC, 25-pin D-SUB connector/USB connector, 2 m	YCC01-USBM2	–

Software for indicators and complete scales Combics® CAIS(L)./CAS.../CAW...

Description	Order code
SartoConnect 4.0	YSC03
Minebea Intec OPC Server	6289OPC

Printer for indicators and complete scales Combics® CAIS(L)./CAS.../CAW...

Description	Order code
Needle high-speed matrix printer	YDP21
Strip/label printer, with thermal direct printing, 60 mm paper width	YDP05
Strip/label printer, with thermal direct printing, 108 mm paper width	YDP14IS-0CEUV
Strip/label printer, with thermal transfer printing, 108 mm paper width	YDP14S-0CEUVTH

Additional accessories for indicators and complete scales Combics® CAIS(L)/CAS.../CAW...

Description	Order code
Bar code reader with PS/2 connector – only for CAISL.../CAW.P...	YBR05PS2
Bar code reader (with 5-pin DIN connector)	YBR05FC
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 indicator	YAS07CI
Stainless-steel cable terminal box to connect up to 4 load cells in one platform or for external installation, PR6130/64S – only for CAW...P.../CAW...S...	940536130642
Relay box to connect scales to external controls, with four (5) relay outputs (250 V/3 A) and 1 optocoupler input (0–30 V)	YSB01
Digital input and output module to connect 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 Combics® 3 to external controls	IE11357
IP65 kit for cable connections (D-SUB 25), 3 covers – only for CAISL.../CAW.P...	YAS01CISL

Wall bracket for indicators and complete scales Combics® CAIS(L)/CAS.../CAW...

Description	Order code
Stainless-steel wall bracket (slanted installation surface)	YDH01CIS
Stainless-steel wall bracket, tilting indicator	YDH02CIS
Stainless-steel wall bracket (flat installation surface)	YDH04CIS

Floor-mounted column for indicators and complete scales Combics® CAIS(L)/CAS.../CAW...

Description	Order code
Stainless-steel floor-mounted column, height 1.1 m (also for use in Zones 1, 2, 21, 22)	YDH03CIS

Description of floor-mounted column accessories	Order code
Column supports made from stainless steel (4 supports)	YBP03CIS
Plate for attaching a printer for floor-mounted column or bench stand	YPP01CWS
Bar code reader holder, attach to: floor-mounted column, bench stand	YBH01CWS

Stainless-steel column for mounting attach the indicator to the platform for complete scales Combics®

Description of stainless-steel column for mounting the indicator to the platform for complete scales Combics® CAW...P.../CAW...S...	Order code
For platform dimensions 320×240 mm, column height 330 mm	YDH01CWS
For platform dimensions 400×300 mm and 500×400 mm, column height 500 mm	YDH02CWS
For platform dimensions 500×400 mm, column height 750 mm	YDH03CWS
Bolting plate for platform dimensions 400×300 mm and 500×400 mm (base-mounted display)	YDH12CWS

Description of painted column for mounting the indicator to the platform for complete scales Combics® CAS...	Order code
For platform dimensions 400×300 mm, column height 500 mm	YDH02CHE

Ramp for complete scales and platforms Combics®

Description of painted ramp for complete scales and platforms Combics® CAW.P.../CAAPP...*	Order code
For platform dimensions 800×600 mm (ramp dimensions: 1,200×600 mm)	YAR01CWP
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200×800 mm)	YAR06CWP
For platform dimensions 1,000×1,000 mm, 1,250×1,000 mm (ramp dimensions: 1,200×1,000 mm)	YAR02CWP
For platform dimensions 1,250×1,250 mm, 1,500×1,250 mm (ramp dimensions: 1,200×1,250 mm)	YAR03CWP
For platform dimensions 1,500×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR04CWP
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR05CWP

Description of stainless-steel ramp for complete scales and platforms Combics® CAW.S.../CAAPS...*	Order code
For platform dimensions 800×600 mm (ramp dimensions: 1,200×600 mm)	YAR01CWS
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200×800 mm)	YAR06CWS
For platform dimensions 1,000×1,000 mm, 1,250×1,000 mm (ramp dimensions: 1,200×1,000 mm)	YAR02CWS
For platform dimensions 1,250×1,250 mm, 1,500×1,250 mm (ramp dimensions: 1,200×1,250 mm)	YAR03CWS
For platform dimensions 1,500×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR04CWS

Description of painted ramp (tread plate) for complete scales and platforms Combics® CAW.P.../CAAPP...*	Order code
For platform dimensions 800×600 mm (ramp dimensions: 1,200×600 mm)	YAR01CWPT
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200×800 mm)	YAR06CWPT
For platform dimensions 1,000×1,000 mm, 1,250×1,000 mm (ramp dimensions: 1,200×1,000 mm)	YAR02CWPT
For platform dimensions 1,250×1,250 mm, 1,500×1,250 mm (ramp dimensions: 1,200×1,250 mm)	YAR03CWPT
For platform dimensions 1,500×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR04CWPT
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR05CWPT

Description of stainless-steel ramp (tread plate) for complete scales and platforms Combics® CAW.S.../CAAPS...*	Order code
For platform dimensions 800×600 mm (ramp dimensions: 1,200×600 mm)	YAR01CWST
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200×800 mm)	YAR06CWST
For platform dimensions 1,000×1,000 mm, 1,250×1,000 mm (ramp dimensions: 1,200×1,000 mm)	YAR02CWST
For platform dimensions 1,250×1,250 mm, 1,500×1,250 mm (ramp dimensions: 1,200×1,250 mm)	YAR03CWST
For platform dimensions 1,500×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR04CWST
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR05CWST

Description of stainless-steel ramp AISI316, for complete scales and platforms Combics® CAW.S.../CAAPS...*	Order code
For platform dimensions 800×600 mm (ramp dimensions: 1,200×600 mm)	YAR01CWS4
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200×800 mm)	YAR06CWS4
For platform dimensions 1,000×1,000 mm, 1,250×1,000 mm (ramp dimensions: 1,200×1,000 mm)	YAR02CWS4
For platform dimensions 1,250×1,250 mm, 1,500×1,250 mm (ramp dimensions: 1,200×1,250 mm)	YAR03CWS4
For platform dimensions 1,500×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR04CWS4
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200×1,500 mm)	YAR05CWS4

* suitable for use in Zones 2 and 22

Frame for pit installation for complete scales Combics®

Description of frame for pit installation for complete scales Combics® CAS...	Order code
Painted, for platform dimensions 800×600 mm	YEG04IP
Stainless steel, for platform dimensions 800×600 mm	YEG01IP
Installation kit for frame for pit installation	YAS04IS

Description of painted frame for pit installation for complete scales and platforms Combics® CAW.P../CAAPP...*	Order code
For platform dimensions 800×600 mm	YEG01CWP
For platform dimensions 800×800 mm	YEG08CWP
For platform dimensions 1,000×800 mm	YEG07CWP
For platform dimensions 1,000×1,000 mm	YEG02CWP
For platform dimensions 1,250×1,000 mm	YEG03CWP
For platform dimensions 1,250×1,250 mm	YEG09CWP
For platform dimensions 1,500×1,250 mm	YEG04CWP
For platform dimensions 1,500×1,500 mm	YEG05CWP
For platform dimensions 2,000×1,500 mm	YEG06CWP

Description of stainless-steel frame for pit installation for complete scales and platforms Combics® CAW.S../CAAPS...*	Order code
For platform dimensions 800×600 mm	YEG01CWS
For platform dimensions 800×800 mm	YEG08CWS
For platform dimensions 1,000×800 mm	YEG07CWS
For platform dimensions 1,000×1,000 mm	YEG02CWS
For platform dimensions 1,250×1,000 mm	YEG03CWS
For platform dimensions 1,250×1,250 mm	YEG09CWS
For platform dimensions 1,500×1,250 mm	YEG04CWS
For platform dimensions 1,500×1,500 mm	YEG05CWS
For platform dimensions 2,000×1,500 mm	YEG06CWS

* suitable for use in Zones 2 and 22

Roller conveyor for complete scales Combics® CAS...

Description of roller conveyor for complete scales Combics® CAS...	Order code
Painted, for platform dimensions 400×300 mm	YRC01EDA
Stainless steel, for platform dimensions 400×300 mm	YRC01EDS
Painted, for platform dimensions 800×600 mm	YRC01IGP
Stainless steel, for platform dimensions 800×600 mm	YRC01IGS

Description of painted roller conveyor for complete scales and platforms Combics® CAW.P../CAAPP...*	Order code
For platform dimensions 400×300 mm	YRC01EDA
For platform dimensions 500×400 mm	YRC01FEA
For platform dimensions 650×500 mm	YRC01GFP
For platform dimensions 800×600 mm	YRC01IGP

Description of stainless-steel roller conveyor for complete scales and platforms Combics® CAW.S../CAAPS...*	Order code
For platform dimensions 400×300 mm	YRC01EDS
For platform dimensions 500×400 mm	YRC01FES
For platform dimensions 650×500 mm	YRC01GFS
For platform dimensions 800×600 mm	YRC01IGS

Ordering system legend for indicators CAIS...

Product range	Material/ design	IP protection rating	Applications
CAI	S	L	1
			2
			3

Ordering system legend for platforms CAAP...

Product range	Material/ design	Number of load cells		Weighing range (kg)	Platform dimensions in mm/ order code		Display resolution
CAAP	P	1	–	3	DC	–	I
	S	4		6	ED		L
				.	.		S
				.	.		BCE
				.	.		MCE
				1,500	RR		NCE
				3,000	WR		RCE
							UCE

Resolutions	
-L	≥ 15,000 d, increments
-I	≥ 30,000 d, increments
-S	≥ 60,000 d, increments
-H	≥ 100,000 d increments
-BCE	3,000 e, verifiable increments

Resolutions	
-NCE	2 × 3,000 e, verifiable increments, multi-range, fixed fine control range
-MCE	2 × 3,000 e, verifiable increments, multi-interval, adjustable fine control range
-UCE	3 × 3,000 e, verifiable increments, multi-range, fixed fine control range
-RCE	6,000 e, verifiable increments
-SCE	≥ 60,000 d, class II, e = 10 d
-HCE	≥ 100,000 d, class II, e = 10 d

Base frame material
E = epoxy resin, suitable for industrial use
G = galvanised steel
S = stainless steel
P = painted

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



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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