

Bench and floor scale Midrics®

The robust complete scale for reliable quality control



OPC UA
upgradable



German Quality

 The bench and floor scale Midrics® has proven itself in a variety of industries such as the food, pharmaceutical, chemical, electronic and metal industries. Boasting a long product lifetime, it is robust and easy to clean. Depending on the application, the weight indicator can be set up independently from the location of the platform and can even be mounted on a stand.

The right solution for all of these applications:



Weighing



Counting



Filling and
dosing



Formulation



Fill quantity
control



Classification

Technical specifications

General technical data for the bench and floor scale Midrics[®], weight indicators and platforms

Parameters	Description	
Possible combinations	– 2 weight indicators – 10 load ranges from 3 kg to 3 t – 13 platform dimensions	
Material	MIS... Weight indicator: Stainless steel MW.P.../MAPP... Weight indicator: Stainless steel Weighing platform: – Galvanised steel with powder coating resistant against impact, scratches and abrasion, colour: NCSS3502-B (RAL7040) Load plate: – Stainless steel AISI304 (up to 800 × 600 mm) – Powder-coated steel (from 800 × 800 mm)	MW.S.../MAPS... Weight indicator: Stainless steel Weighing platform: – Stainless steel AISI304 Load plate: – Stainless steel AISI304
Weight indicator	Provided, optionally with bolting plate or column to mount on the platform	
Miscellaneous	– 4 x height-adjustable levelling feet – Levelling equipment – Overload protection	
Resolution (non-verifiable)	Up to 15,000 d, depending on model	
Resolution (verifiable, accuracy class III)	Up to 2 × 3,000 e (MR), depending on model	
Weighing system	One or four load cells C3	
IP protection rating	MIS... – Weight indicator: IP65 MAPP.../MW.P... – Weight indicator: IP65 – Weighing platform: MAPP... IP65,67 – Weighing platform (Ex): MAPP1 IP67 MAPP4 IP65 (load cell IP67)	MAPS.../MW.S... – Weight indicator: IP65 – Weighing platform: MAPS... IP69K – Weighing platform (Ex): MAPS1 IP67 MAPS4 IP65 (load cell IP67)
Data interfaces (2 slots)	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) – Ethernet TCP/IP and Modbus TCP – EthernetIP – ProfiNet	
Internal Alibi memory	Optional: 130,000 data sets	
Comprehensive accessories	– Ramps – Foundation frames – Roller conveyors – Benches	– Cables – Printers – Wall brackets – Software – Columns
Electrical supply	100–240 V_{AC} (–15%/+10%), 50–60 Hz, max. 17 W/23 VA Optional: – 22.8–26.7 V_{DC}, max. 12 VA – 22.8–26.7 V_{AC}, 50–60 Hz, max. 12 VA – Via internal battery pack	
Power cable length	3 m	
Operating temperature range accuracy class III	–10 ... +40°C	
Operational temperature range not verified	–10 ... +40°C	
Storage temperature range	–10 ... +40°C	

Parameters	Description
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)
Net weight/gross weight	MW/MAP...DC... (320 × 240 mm) 5 / 6.2 kg MW/MAP...ED... (400 × 300 mm) 8 / 9.9 kg MW/MAP...FE... (500 × 400 mm) 14.7 / 16.7 kg MW/MAP...GF... (650 × 500 mm) 28 / 42.1 kg MW/MAP...IG... (800 × 600 mm) 38 / 52.1 kg MW/MAP...IL... (800 × 800 mm) 51 / 66 kg MW/MAP...LI... (1,000 × 800 mm) 60 / 75 kg MW/MAP...LL... (1,000 × 1,000 mm) 72 / 96 kg MW/MAP...NL... (1,250 × 1,000 mm) 88 / 112 kg MW/MAP...NN... (1,250 × 1,250 mm) 120 / 146 kg MW/MAP...RN... (1,500 × 1,250 mm) 137 / 174 kg MW/MAP...RR... (1,500 × 1,500 mm) 160 / 198 kg MW/MAP...WR... (2,000 × 1,500 mm) 217 / 261 kg

General technical data for weight indicators Midrics®

Parameters	Description
Load cell connection	Supply voltage: 8.4 V Sensor technology available: 4 or 6 wire technology
Bridge impedance	83 ohm up to 2,000 ohm
Measuring signal hub	0 mV to 29.4 mV
Measurement signal / calibration value	min. 0.672 µV/e
Sensitivity	Max. 4 M divisions (internal)
Net weight	(Approx.) 2.3 kg

Weight indicators for bench and floor scale Midrics®



Weight indicator MIS1 Midrics®



Weight indicator MIS2 Midrics®

User interface	Level 1	Level 2
Keyboard	5 keys	23 keys
Display	14 segments 20 mm weight readout	14 segments 20 mm weight readout plus application symbols

Applications	Level 1	Level 2
Weighing	•	•
Data transfer to printer/PC	•	•
Counting		•
Percentage weighing		•
Averaging		•
Checking/classification		•
Totalising		•
Net total		•
Identifier (4 × 40 characters)		•
Date/Time (optional)	•	•
Internal Alibi memory (optional)	•	•

Weighing platforms MW.../MAP...



Example diagrams of available weighing platforms

Order code	Load range in kg	Readability in g			Material E: Stainless steel; V: Galvanised; P: Powder-coated				Cable length Weighing platform approx. in m
		non-verifiable	verifiable	- NCE	MW.P.../MAPP...		MW.S.../MAPS...		
		- L	- LCE		Load plate	Base	Load plate	Base	
1-3DC	3	0.2	1	0.5/1	E	V	E	E	2.5
1-6DC	6	0.5	2	1/2	E	V	E	E	2.5
1-15DC	15	1	5	2/5	E	V	E	E	2.5
1-30ED	30	2	10	5/10	E	V	E	E	2.5
1-30FE	30	2	10	5/10	E	V	E	E	2.5
1-60ED	60	5	20	10/20	E	V	E	E	2.5
1-60FE	60	5	20	10/20	E	V	E	E	2.5
1-60GF	60	5	20	10/20	E	P	E	E	2.5
1-60IG	60	5	20	10/20	E	P	E	E	2.5
1-150FE	150	10	50	20/50	E	V	E	E	2.5
1-150GF	150	10	50	20/50	E	P	E	E	2.5
1-150IG	150	10	50	20/50	E	P	E	E	2.5
4-150II	150	10	50	20/50	P	P	E	E	6
4-150LL	150	10	50	20/50	P	P	E	E	6
4-150NN	150	10	50	–	P	P	E	E	6
1-300GF	300	20	100	50/100	E	P	E	E	2.5
1-300IG	300	20	100	50/100	E	P	E	E	2.5
4-300II	300	20	100	50/100	P	P	E	E	6
4-300LL	300	20	100	50/100	P	P	E	E	6
4-300NN	300	20	100	50/100	P	P	E	E	6
4-600II	600	50	200	100/200	P	P	E	E	6
4-600LI	600	50	200	100/200	P	P	E	E	6
4-600LL	600	50	200	100/200	P	P	E	E	6
4-600NL	600	50	200	100/200	P	P	E	E	6
4-600NN	600	50	200	100/200	P	P	E	E	6
4-600RN	600	50	200	100/200	P	P	E	E	6
4-600RR	600	50	200	100/200	P	P	E	E	6
4-600WR	600	50	200	100/200	P	P	E	E	6
4-1500II	1,500	100	500	200/500	P	P	E	E	6
4-1500LI	1,500	100	500	200/500	P	P	E	E	6
4-1500LL	1,500	100	500	200/500	P	P	E	E	6
4-1500NL	1,500	100	500	200/500	P	P	E	E	6
4-1500NN	1,500	100	500	200/500	P	P	E	E	6
4-1500RN	1,500	100	500	200/500	P	P	E	E	6

Order code	Load range in kg	Readability in g			Material E: Stainless steel; V: Galvanised; P: Powder-coated MW.P.../MAPP... MW.S.../MAPS...				Cable length Weighing platform approx. in m
		non-verifiable	verifiable						
		- L	- LCE	- NCE	Load plate	Base	Load plate	Base	
4-1500RR	1,500	100	500	200/500	P	P	E	E	6
4-1500WR	1,500	100	500	200/500	P	P	E	E	6
4-3000II	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000LI	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000LL	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000NL	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000NN	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000RN	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000RR	3,000	200	1,000	500/1,000	P	P	E	E	6
4-3000WR	3,000	200	1,000	500/1,000	P	P	E	E	6

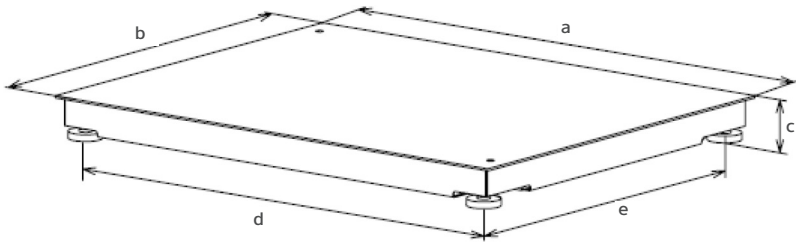
Maximum additive preload and maximum load-bearing capacity

Painted and stainless steel version					
Weighing range	Dimensions	Maximum additive preload	Centre load-bearing capacity	Side load-bearing capacity	Corner load-bearing capacity
3 kg	320×240 mm	–	25 kg	20 kg	15 kg
6 kg	320×240 mm	0.6 kg	25 kg	20 kg	15 kg
15 kg	320×240 mm	1.5 kg	25 kg	20 kg	15 kg
30 kg	400×300 mm	3 kg	100 kg	60 kg	40 kg
30 kg	500×400 mm	3 kg	200 kg	150 kg	100 kg
60 kg	400×300 mm	6 kg	100 kg	60 kg	40 kg
60 kg	500×400 mm	6 kg	200 kg	150 kg	100 kg
60 kg	650×500 mm	6 kg	200 kg	150 kg	100 kg
60 kg	800×600 mm	6 kg	200 kg	150 kg	100 kg
150 kg	500×400 mm	15 kg	200 kg	150 kg	100 kg
150 kg	650×500 mm	15 kg	200 kg	150 kg	100 kg
150 kg	800×600 mm	15 kg	200 kg	150 kg	100 kg
150 kg	from 800×800 mm	15 kg	3,500 kg	3,000 kg	1,500 kg
300 kg	650×500 mm	30 kg	400 kg	300 kg	200 kg
300 kg	800×600 mm	30 kg	400 kg	300 kg	200 kg
300 kg	from 800×800 mm	30 kg	3,500 kg	3,000 kg	1,500 kg
600 kg	from 800×800 mm	60 kg	3,500 kg	3,000 kg	1,500 kg
1,500 kg	from 800×800 mm	150 kg	3,500 kg	3,000 kg	1,500 kg
3,000 kg	from 800×800 mm	300 kg	3,500 kg	3,000 kg	1,500 kg

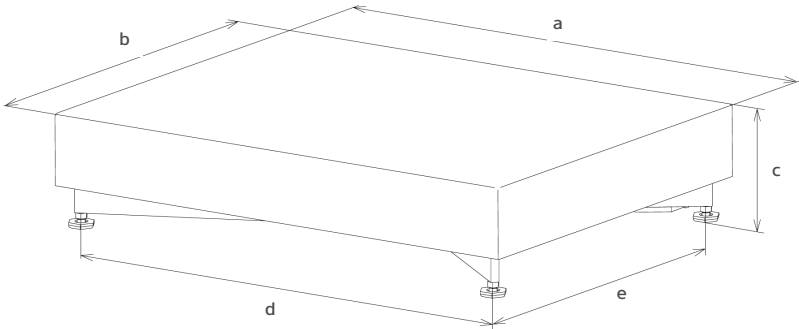
* The specified preload only applies to items which do not require verification.

Technical diagrams

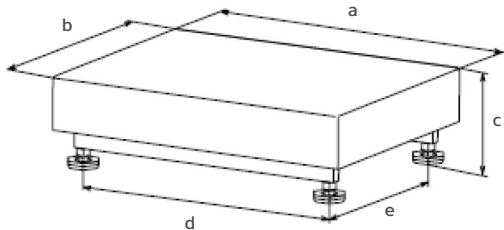
Weighing platforms MW.../MAP...



Type 3: ..II, ..LI, ..LL, ..NL, ..NN, ..RN, ..RR, ..WR

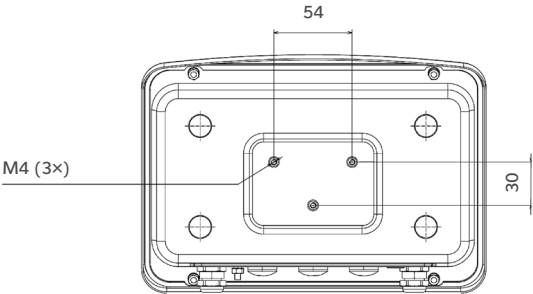
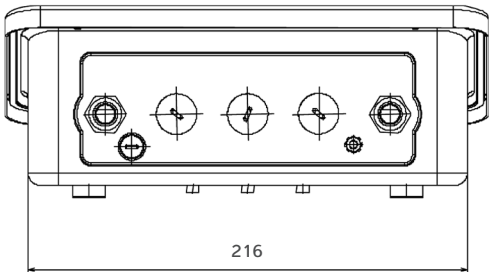
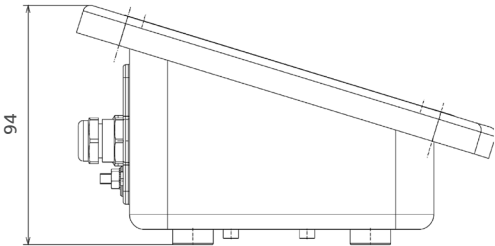
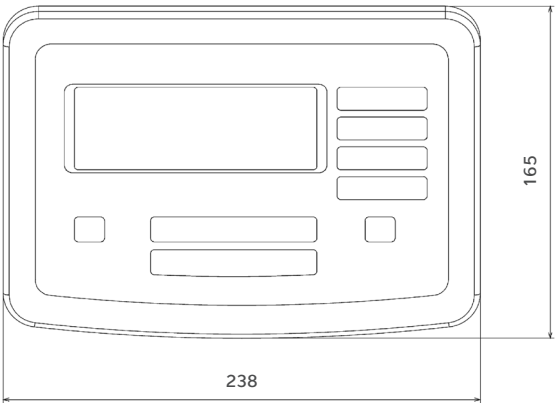


Type 2: ..GF, ..IG



Type 1: ..DC, ..ED, ..FE

Type	a	b	c	d	e
...DC-	320	240	85...100	275	195
...ED-	400	300	96...111	356	256
...FE-	500	400	110...125	455	355
...GF-	650	500	142...162	603	453
...IG-	800	600	142...162	752	552
...II-	800	800	100...105	700	700
...LI-	1,000	800	100...105	900	700
...LL-	1,000	1,000	100...105	900	900
...NL-	1,250	1,000	100...105	1,150	900
...NN-	1,250	1,250	100...105	1,150	1,150
...RN-	1,500	1,250	100...105	1,400	1,150
...RR-	1,500	1,500	100...105	1,400	1,400
...WR-	2,000	1,500	100...105	1,900	1,400



Options

Interfaces for bench and floor scale and weight indicators Midrics®

COM 1	Order reference as option	Order reference as accessory
RS232	A11	YDO01M-232
RS232, real-time clock	A31	YDO01M-232CLK

UniCOM	Order reference as option	Order reference as accessory
RS232, control outputs	A1	YDO01M-232CO
RS422	A2	YDO01M-485
RS485	A3	YDO01M-485
Digital 5 inputs/5 outputs	A5	YDO01M-IO
Analogue output	A9	YDA01M-20MA
Ethernet TCP/IP, Modbus TCP	B9	YDO01M-EN
EthernetIP	B10	YDO02C-ETHIP
ProfiNet	B11	YDO02C-PN

Equipment for bench and floor scale and weight indicators Midrics®

Description	Order reference as option	Order reference as accessory
24 volt power supply	L8	YAS02MI
Internal battery pack	L9	
Internal Alibi memory	E5	
Separable connection weight indicator–weighing platform	X1	YAS99I
Protection class ATEX zone 2 and zone 22	Y2	
Level for non-verifiable versions	L11	
Positioning bracket, also suitable for simple wall installation	G1	
Verified at the factory for the installation location (only for EWR)	F1	

Cables for bench and floor scale and weight indicators Midrics®

Description	UniCOM	COM1	Order reference as accessory
Connection cable for PC, 9-pin D-SUB socket, 6 m	M34	M4	YCC02-D09F6
Connection cable for printer YDP21, 9-pin D-SUB socket, 6 m		M9	YCC02-D09F6
Connection cable for printer YDP05, YDP14IS, 9-pin D-SUB connector, 6 m	M33	M3	YCC02-D09M6
Connection cable for various accessories, 12-pin round socket, 6 m	M36		YCC02-R12F6
Connection cable for various accessories, 25-pin D-SUB socket, 6 m	M31		YCC02-D25F6
Ethernet connection cable, cable gland on RJ45 connector, 7 m	M38		YCC03-RJ45M7
1x EthernetIP / ProfiNet connection cable, cable gland on RJ45-Stecker, 6 m	M39		YCC02-RJ45M6
2x EthernetIP / ProfiNet connection cable, cable gland on RJ45-Stecker, 6 m	M40		YCC02-RJ45M6*

* two cables must be ordered

Accessories

Printers for bench and floor scale and weight indicators Midrics®

Description	Order reference
Label printer, thermal direct USB, RS232, up to 104 mm paper width	ZD421D
Label printer, thermal transfer USB, RS232, up to 104 mm paper width	ZD421T
Label printer, thermal direct USB, 58 mm paper width	ZD411D-USB
Label printer, thermal direct USB, Ethernet, 58 mm paper width	ZD411D-USB-ETH
Label printer, thermal direct USB, RS232, 58 mm paper width	ZD411D-USB-232
Label printer, thermal direct USB, WIFI, Bluetooth	ZD411D-USB-WIFI
Label printer, thermal transfer USB	ZD411T-USB
Label printer, thermal transfer USB, Ethernet	ZD411T-USB-ETH
Label printer, thermal transfer USB, WIFI, Bluetooth	ZD411T-USB-WIFI
Label printer, thermal transfer USB, RS232, 58 mm paper width	ZD411T-USB-232

Software for bench and floor scale and weight indicators Midrics®

Description	Order reference
OPC-UA Server for connection of 1 to 5 scales	62OPC-UA-01
OPC-UA Server for connection of 6 to 10 scales	62OPC-UA-06
OPC-UA Server for connection of more than 11 scales	62OPC-UA-11

Equipment for bench and floor scale and weight indicators Midrics®

Description	Order reference
Dust covers for display unit (2 items)	YDC01SW
Cable gland (PG) for cables with diameter 4.5 to 9 mm, M16 × 1.5	YAS04CIS
Kit for weight indicator control panel installation	YAS03MI

Wall bracket for bench and floor scale and weight indicators Midrics®

Description	Order reference
Stainless-steel wall bracket (slanted installation surface)	YDH01CIS
Stainless-steel wall bracket, tiltable weight indicator	YDH02CIS
Stainless-steel wall bracket (flat installation surface)	YDH04CIS

Floor-mounted column for bench and floor scale and weight indicators Midrics®

Description	Order reference
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 reference
Column supports made from stainless steel (4 supports)	YBP03CIS
Plate for attaching a printer, for floor-mounted columns, bench stands	YPP01CWS
Bar code reader holder, attach to: floor-mounted columns, bench stands	YBH01CWS

Stainless-steel column for mounting the weight indicator to the platform for the bench and floor scale Midrics®

Description	Order reference
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

Ramp for bench and floor scale and weight indicators Midrics®

Ramp description, painted	Order reference
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200 × 800 mm)	YAR01MAPP
For platform dimensions 1,000×800 mm and 1,000×1,000 mm, 1,250 × 1,000 mm (ramp dimensions: 1,200 × 1,000 mm)	YAR02MAPP
For platform dimensions 1,250×1,000 mm and 1,250×1,250 mm, 1,500 × 1,250 mm (ramp dimensions: 1,200 × 1,250 mm)	YAR03MAPP
For platform dimensions 1,500×1,250 mm and 1,500×1,500 mm, 2,000 × 1,500 mm (ramp dimensions: 1,200 ×1,500)	YAR04MAPP
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200 × 2,000 mm)	YAR05MAPP

Ramp description, stainless steel	Order reference
For platform dimensions 800×800 mm, 1,000×800 mm (ramp dimensions: 1,200 × 800 mm)	YAR01MAPS
For platform dimensions 1,000×800 mm and 1,000×1,000 mm, 1,250 × 1,000 mm (ramp dimensions: 1,200 × 1,000 mm)	YAR02MAPS
For platform dimensions 1,250×1,000 mm and 1,250×1,250 mm, 1,500 × 1,250 mm (ramp dimensions: 1,200 × 1,250 mm)	YAR03MAPS
For platform dimensions 1,500×1,250 mm and 1,500×1,500 mm, 2,000 × 1,500 mm (ramp dimensions: 1,200 ×1,500)	YAR04MAPS
For platform dimensions 2,000×1,500 mm (ramp dimensions: 1,200 × 2,000 mm)	YAR05MAPS

Foundation frames for bench and floor scale and weight indicators Midrics®

Description foundation frames, painted	Order reference
For platform dimensions 800×800 mm	YEG01MAPP
For platform dimensions 1,000×800 mm	YEG02MAPP
For platform dimensions 1,000×1,000 mm	YEG03MAPP
For platform dimensions 1,250×1,000 mm	YEG04MAPP
For platform dimensions 1,250×1,250 mm	YEG05MAPP
For platform dimensions 1,500×1,250 mm	YEG06MAPP
For platform dimensions 1,500×1,500 mm	YEG07MAPP
For platform dimensions 2,000×1,500 mm	YEG08MAPP

Description foundation frames, stainless steel	Order reference
For platform dimensions 800×800 mm	YEG01MAPS
For platform dimensions 1,000×800 mm	YEG02MAPS
For platform dimensions 1,000×1,000 mm	YEG03MAPS
For platform dimensions 1,250×1,000 mm	YEG04MAPS
For platform dimensions 1,250×1,250 mm	YEG05MAPS
For platform dimensions 1,500×1,250 mm	YEG06MAPS
For platform dimensions 1,500×1,500 mm	YEG07MAPS
For platform dimensions 2,000×1,500 mm	YEG08MAPS
Floor fixing set (2 × stainless-steel plates, 4 × stainless-steel floor anchors) for all weighing platforms with 4 load cells	YFP01MWS

Ordering information

Ordering system legend for bench and floor scale Midrics®								
Product line	Applications	Material/ Version	Number of load cells		Weighing range (kg)	Platform dimensions in mm/ order code		Display resolution
MW	1	P	1	–	3	DC	–	L
	2	S	4	–	6	ED	–	LCE
					–	–	–	NCE
					–	–		
					1,500	RR		
					3,000	WR		

Example order code MW1P1-60FE-L:

Resolution		Base frame material	
-L single range	15,000 d, divisions	P	Painted
-LCE	3000 e, verifiable divisions	S	Stainless steel
-NCE	2×3,000 e, verifiable divisions		

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.
Rev. 09/2025

Minebea Intec Bovenden GmbH & Co. KG
Leinetal 2
37120 Bovenden, Germany
Phone +49.551.309.83.0
sales.industry@minebea-intec.com
www.minebea-intec.com