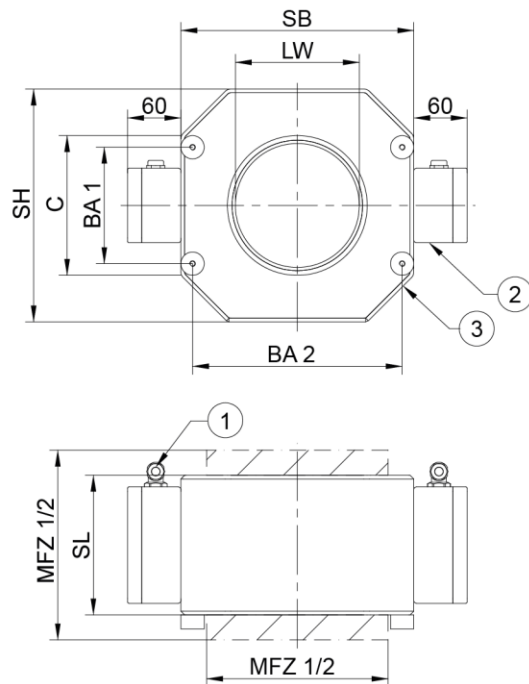
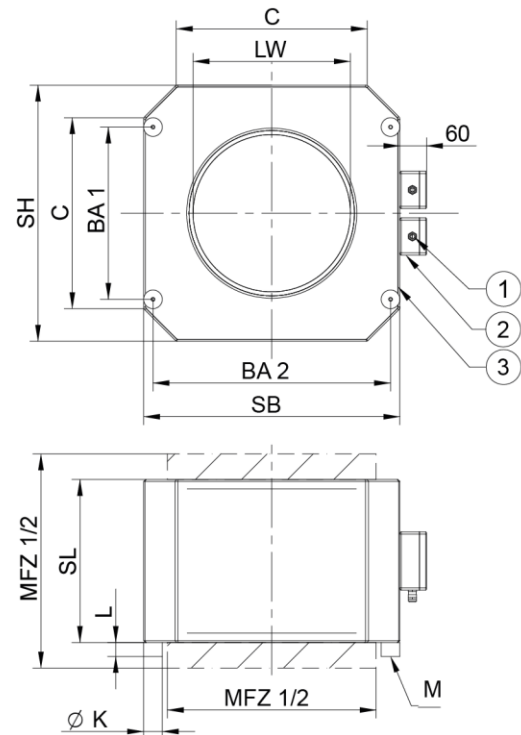


Dimensions – Vertical version



DN 55 – DN 150



DN 170 – DN 430

1. Connecting line
2. Terminal box
3. Detector

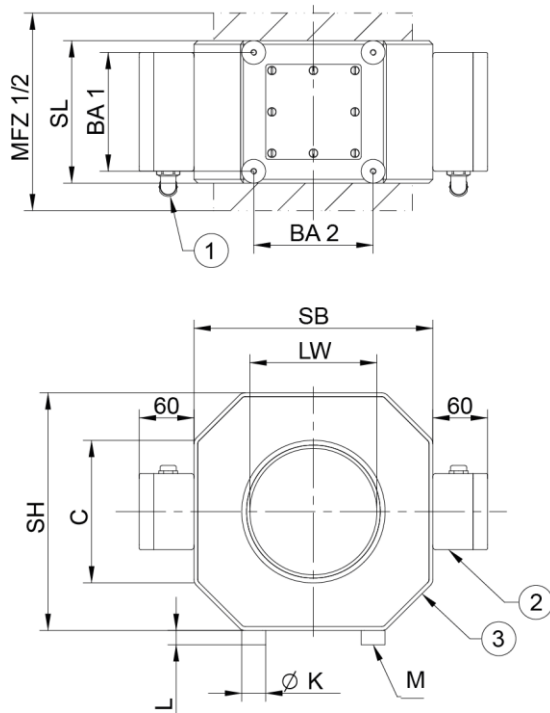
LW	SH = SB	C	SL	BA 1	BA 2	L	ØK	M	MFZ 1**	MFZ 2**	Weight, aluminium [kg]*
55	150	90	125	125	175	15	25	4 x M6 – 7 deep	180	235	5
85	200	140	150	125	225	15	25	4 x M6 – 7 deep	235	320	9
100	200	140	150	125	225	15	25	4 x M6 – 7 deep	250	350	8
115	250	150	150	120	275	15	25	4 x M6 – 7 deep	260	370	11
130	250	150	150	120	275	15	25	4 x M6 – 7 deep	280	410	11
150	250	150	200	120	275	15	25	4 x M6 – 7 deep	350	500	13
170	300	200	200	175	325	15	25	4 x M6 – 7 deep	370	540	20
210	350	210	200	170	390	30	40	4 x M6 – 7 deep	410	620	23
235	400	260	250	220	440	30	40	4 x M8 – 7 deep	485	720	37
265	450	310	250	270	490	30	40	4 x M8 – 7 deep	515	780	46
300	500	360	300	320	540	30	40	4 x M8 – 7 deep	600	900	67
335	550	410	350	370	590	30	40	4 x M8 – 7 deep	685	1020	101
380	600	460	400	420	640	30	40	4 x M8 – 7 deep	780	1160	120
430	650	500	450	460	690	30	40	4 x M8 – 7 deep	880	1310	150

All dimensions in [mm]

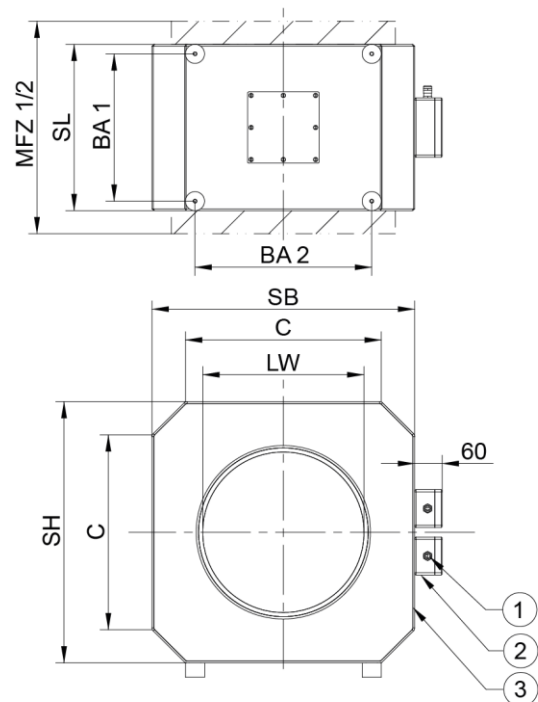
* Weight without packaging (specified weight refers to aluminium version including standard equipment, the weight can vary depending on the material version)

** MFZ 1: Metal-free zone for non-moving metals = SL + LW
MFZ 2: Metal-free zone for moving metals = SL + 2xLW

Dimensions – Horizontal version



DN 55 – DN 150



DN 170 – DN 430

1. Connecting line
2. Terminal box
3. Detector

LW	SH = SB	C	SL	BA 1	BA 2	L	ØK	M	MFZ 1**	MFZ 2**	Weight, aluminium [kg]*
55	150	90	125	100	65	15	25	4 x M6 – 7 deep	180	235	5
85	200	140	150	125	115	15	25	4 x M6 – 7 deep	235	320	9
100	200	140	150	125	115	15	25	4 x M6 – 7 deep	250	350	8
115	250	150	150	125	125	15	25	4 x M6 – 7 deep	260	370	11
130	250	150	150	125	125	15	25	4 x M6 – 7 deep	280	410	11
150	250	150	200	175	125	15	25	4 x M6 – 7 deep	350	500	13
170	300	200	200	175	175	15	25	4 x M6 – 7 deep	370	540	20
210	350	210	200	160	170	30	40	4 x M6 – 7 deep	410	620	23
235	400	260	250	210	220	30	40	4 x M8 – 7 deep	485	720	37
265	450	310	250	210	270	30	40	4 x M8 – 7 deep	515	780	46
300	500	360	300	260	320	30	40	4 x M8 – 7 deep	600	900	67
335	550	410	350	310	370	30	40	4 x M8 – 7 deep	685	1020	101
380	600	460	400	360	420	30	40	4 x M8 – 7 deep	780	1160	120
430	650	500	450	410	460	30	40	4 x M8 – 7 deep	880	1310	150

All dimensions in [mm]

* Weight without packaging (specified weight refers to aluminium version including standard equipment, the weight can vary depending on the material version)

** MFZ 1: Metal-free zone for non-moving metals = SL + LW
MFZ 2: Metal-free zone for moving metals = SL + 2xLW*

Product description

The **METRON CR** is a powerful free-fall metal detector for bulk materials. It is used for **quality control, process monitoring and machine protection**. Integration into the production line takes place via a **sensing tube provided by the customer**, which enables connection to the system. The detector reliably identifies all types of metal – whether loose or as inclusions – and thus ensures high process reliability and product quality.

Areas of application

The METRON CR is designed for applications in the **food** and **industrial** sectors.

Food

Suitable for applications in the food industry.

Industrial

For applications in the plastics, chemical, pharmaceutical and recycling industries, as well as in other industrial sectors with comparable products and requirements.

Hygienic requirement

The sensing tube must be provided by the customer. The customer must ensure that the sensing tube meets the technical production and hygiene requirements.

Bulk material classification

Product shape

Powder, fine-grained bulk materials, granulate, flakes, etc.

Grain size max. in mm

Depending on the nominal width of the sensing tube

Properties of the bulk material

Dry, moist, possible product effect
(Intrinsic conductivity of the product) can be compensated for

Flowability

Good, medium, bad

Type of material flow

- Free-fall applications - Vertical installation
- Pneumatic conveying lines - Vertical and horizontal installation
- Pump lines - Vertical and horizontal installation

Ambient conditions

Installation type

Vertical and horizontal installation

Product temperature

-10°C to +80°C

Ambient temperature

-10°C to +50°C -95% rf, non-condensing

Storage / transport conditions

-10°C to +60°C -95% rf, non-condensing

Relative humidity

0% to 95% (without condensation)

Equipment & specifications

Electronics version	AMD 05
Operator interface	Graphic display with membrane keypad, keypad
Operating unit - Assembly type	separated (min. 2m)
Detector coil	Aluminium (non-food) Optional: Stainless steel 1.4301 (AISI 304), sandblasted
Electronics housing	Painted steel (RAL 3027)
Protection class of coil housing	IP 66
Parts in contact with the product	The customer must ensure that the sensing tube meets the production criteria.
Device connection	The device connections must be made by the customer.

Detection accuracy

NWØ	FE Ø	Non-FE Ø	1.4031 (AISI 304) Ø
55	0,40	0,40	0,60
85	0,50	0,50	0,80
100	0,60	0,60	1,00
115	0,70	0,64	1,00
130	0,70	0,64	1,00
150	0,70	0,80	1,00
170	0,80	0,80	1,20
210	1,00	1,00	1,50
235	1,00	1,20	1,50
265	1,20	1,50	1,50
300	1,20	1,50	1,75
335	1,50	1,50	1,75
380	1,75	1,75	2,00
430	1,75	2,00	2,50

All dimensions in [mm]

The specified sensitivities (ball Ø in mm) are based on factory settings and were determined under simulated production conditions in the centre of the passage opening. They refer to typical products according to the bulk materials classification and serve as a guide. The actual detection performance depends on the selected frequency as well as on product properties such as shape, conductivity and flow properties. An individual assessment is required for deviating product or process conditions.

Standard scope of delivery

Metal detector and evaluation electronics

Operating instructions with spare parts list and electronic connection diagram

EU Declaration of Conformity:

- 2014/35/EU (Low Voltage Directive)
- 2014/30/EU (EMC Directive)
- 2011/65/EU (RoHS Directive)
- Delegated directive (EU) 2015/863 (extension of the RoHS Directive)

Versions

- ATEX (dust): Zone 21 | 22 (outdoor)

Conformity

Optionally available:

- Regulation (EC) No. 1935/2004 + FDA (Food and Drug Administration)
- NRTL certification (61010-1)
- IEC certification (61010-1)
- Test piece certificate

Options

- Sensing tube made of plastic: Funnels, flanges - *customised*
- Detector mounting frame
- Stainless steel 1.4301 (AISI 304), sandblasted

Accessories

- Test piece (FE Ø, non-FE Ø, V2A Ø)
- mesuINSERT (test piece insertion station)
- Signal combination for error status warning
- mesuEXPORT (automatic protocol export)
- mesuREMOTE (remote maintenance kit)
- mesuLINK (networking software)

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Note:

If you require further product information that goes beyond the content of this technical data sheet and in particular concerns a specific use and the application of this product, please contact us.

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