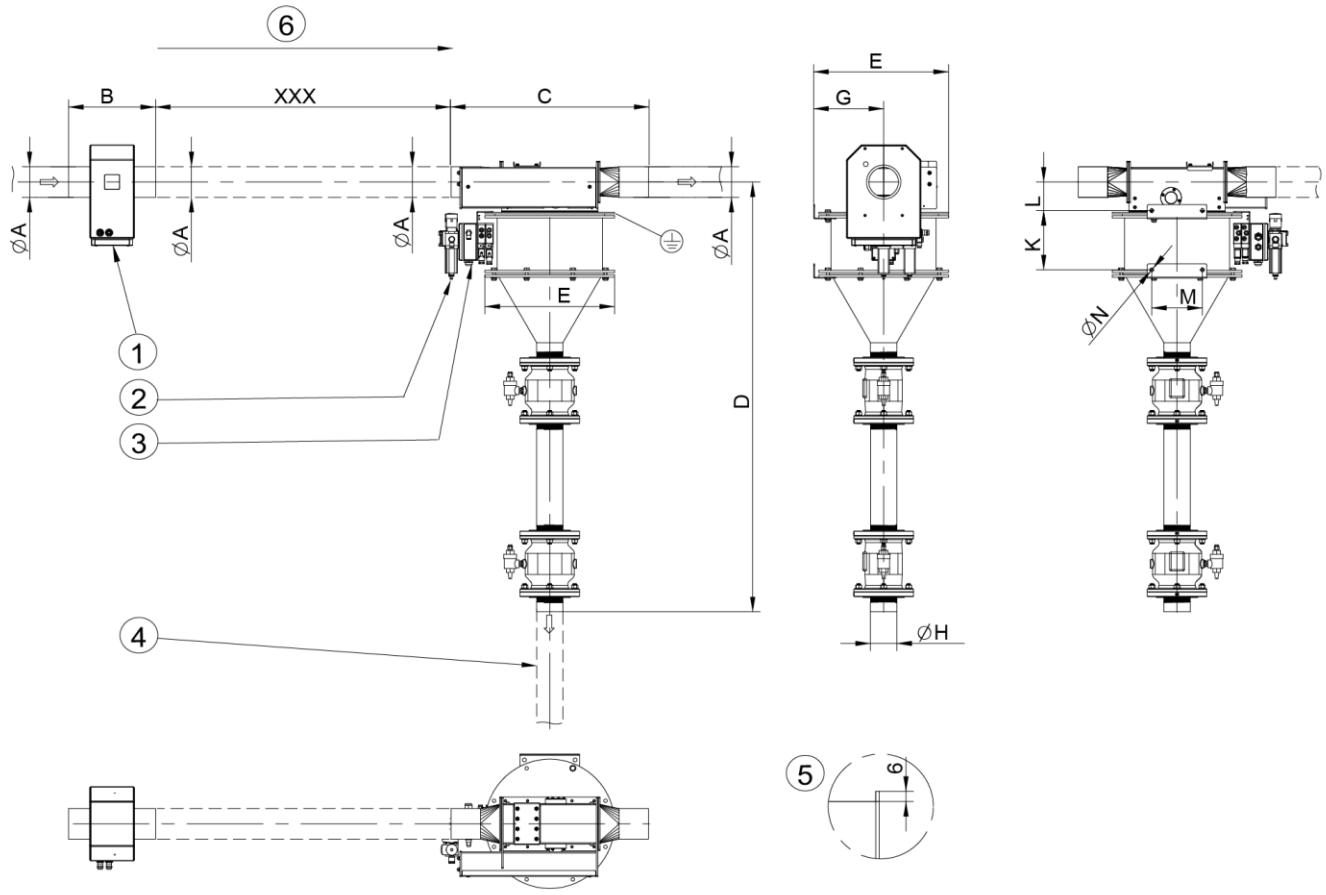
Dimensions



XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (usemultiplier 0.07 [s] from pipe diameter size 3)

1 Detector
2 Pneumatics
3 Monitoring
4 Rejects outlet
5 Jacob system (with ø A: 100, 120, 150 and 200 mm)
6 Conveying direction

	ø A	B	C	D	E	G	H	K	L	M	øN	Weight [kg]*
Size 1	38, 45, 50, 55, 60	398	340	1286	350	175	60	187	90	160	11.5	70
Size 2	65, 70, 75, 80	480	430	1410	350	175	89	187	98	160	11.5	75
Size 3	85/100**/120**	660/296/310	669	1447	453	235	89	200	96	170	13	ø85: 80 ø100: 100 ø120: 140
Size 4	150**/200**	380/450	1055/915	3040	690	345	200**	250	340	350	13	ø150: 260 ø200: 300

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)

** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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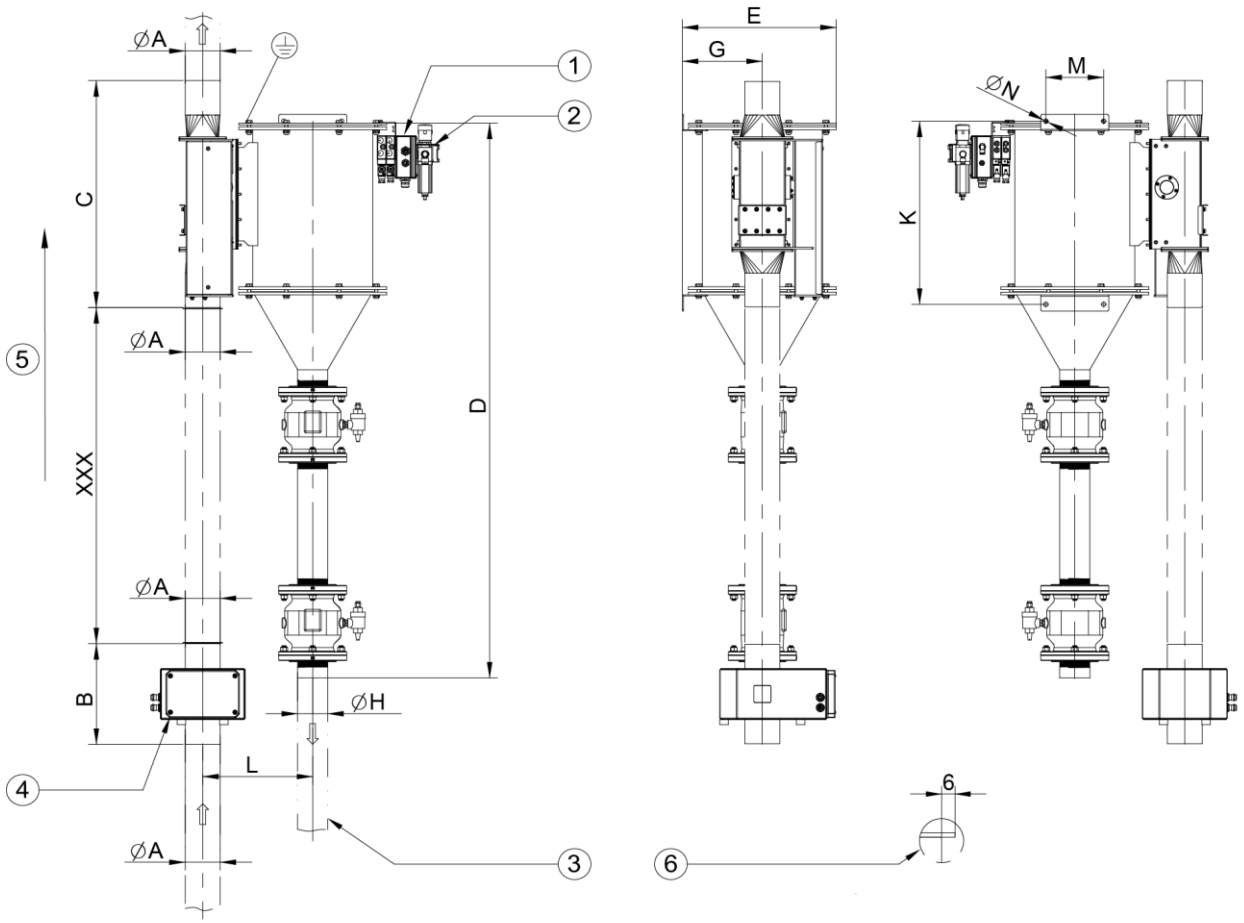
Dimensions – Vertical version (UP)



XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (use multiplier 0.07 [s] from pipe diameter size 3)

1. Monitoring
2. Pneumatics
3. Rejects outlet
4. Detector
5. Conveying direction
6. Jacob system (with ⌀ A: 100, 120, 150 and 200 mm)

	⌀ A	B	C	D	E	G	H	K	L	M	ØN	Weight [kg]*
Size 1	38, 45, 50, 55, 60	398	340	1500	350	175	60	473	246	160	11.5	70
Size 2	65, 70, 75, 80	480	430	1620	350	175	89	473	250	160	11.5	75
Size 3	85/100**/120**	660/296/310	669	1630	453	235	89	538	324	170	13	Ø85: 80 Ø100: 100 Ø120: 140
Size 4	150**/200**	380/450	1055/915	2873	690	345	200**	250	520	350	13	Ø150: 260 Ø200: 300

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)

** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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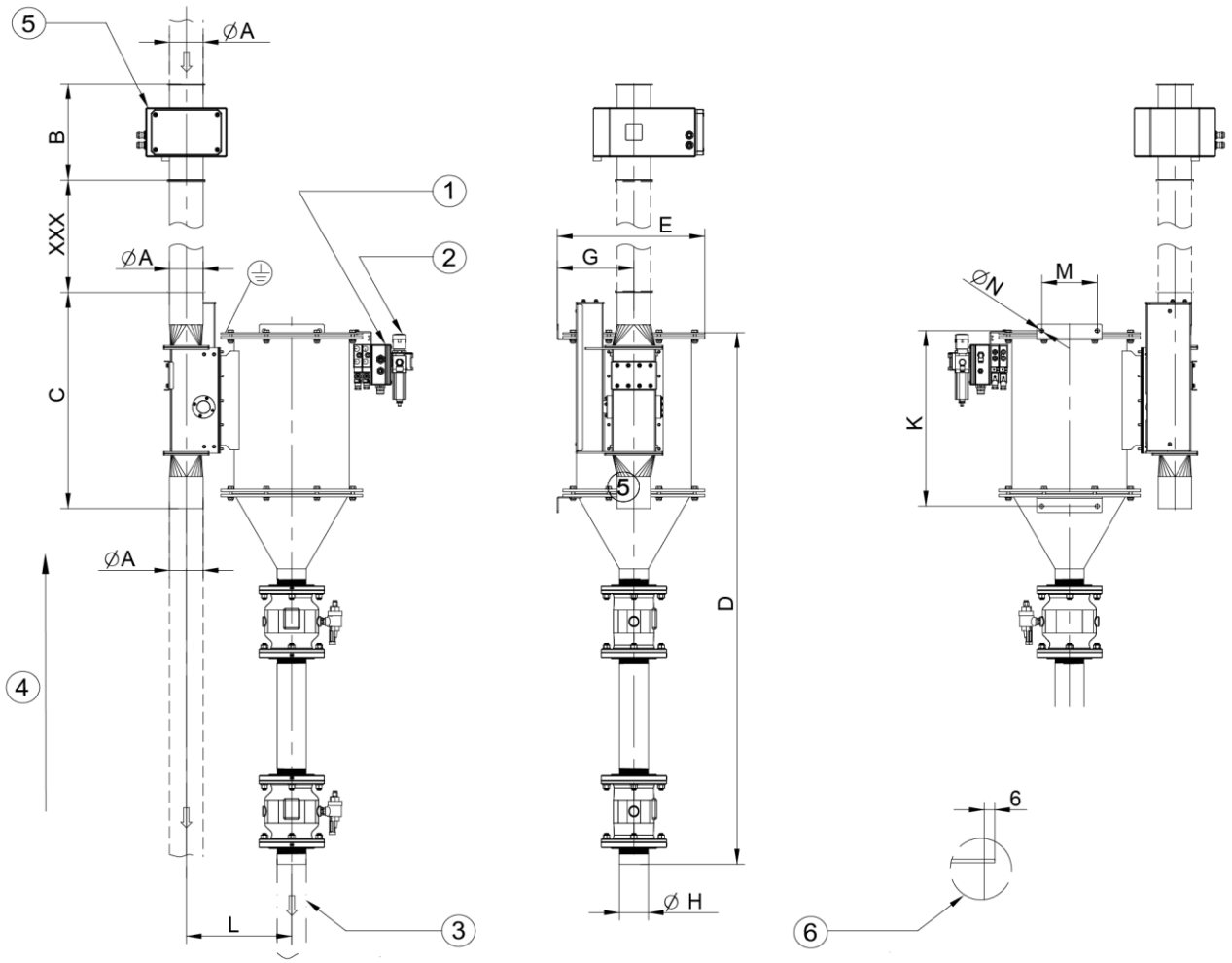
Dimensions – Vertical version (DOWN)



XXX: Distance [m] = conveying speed [m/s] x 0.05 [s]; (use multiplier 0.07 [s] from pipe diameter size 3)

1. Monitoring
2. Pneumatics
3. Rejects outlet
4. Conveying direction
5. Detector
6. Jacob system (with ⌀ A: 100, 120, 150 and 200 mm)

	⌀ A	B	C	D	E	G	H	K	L	M	ØN	Weight [kg]*
Size 1	38, 45, 50, 55, 60	398	340	1500	350	175	60	473	246	160	11.5	70
Size 2	65, 70, 75, 80	480	430	1620	350	175	89	473	250	160	11.5	75
Size 3	85/100**/120**	660/296/310	669	1630	453	235	89	538	324	170	13	⌀85: 80 ⌀100: 100 ⌀120: 140
Size 4	150**/200**	380/450	1055/915	2873	690	345	200**	250	520	350	13	⌀150: 260 ⌀200: 300

All dimensions in [mm]

* Weight without packaging (the weight may vary depending on the material version)
** with Jacob system

Note: The area around the metal detector, the metal-free zone (MFZ), must be free of any metallic components. Detailed information can be found in the operating instructions under the chapter "Assembly guidelines".

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Product description

The P-TRON GM PW is a compact metal separator for **discontinuous and continuous pressure conveying of bulk materials**. It can be flexibly integrated into **horizontal and vertical conveying lines**, reliably recognises and removes all types of metal and precisely separates them via a fast separation diverter.

The **two integrated pinch valves** ensure that the **conveying pressure remains stable during operation**, while also enabling a reliable discharge process in the event of metal contamination. As a result, the material flow remains constant and faults during operation of the system are effectively avoided.

Areas of application

The P-TRON GM PW is suitable for **food** and **non-food** applications.

Food	For applications in the food industry, e.g. for powder (P-version), ground spices, oat flakes, semolina, various types of grain and other products with comparable properties and requirements.
Non-food	For applications in the plastics, recycling and chemical industries, e.g. granulate, ground materials and powders, as well as in other industrial sectors with comparable products and requirements.
Hygienic requirements	Suitable for low to medium hygienic requirements.

Bulk material classification

Product shape **(Optional) - Product shape P-version**	Granulate, round materials Powder
Grain size **(Optional) - Product shape P-version**	0.5 mm to 10 mm - *different specifications on request* 0 mm to 2 mm
Properties of the bulk material	Dry - *Different specifications on request*
Flowability	Good (not bridging)
Type of material flow	Discontinuous or continuous suction / pressure conveying (air conveying)
Max. conveying speed	10 m/s to 30 m/s

Ambient conditions

Installation type	Horizontal installation (Version-H): left/right | right/left Vertical installation (Version-V): bottom/top | top/bottom
Product temperature	Max. +80°C
Ambient temperature	-5°C to +50°C
Storage / transport conditions	-10°C to +60°C
Relative humidity	0% to 95% (without condensation)
Permissible pressure in the conveying line	Max. +/- 0.5 bar (relative pressure)

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Equipment & specifications

Electronics version	AMD 05 / AMD 07 *(see technical data sheet for electronics)*
Operator interface	AMD 05: Graphic display with membrane keypad, keypad AMD 07: 5.7" Touch display
Operating unit - Assembly type	Separated (2 m)
Installation	-NWØ38 to NWØ120 without connecting pipe between detector coil and separation mechanism -NWØ150 to NWØ200 incl. connecting pipe between detector coil and separation mechanism - *mounting frame is recommended*
Detector coil	Stainless steel AISI 304, sandblasted
Protection class of overall device	IP 66
Parts in contact with the product	Detector coil: Stainless steel AISI 304 Separation system: Stainless steel AISI 304 EPDM sealing material (ethylene propylene diene rubber) Sensing tube material: PE-EL (polyethylene, electrically conductive) Pinch valve: - NWØ38 to NWØ65 POM, natural rubber - NWØ70 to NWØ120 aluminium, natural rubber
Compressed air connection	Compressed air supply: min. 6 bar - max. 10 bar Compressed air maintenance unit incl. hose with plug nipple (7.2 mm)
Noise level	Max. 95 dB (A) during switching operation

Detection accuracy

NW Ø	FE Ø	Non-FE Ø	AISI 304 Ø
38 – 60 (PW 60)	0.4	0.4	0.8
65 – 80 (PW 80)	0.5	0.5	0.8
85 – 120 (PW 100)	0.6	0.6	1.2
85 – 120 (PW 120)	0.7	0.8	1.2
150 – 200 (PW 150)	0.9	1.0	1.5
150 – 200 (PW 200)	1.2	1.2	1.75

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.

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Standard scope of delivery

Metal separator (metal detector, separation unit, separation mechanism, evaluation electronics, connection and connection cable)
Separation mechanism with attached collecting container and pinch valves

Operating instructions with spare parts list and electronic connection diagram
EU Declaration of Conformity:

- 2006/42/EC (Machinery 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 20 | 21 | 22 (indoor), Zone 21 | 22 (outdoor)
- Version-P: Powder applications

Conformity

Optionally available:

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

Options

Optionally available for AMD 7:

- autoTEST system E (electrical)
- autoTEST system P (pneumatic)

Accessories

- Test button (mounted on the electronics housing)
- Signal combination for error status warning
- mesuEXPORT (automatic protocol export)
- mesuREMOTE (remote maintenance kit)
- mesuLINK (networking software)
- WLAN module

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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