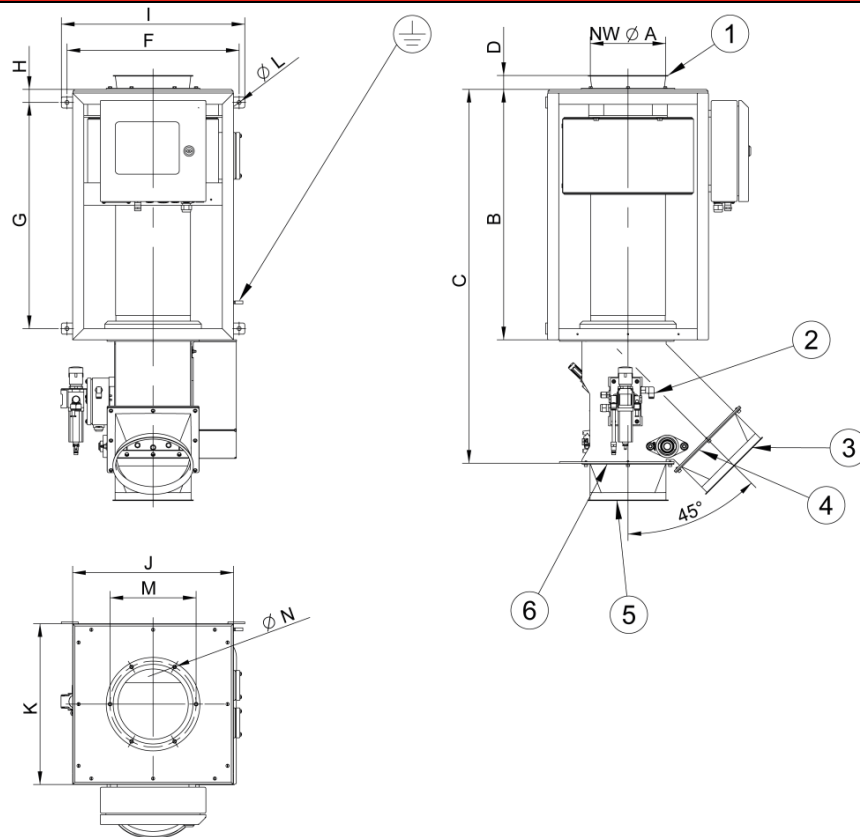


Dimensions



- | | | |
|--|----------------------------|--|
| 1 Goods infeed: | Jacob system $\geq$ NW 80 | 3 <i>Optional: Rejects outlet Jacob system</i> |
| | Smooth pipe socket < NW 80 | 4 Rejects outlet: Angular device connection |
| 2 Compressed air connection | | 5 <i>Optional: Goods outlet Jacob system</i> |
| <i>Optional: Advanced system monitoring for compressed air and separation flap</i> | | 6 Goods outlet: Angular device connection |

$\varnothing A$	B	C	D	F	G	H	I	J	K	$\varnothing L$	M	$\varnothing N$	Weight [kg]*
50	310	490	-	250	260	35	-	300	220	10.5	$\square 72 \times 72$	4 x M5	20
70	310	490	-	250	260	35	-	300	220	10.5	$\square 130 \times 130$	4 x M5	25
80	400	650	35	330	340	35	360	300	300	11	$\varnothing 108$	6 x M5	29
100	405	655	28	330	340	40	360	300	300	11	$\varnothing 130$	6 x M5	36
120	455	705	28	330	390	40	352	300	300	11	$\varnothing 150$	6 x M5	43
150	470	800	36	380	410	35	410	350	370	10.5	$\varnothing 180$	6 x M5	70
200	670	1000	37	460	605	35	490	430	430	10.5	$\varnothing 230$	6 x M5	90
250	665	1200	50	580	605	35	620	530	530	14.5	$\varnothing 280$	6 x M5	140
300	870	1405	50	680	805	40	720	630	630	14.5	$\varnothing 366$	8 x M10	190
350	1440	2100	50	760	1120	150	820	680	770	18	$\varnothing 405$	8 x M10	312
400	1540	2200	50	810	1220	150	870	730	820	18	$\varnothing 448$	12 x M10	351

All dimensions in [mm]

* Weight without packaging, including standard equipment

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".

Note: All earthing points must fall within the same earthing potential. Potential differences are not permitted.

Product description

The **QUICKTRON A EX** has been designed in accordance with the applicable **ATEX Directives** for use in areas with a risk of explosion with **dust and/or gas atmospheres**. The system facilitates **safe and reliable metal separation in free-fall applications**.

The device has been designed in accordance with the respective zone classification in the product contact area (inside) and the surrounding area (outside). In doing so, the required device categories for dust **Zone 20 (1D)**, **Zone 21 (2D)** or **Zone 22 (3D)** as well as – depending on the application – for gas **Zone 2 (3G)** have been taken into account.

The following information applies to the **European ATEX version**. Country-specific versions and approvals, e.g. in accordance with **IECEx** or **NEC/CEC**, must be coordinated with **MESUTRONIC**.

Areas of application

The QUICKTRON A is suitable for applications in the **food** and **non-food** sectors.

Food

For free-fall applications in the food industry, e.g. for ground bulk materials such as semolina or oat flakes, grains such as coffee beans, rice, maize

Non-food

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

Hygienic requirement

Suitable for low to medium requirements

Bulk material classification

Product shape

Ground bulk materials, granulate, ground materials, grains

Grain size

max. ≤ 10 mm - *Different specifications on request*

Properties of the bulk material

Dry, product-specific effects can be compensated for
- *Different specifications on request*

Flowability

Good, medium

Type of material flow

Unpressurised free-fall conveying

Ignition energy of the product

> 3 mJ

Maximum media temperature

+ 60°C

Weight of the impact partner

max. 850 g

Typical throughput

NWø [mm]	50	70	80	100	120	150	200	250	300	350	400
DL [l/h]*	6,600	13,000	16,900	26,500	38,200	59,700	106,200	165,900	238,900	325,000	424,000

* The throughput capacity (DL) was determined on the basis of free-flowing granulate at a pipe filling level of 30 % and a free-fall height of 0.5 m. The data refer to continuous conveying. Deviations occur depending on the particle shape and flow properties.

Ambient conditions

Free-fall height	Up to 500 mm above top edge of device – <i>Different specifications on request</i>
Installation type	Vertical installation
Ambient temperature	-5°C to +40°C
Storage / transport conditions	-10°C to +60°C
Relative humidity	0% to 95% (without condensation)
Dust deposits	> 5 mm not permitted

Equipment & specifications

Electronics version	AMD 05: Zone 21 (2D) Zone 22 (3D) Zone 2 (3G)
Operator interface	Graphic display with membrane keypad, keypad - Zone 2 (3G) non-standard version
Operating unit - Assembly type	Integrated - <i>optional: separated (min. 2m)</i>
Detector coil (food)	Stainless steel AISI 304
Protection class of overall device	IP 65
Parts in contact with the product	Stainless steel AISI 304, sandblasted Sensing tube material: PE-EL (polyethylene, electrically conductive) Flap seal: Black EPDM (ethylene propylene diene rubber) Shaft seal: PE (polyethylene)
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
Device connection	Goods infeed: Jacob system ≥ NW 80, smooth pipe socket < NW 80 Goods and rejects outlet: angular

Detection accuracy

NWø	FE ø	Non-FE ø	AISI 304 ø
50	0.40	0.40	0.60
70	0.50	0.50	0.80
80	0.60	0.60	1.00
100	0.70	0.64	1.00
120	0.70	0.64	1.00
150	0.80	0.80	1.20
200	1.00	1.00	1.50
250	1.20	1.50	1.50
300	1.50	1.75	1.75
350	1.75	1.75	2.00
400	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.

Explosion protection

The following overview shows the available combinations of ATEX zones and equipment markings:

Dust EX

Combination	Description	Marking*
Zone 20 / 21	Zone 20 (product area, inside) Zone 21 (surrounding area, outside)	II 1 D Ex h IIIC T135°C Da II 2 D Ex tb IIIC T135°C Db IP65 **
Zone 20 / 22	Zone 20 (product area, inside) Zone 22 (surrounding area, outside)	II 1 D Ex h IIIC T135°C Da II 3 D Ex tc IIIC T135°C Dc IP65
Zone 21 / 21	Zone 21 (product area, inside) Zone 21 (surrounding area, outside)	II 2 D Ex h IIIC T135°C Db II 2 D Ex tb IIIC T135°C Db IP65 **
Zone 21 / 22	Zone 21 (product area, inside) Zone 22 (surrounding area, outside)	II 2 D Ex h IIIC T135°C Db II 3 D Ex tc IIIC T135°C Dc IP65
Zone 22 / 22	Zone 22 (product area, inside) Zone 22 (surrounding area, outside)	II 3 D Ex h IIIC T135°C Dc II 3 D Ex tc IIIC T135°C Dc IP65

Gas EX

Combination	Description	Marking*
Zone 2	Zone 2	II 3 G Ex h nA IIB T4 Gc

* The marking describes the zone classification for the product contact area (inside) and the surrounding area (outside) in accordance with the ATEX Directive, as well as the device's constructive safety measures

** The maximum surface temperature can vary depending on the electronics used.

For versions designed for Zone 21 (outside), the respective marking on the rating plate is authoritative.

Technical notes:

General requirements:

- The device may only be used for its intended purpose.
- The operating manual and the specified servicing and maintenance conditions must be observed.
- Operation is only permissible within the specified Ex zones and usage conditions.
- The device is to be protected against non-permissible dust deposits, mechanical damage and direct UV radiation.
- All metallic components must be incorporated into the equipotential bonding system.
- Permissible temperature, voltage and ambient conditions.

Non-permissible applications:

- Modifications or conversions to the unit without manufacturer approval.
- Operation while bypassing or disabling safety devices.
- Operation outside the specified explosion protection, temperature or ambient conditions.
- Operation with damaged housings, components or protective devices.
- Use with non-approved products or applications.

Pneumatic components:

- Escaping exhaust air or leakages can create potentially explosive atmospheres.
- Compressed air must not be drawn from potentially explosive atmospheres.
- To prevent electrostatic charges, all metallic components must be incorporated into the equipotential bonding system.

Note: Further safety-relevant requirements as well as detailed information on operation, installation, and maintenance can be found in the associated operating manual.

Standard scope of delivery

Metal separator (metal detector, separation mechanism and evaluation electronics)

Operating manual with spare parts list and wiring 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)
- 2014/34/EU (Explosion protection)

Conformity

Optionally available:

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

Options

- Surface roughness RA 0.8µm to NWØ200 – in contact with the product, regardless of zone
- ATEX advanced system monitoring: Compressed air and separation mechanism Zone 21 (2D) | Zone 22 (3D)
- Test opening for test piece rods – exception of Zone 2 (3G)
- Operating unit and detector head separately (min. 2m) – EX-compatible (see Equipment & specification)

Accessories

- Jacob transition pieces on goods and rejects outlets - Stainless steel AISI 304 – regardless of zone
- Test piece (FE Ø, Non-FE Ø, AISI 304 Ø)
- mesuINSERT (test piece insertion station + collection station) – regardless of zone
- Test button (mounted on the electronics housing) – outside the EX range
- Signal combination for error status warning – outside the EX range
- mesuEXPORT (automatic protocol export) - regardless of zone
- mesuREMOTE (remote maintenance kit) – regardless of zone
- mesuLINK (networking software) – regardless of zone
- Clamping rings – regardless of EX zone

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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.