

MBA


Level Measuring Technology Series MBA800



The Digital Rotating Paddle

MBA

**SMB International and MBA Instruments:
two brands - one idea. Material Handling.**

SMB MBA

SMB and MBA core business focuses on the segment material handling. The group's product range encompasses planning, development, manufacturing, worldwide distribution and servicing of highly complex automated loading systems, filling systems, level and conductivity measurement technology, palletising stations, conveyor systems, compact high bay warehouses and shiploaders.

SMB group has consciously opted to carry out a large proportion of in-house manufacturing at its plant in Quickborn, near Hamburg. This enables the group to react quickly, specifically and spontaneously to customer requirements to a consistently high quality standard. In-house construction and the production of mechanical and electrical assemblies provide the platform for a wide vertical range of manufacture, while additionally guaranteeing reliability in terms of quality and delivery times. Our installation and service teams work on both national and international projects, while a globally operating distribution network delivers fast and expedient information and coordination.

MBA Instruments GmbH
Friedrich-List-Straße 5
25451 Quickborn
GERMANY

Phone +49 4106/123 88-80
Fax +49 4106/123 88-89
info@mba-instruments.de
www.mba-instruments.de

Digital Rotating Paddle Series MBA800 – Intelligent Measuring Technology for clever Experts

Enhancements of the rotating paddle technology have succeeded. "Stepper motor" is the secret based on the existing MBA Instruments patent of a magnetic coupling.

Dependent of different adjustments of parameters such as circuit logic, speed, standstill detection, change of rotation direction and freewheeling test 10 patented parameter sets were chosen that can be

adjusted depending on the application. The torque as sensitivity can be set separately, likewise in ten levels. The entire series MBA800 is tested according to ATEX and it is suitable for all bulk materials and applications. This also applies to very strong vibrations with certified 29 times g.

MBA810 - MBA820 for all bulk materials

What can be adjusted?

The sensitivity (torque). The smaller the torque, the more sensitive is the level sensor. Light powder can also be safely measured as gross pebbles. And also regardless of the size and design of paddle.



What are Parameter sets?

Parameter sets are the combination of pre-adjustments of different parameters (circuit logic, speed, standstill detection, change of rotation direction, freewheel test), adapted to the different applications. Each parameter set contains the optimized combination of settings of the necessary individual parameters. The parameter sets can be set by the operator easily and quickly:

Parametersets 0-9:

- 0 with change of rotation direction
- 1 without change of rotation direction
- 2 fast switching the full signal
- 3 fast switching while change of rotation direction
- 4 very fast switching as full sensor
- 5 optimized for silo empty signaling
- 6 fast switching the empty signal
- 7 for viscous material
- 8 free or special parametrization
- 9 testmode

MBA810 and MBA820

- Ambient temperature: -30...+60°C, ATEX certification (-20...+50°C)
- product contacting material: Aluminum/PTFE or stainless steel/PTFE
- power supply: 12 or 24 V DC or 115...230 V AC
- housing protection: IP65, signal: potential free or 24V



The change of rotation ensures reliable verification of paddle blocking especially in horizontal installations. If there is no blockage, the paddle pivots in an adjustable angle directly in the bulk flow; safe measurements in the downspouts directly in the material flow are possible. Different rotation speeds and response times ensure fast circuit or also a switching delay.

"I am your rotating paddle"

MBA888 maintenance free and wearless

And even easier: In version MBA888 all settings are already done. Even the housing is completely closed. Power and signal cables are connected to either by a M12 plug (not ATEX-version) or via a pre installed cable (ATEX-version).

Result:

MBA888 = "plug-and-play"-version

Connections of 12 or 24 V DC or 115...230 V AC are of course possible. Housing in stainless steel are also possible (also with quick coupling for food industry). Endurance tests of stepper motors in the automotive industry and in space have confirmed that life time of ten years or more are possible.

The entire rotating paddle series MBA800 was subject of a 29 times g vibration and shock test. The units thus are

inured to vibrations. The device is so small that it is used especially in loading equipment and downspouts. The paddle is always welded on for security reasons. Option: fixing with splint.

MBA888

- complete maintenance free
- complete wearless
- 5 rpm
- changing of turning direction
- switching delay: 6 sec
- small torque for high sensitivity
- as option: with quick coupling for food industry
- as option: switching delay with Quickswitch: 1 sec.



MBA808 Pile Bulldozer and Level Indicator "2 in 1"

Two functions in one device: The MBA808 pushes by its own power the material cone just aside. It smooths the surface, where it flattens the material and pushes it circular towards the inner wall of the silo. So the previously

unused edges of the material cone are filled. If there is no more material to form cones and the silo is really full, then the MBA808 gives the additional signal: "Silo completely full".



MBA808

- ambient temperature: -30...+60°C
- housing protection: IP65
- paddle spread up to 2 meter
- product contacting material: stainless steel