



MBA800

Digital rotary paddle level switch for bulk material

ELECTRONIC EQUIPMENT

ACOUSTIC

WEIGHING

ANTI-TILTING

VALVES

TEMPERATURE

DETECT A FIRE®

FLOW/RATE

DENSITY

INTERFACE

PRESSURE

LEVEL



- Digital measuring technology
- Proven design
- Adjustable switching behaviour
- ATEX/IECEx certification
- High process reliability

The maintenance-free MBA800 rotary vane sensor series.

The successful combination of rotary vane and motor stepper motor finds its application in the MBA800 digital level device series. Its encapsulated housing prevents the penetration of bulk material into the rotary vane, thus ruling out mechanical wear. It is the world's first maintenance-free measuring device that can be used in almost all types of bulk material. High user-friendliness is also ensured by the factory-preset electronic torque. The powerful miniature vane motor can be set in terms of torque, rotation speed, change of direction of rotation, reaction time and restart time. The torque (sensitivity) can also be adjusted separately in ten levels. The complete MBA800 device series is ATEX-approved and can therefore be used in all bulk materials and applications. This also applies to strong vibrations with 29g certified.



360° rotation with direction reversal



The luminaire head can be rotated and removed

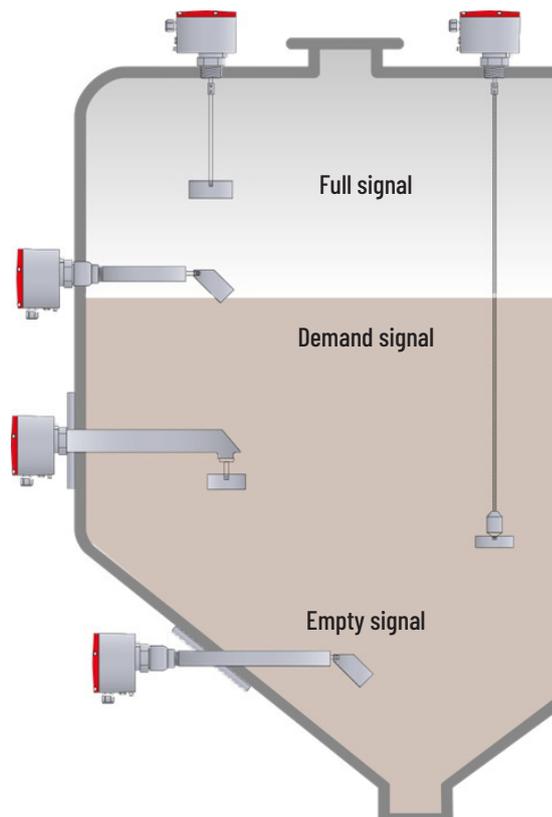


Selectable parameter sets

Possible installations

They can be used for almost all bulk materials:

- as high level sensor, vacuum sensor or demand sensor in the silo;
- as reserve sensor in the discharge pipe;
- for measurement above unloading screws or similar conveyors;
- in transfer stations;
- under the discharge edge of conveyors and many other applications.



Technical description of variants

Operating conditions

Ambient temperature	-50 +60 °C (without ATEX)	-20 ... +50 °C. (with ATEX)
Temperature in enclosure	up to 1200 °C	
Pressure in the enclosure	-0.5 ... +10 bar (atmospheric pressure based on ambient pressure)	
Vibration resistance	tested up to 29 g	

Enclosure protection class IP65 - water and dust resistant for outdoor installation

Product characteristics

	MBA810	MBA820
Supply voltage	115 V ... 230 V AC	24 V DC ... (±5%)
Current consumption	26 mA (6 VA)	250 mA (6 W)
Signal generator	Relay switching contacts, potential-free	Photo coupler as normally open contact (NC)
Signal output	loadable up to max.: 230 V 6 A	chargeable up to max.: 30 V DC 1.2 A
Torque:	Adjustable in 10 levels	
Housing	Aluminium GD-ALSI12 / 3.2582.05 / non-ferrous and therefore saltwater-resistant	
Parts in contact with the product	Steel or stainless steel 1.4305 / other materials possible on request	
Foche	VITON and PTFE / other materials possible on request	

Connection types

Flange	DN100 / PN6 and PN16; DN125 / PN6 and PN16 / threaded connector G 1 1/2"
Immersion depth	90 mm up to max. 15 minutes

MBA801

Digital semi-rotating paddle level switch for bulk material



- Digital measuring technology
- Extremely robust construction
- Adjustable torque
- ATEX/IECEx certification
- High process reliability

The robust MBA801 halfpipe completes the rotating vane sensor series.

The new digital halfpipe blade - the MBA801 halfpipe - measures directly in the falling mass flow. The extra-strong shaft (shaft diameter 12 mm) is mounted on a welded paddle under a protective cover that makes it perfectly protected against heavy or abrasive bulk material. The paddle swings 120 degrees under the protective cover. The oscillation prevents material from wrapping around the shaft or the paddle from jamming and displaying erroneous messages. If bulk material rises in the silo and blocks the oscillating shovel, an electronic signal is emitted. The halfpipe is placed in places where filling level measurement was not possible until now. The double sealing system protects the electronics from dust and moisture ingress and, with ATEX certification, the level sensors are well equipped for areas prone to dust explosions.



120° rotation range



Welded paddle and mast



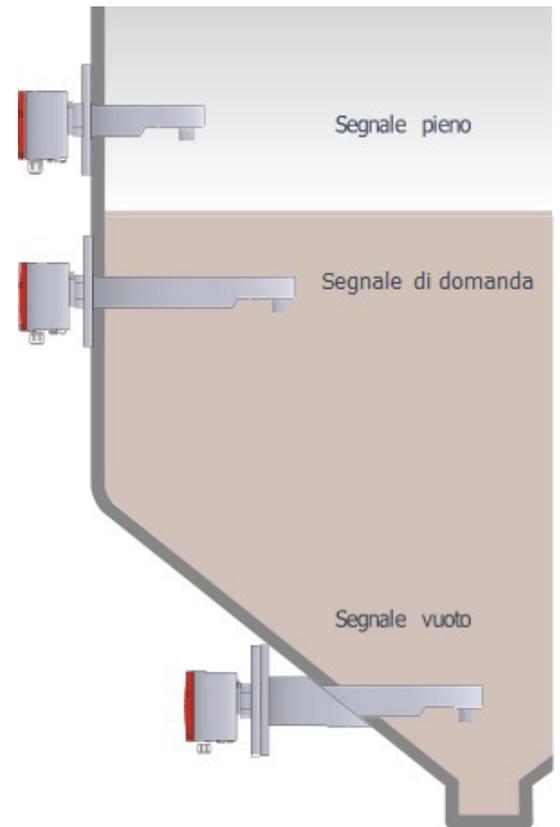
Robust, integrated protective cover

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Possible installations

They can be used for almost all bulk materials:

- as high level sensor, vacuum sensor or demand sensor in the silo;
- as reserve sensor in the discharge pipe;
- for measurement above unloading screws or similar conveyors;
- in transfer stations;
- under the discharge edge of conveyors and many other applications.



Technical description of variants

Operating conditions

Ambient temperature	-50 +60 °C (without ATEX)	-20 ... +50 °C. (with ATEX)
Temperature in enclosure	up to 1200 °C	
Pressure in the enclosure	-0.5 ... +10 bar (atmospheric pressure based on ambient pressure)	
Vibration resistance	tested up to 29 g	

Enclosure protection class IP65 - water and dust resistant for outdoor installation

Product characteristics

	MBA811	MBA821
Supply voltage	115 V ... 230 V AC	24 V DC ... (±5%)
Current consumption	26 mA (6 VA)	250 mA (6 W)
Signal generator	Relay switching contacts, potential-free	Photo coupler as normally open contact (NC)
Signal output	loadable up to max.: 230 V 6 A	chargeable up to max.: 30 V DC 1.2 A
Torque:	Adjustable in 10 levels	
Housing	Aluminium GD-ALSI12 / 3.2582.05 / non-ferrous and therefore saltwater-resistant	
Parts in contact with the product	Steel or stainless steel 1.4305 / other materials possible on request	
Foche	VITON and PTFE / other materials possible on request	

Connection types

Flange	DN100 / PN6 and PN16; DN125 / PN6 and PN16 / threaded connector G 1 1/2'
Immersion depth	Up to max. 650 mm, other immersion depths possible on request

MBA888

Digital rotary paddle level switch for bulk material



- Digital measuring technology
- Compact design
- Can be used universally
- ATEX/IECEX certification
- High process reliability

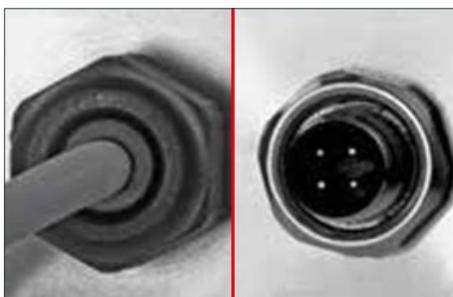
MBA888: maintenance-free level measurement with stepper motor.

The plug-and-play version of the digital gauge series is equipped with a stepper motor. The preset set of parameters guarantees extremely simple handling and optimal performance in almost all types of bulk material, regardless of properties such as force of attraction, flow properties or bulk density.

The unit's housing is completely sealed so that dust or moisture cannot penetrate. The housing of the unit is wear-free, allows maintenance-free operation and is not sensitive to shock and vibration. The unit can be connected via an M12 connector or a connecting cable.



Maintenance-free due to fully enclosed structure



Two versions for connection with cable or M12 connector



Robust, welded paddle ensures high system availability

Possible installations

They can be used for almost all bulk materials:

- as high level sensor, vacuum sensor or demand sensor in the silo;
- as reserve sensor in the discharge pipe;
- for measurement above unloading screws or similar conveyors;
- in transfer stations;
- under the discharge edge of conveyors and many other applications.



Technical description of variants

Operating conditions

Ambient temperature	-50 +60 °C (without ATEX)
Temperature in enclosure	up to 80 °C
Pressure in the enclosure	-0.5 ... +10 bar (atmospheric pressure based on ambient pressure)
Vibration resistance	tested up to 29 g
Enclosure protection class	IP65 - water and dust resistant for outdoor installation

Product characteristics

Supply voltage	115 V ... 230 V AC	24 V DC ... (±5%)
Current consumption	26 mA (6 VA)	90 mA without output load
Signal generator	Relay switching contacts, potential-free	Photo coupler signal full or empty
Signal output	loadable up to max.: 230 V 6 A	chargeable up to max.: 24 V DC 1.2 A
Torque:	Aluminium or stainless steel	
Housing	Steel or stainless steel 1.4305	
Parts in contact with the product	VITON and PTFE	
Foche	with change of direction of rotation, switching time 6 s / without change of direction of rotation, switching time 1 s	
Connection types	M12 connector, A-coded for 24 V version only or 10 m cable with open stranded wires	
Flange		
Immersion depth	thread G 1 1/2'	
Profondità di immersione	120 mm / 180 mm / 250 mm	