

VM9-BA

AMPLIFIER FOR THE AUTOMATIC BALANCING
OF THE SPINDLES IN GRINDING MACHINES



VM9-BA is a system for the automatic balancing of the spindles in grinding machines. It is designed for simple and cost-effective applications. It is suitable for both new machines and retrofitting.

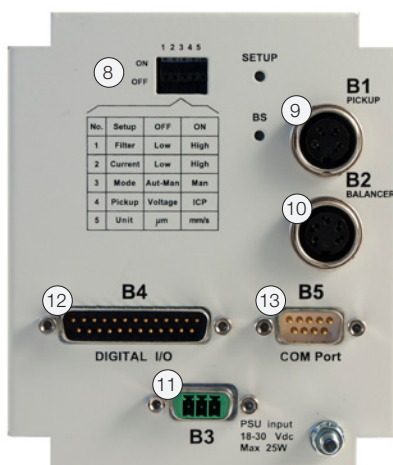
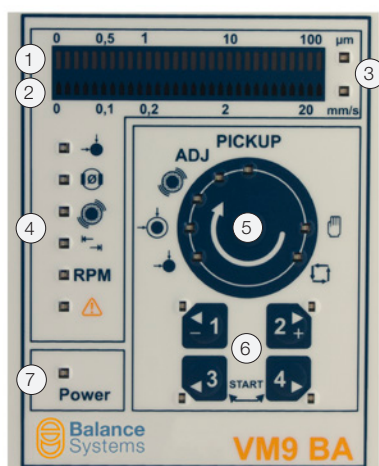
Features

- Compact and ergonomic
- Automatic balancing of the grinding spindle
- Automatic neutral cycle (compensation weights at 180°)
- Programmable limits for balancing and vibration alarm
- Unbalance level displayed by led bar graph

Benefits

- Optimizes quality of the surface finish
- Constantly controls vibrations of the spindle
- Extends lifetime of the spindle and grinding wheel
- Does not require surveillance

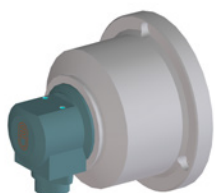
Configuration



- ① Led bar graph for the indication of the unbalance level
- ② Led lights of the programmed limits of balancing
- ③ Led lights of the unbalance measuring unit
- ④ Status signaling
- ⑤ Selector for parameters setup and operating mode
- ⑥ Multi-function keyboard
- ⑦ Led light for a correct power source
- ⑧ Dip switches for hardware configuration
- ⑨ [B1] Vibration transducer input
- ⑩ [B2] Control of the balancing head
- ⑪ [B3] Power source
- ⑫ [B4] Digital I/O interface
- ⑬ [B5] RS232 serial interface (for service operation)

Range of SDE balancing heads

SDE balancing head is the first device in the world which has been specifically designed by Balance Systems with moment-free architecture. This solution brings the benefit of no dynamic-influence on the grinding spindle which improves the surface finishing. SDE is mounted externally by a flange and it is controlled via cable. This solution is suitable for retrofitting applications.

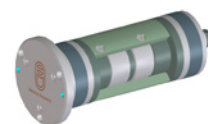


Fitting diameter [mm]	Max compensation capacity [gcm]
95	1700
114	6500
130	12000

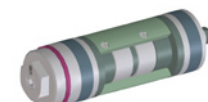
Range of SDI balancing heads

SDI balancing head is the first device in the world which has been specifically designed by Balance Systems with moment-free architecture. This solution gives the benefit of no dynamic-influence on the grinding spindle which improves the surface finishing. SDI is mounted inside the spindle shaft through a flange or a self-lock system and it is controlled via cable.

Diameter of the spindle bore [mm]	Max compensation capacity [gcm]
38	580
42	1200
50	2000
55	4400
60	5000
63, 70, 81	8700



SDI for flange assembly



SDI for Self-lock systems assembly

Customized solutions with different dimensions and capacities are available upon request.

Technical data

Versions	Rack and table mounting
Power source	18-30 Vdc – max 30 W
Unbalance measuring unit	mm/s, μm
No. of balancing plane	1
Control of the balancing head	By cable
Rotation speed sensor	Integrated in the balancing head
Vibration transducer	Accelerometer with screw fastening or magnetic
Interface with PLC/NCU	Digital I/O, 24V opto-isolated sink-source, D-Sub connector with 25 pole
Working temperature range	0° .. 55° C
Working relative humidity range	0 .. 98 % without condensation
Protection degree (IEC 60529)	IP54 (front side – dashboard panel) – IP20 (rear side)
Keyboard	Multi-function with 5 buttons
Display	Led bars
Serial interface (for service operation)	RS232
Dimensions (WxHxP)	108 x 133 x 78 mm
Weight	1 kg



Specifications may be subject to change without notice. © 2016 | 02 | Balance Systems S.r.l.

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