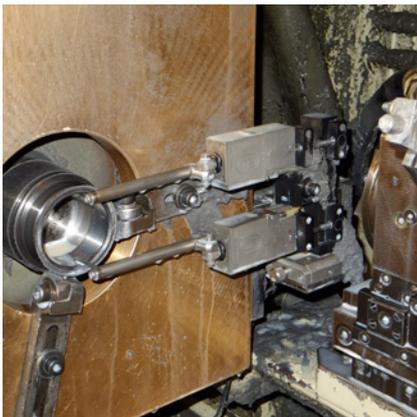


VM9-GA

IN-PROCESS GAUGING AMPLIFIER
FOR GRINDING MACHINE



In-process gauging system designed for simple, cost-effective and customized applications. Solutions include gauging of internal, external diameters and thickness both on smooth and on interrupted surfaces.

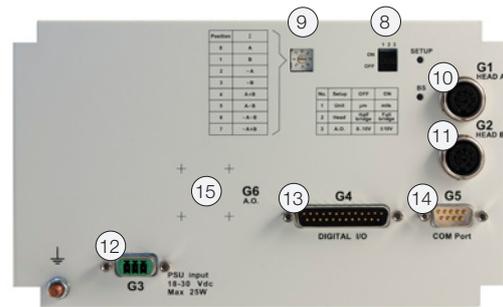
Features

- Compact and reliable even in rugged environments
- Analog display of the dimension, ergonomic keyboard with a selector and 2 buttons
- 4 commands to control the feed rate (roughing, finishing, dwell, end of cycle)
- Process diagnostics

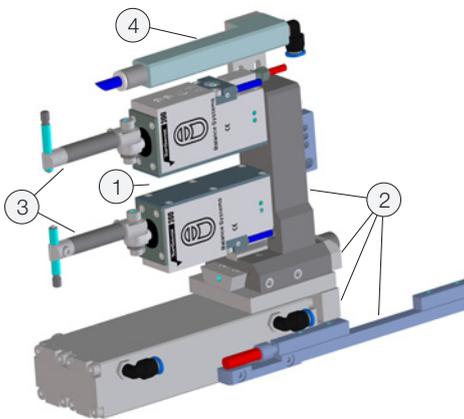
Benefits

- Makes production stable and consistent with tight tolerances
- Compensates for the grinding wheel wear
- Can be implemented in any type of grinding machine, both new and retrofitting
- Easy to use
- Does not require surveillance

Configuration



- | | | |
|--|--|---|
| ① Analog display of the dimension with auto-range | ⑥ Multi-function keyboard | ⑪ [G2] Input of the gauge head No.2 |
| ② Led light of the display range | ⑦ Led light for a correct power source | ⑫ [G3] Power source |
| ③ Led light of the measuring unit | ⑧ Dip switches for hardware and software configuration | ⑬ [G4] Digital I/O |
| ④ Status signaling of the outputs to control the feed rate | ⑨ Selector for the definition of the dimension | ⑭ [G5] RS232 serial interface (for service operation) |
| ⑤ Selector for parameters setup and operating mode | ⑩ [G1] Input of the gauge head No.1 | ⑮ [G6] Analog interface (optional) |



ID	Type	Description
1	Top Gauge 200	TG200 modular gauge heads: <ul style="list-style-type: none"> • TGN030 – universal, for small range, w/o retraction • TGF030 – universal, for small range, with retraction • TGR040 – universal, for small range, with adjustable retraction
2	Supports and glides	<ul style="list-style-type: none"> • Complete set of fixed and re-toolable brackets • Pneumatic and hydraulic slides with stroke of 50mm, 75mm
3	Brackets and probes	<ul style="list-style-type: none"> • Complete set of fingers with different shape and length, fixed or re-toolable, with anti-crash option (exclusive Balance Systems's design) • Threaded contact in chemical diamond or carbide • Roll bar contact in carbide
4	Thermal stabilization	Kit of systems for thermal stabilization based on "showers" of coolant liquid

All solutions are professionally studied and customized according to the range of measurement, the center height, the type of surface to be measured.

Technical data

Versions	Rack and table mounting
Power source	18-30 Vdc – max 30 W
Measuring unit	µm, mil
Range of measures	+50..-10 µm ; +500..-100 µm +20..-0,4 mil ; +200..-40 mil
Step for offset corrections	1 µm; 0,2 mil
No. of channels for gauge heads	2
Compatible of gauge transducers	LVDT / HBT
Compatible gauge heads models	Balance Systems Top Gauge 200 (Mod. TGF, TGN, TGR) Balance Systems Top Gauge 50 /100 (Retrofitting) Analog LVDT probes
Interface with PLC/NCU	Digital I/O, 24V opto-isolated sink-source, D-Sub connector with 25 pole
No. of commands for feed-rate control	4 (roughing, finishing, dwell, end of cycle)
Analog interface [optional]	0..10 V, -10..10 V
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 3 buttons
Display	Analog with auto-range
Serial interface (for service operation)	RS232
Size (WxHxP)	108 x 216 x 78 mm
Weight	1.5 kg



Specifications may be subject to change without notice. © 2015 | 09 | Balance Systems S.r.l.

Distributor:

Balance Systems S.r.l
Via Roberto Ruffilli, 8/10
20060 Pessano con Bornago
(Milan) - Italy
Tel. (+39) 02.9504955
Fax (+39) 02.9504977
info@balancesystems.it
www.balancesystems.com

