



FMS Tension Control / Measuring Amplifiers EMGZ310-Series Compact, digital measuring amplifier

- 3 key operation with LCD, simple procedures for offset and calibration Simple operation, quick configuration
- Detachable terminal blocks, standardized current and power outputs Simple start-up and integration
- 14 bit resolution, cycle time 1 ms
 Highly precise results, for high process
 speeds



EMGZ310-Series

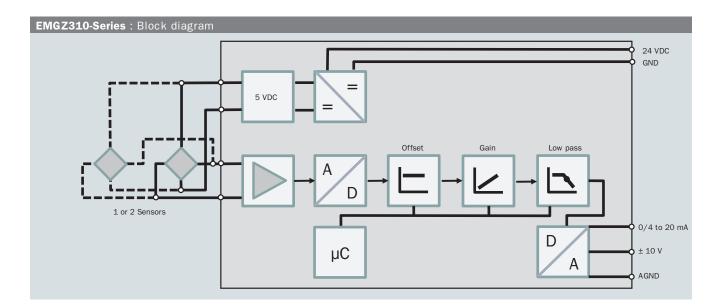
The EMGZ 310 is a compact, digital strain gauge amplifier. It is designed for applications that involve the measurement or control of web tension in coating, laminating, printing, extrusion, or other similar roll to roll processes. The quick and flexible device configuration is straightforward with the extensive range of parameters being set using the three easily accessible keys and the integrated LCD.

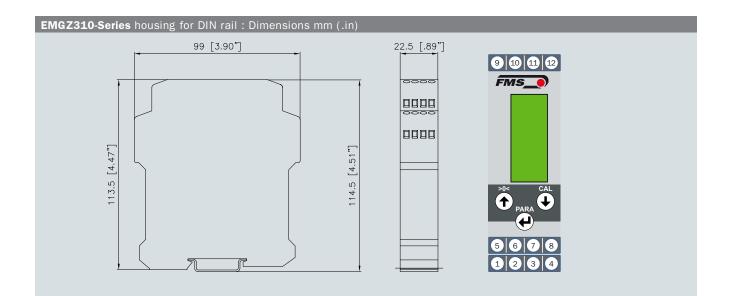
Funktional description

The mV signal generated by the force sensors is amplified and fed directly to a high-resolution A/D-converter. Both voltage and current outputs are provided as standard. Functions like signal filtering, automatic offset compensation, and gain calculation are all part of the versatility of the EMGZ 310 series digital amplifier.



DATA SHEET FMS Tension Control | Measuring Amplifiers | **EMGZ310-Series**





| EMGZ310-Series : Technical Data | | |
|---------------------------------|---|--|
| Number of channels | 1 channel for 2 sensors | |
| Cycle time | 1 ms | |
| Power supply for force sensor | 5 VDC, highly stable | |
| Sensor feedback signal | \pm 9 mV (max. 11.25 mV); with option .V05 \pm 2.5 mV | |
| Voltage output | \pm 10 VDC, min. 1000 $\Omega,$ 12 bit | |
| Current output | 0/4 to 20 mA, max. 500 Ω, 12 bit | |
| Resolution A/D converter | ± 10000 Digit (14 Bit) | |
| Measuring error | < 0.05 % FS | |
| Configuration | 3 keys, 4-digit LCD | |
| Protection class | IP 20 | |
| Power supply | 24 VDC (18 to 36 VDC) | |
| Power consumption | 3 W | |
| Temperature range | -10 to +50 °C (14 to 122 °F) | |
| Weight | 370 g (0.82 lbs) | |

| MGZ310 | .V05 | | |
|--------|------|--|--|
| | | .V05 sensor feedback signal \pm 2.5 mV (max. \pm 3.125 mV) | |
| | | Series | |

EMGZ310-Series : Options

.V05 Sensor feedback signal ± 2.5 mV (max. ± 3.125 mV) for force sensors with a sensitivity of 0.5 mV/V

EMGZ310-Series : Scope of supply

Measuring Amplifier



Other products : Tension Control



About FMS

FMS Force Measuring Systems AG is the market leader in the field of web tension measurement, control and specialist for web guiding solutions. For the wire industry we are the only manufacturer offering a complete range of technologies for force measurement, data processing and radio transmission of signals.

Our in house developed products are used in the manufacturing industry, converting, metals, paper, textiles, as well as in cable and wire rope production. Utilising the latest technology, high quality components and a firm understanding of customer applications, FMS supports customers worldwide in the effort to maximize the productivity of their machines. Since 1993, our highly qualified employees have been creating high-end solutions for machine builders and plant operators. As an owner-managed company, we pride ourselves on being personal and approachable with the ability to make decisive moves fast.