

CMGZ 100 Series Analog Tension Controller

Full PID controller

Closed loop Tension Control

No programming required

Easy to setup

Galvanically isolated

Protected against electrical noise

Compact analog design

Cost effective control solution



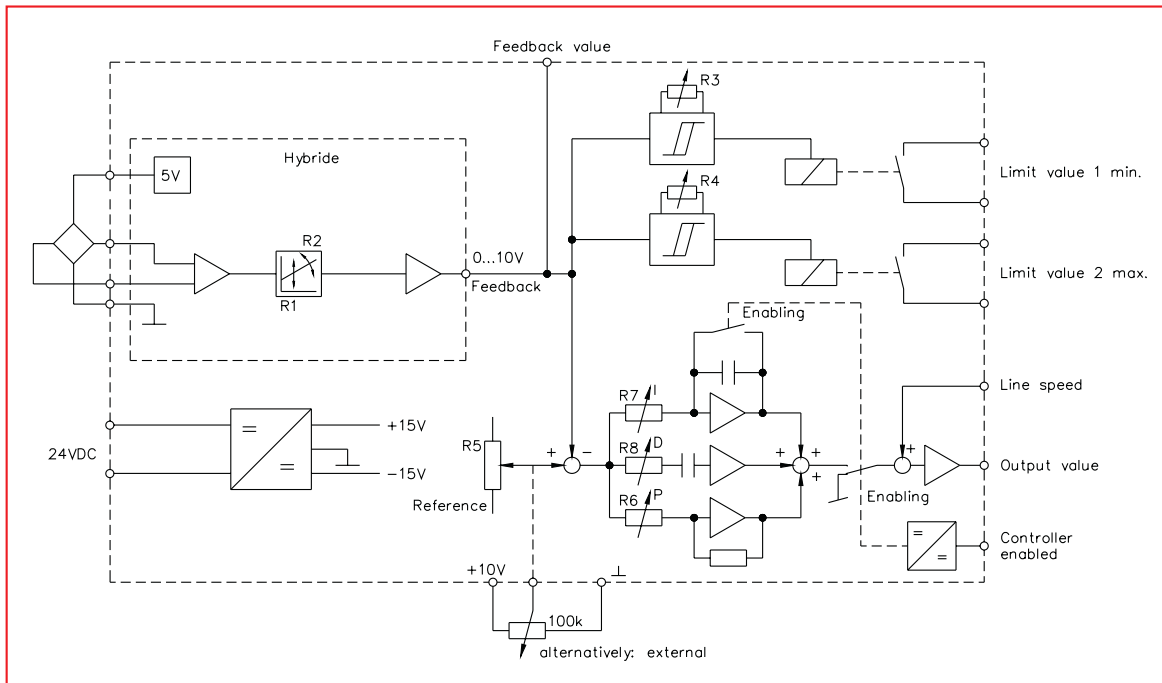
● **CMGZ 100 Series**

Maintaining constant material tension during a production run is critical to the overall process and the finished product. The CMGZ 100 analog tension controller ensures stable material tension utilizing any clutch, brake or drive. Applications that can directly benefit from closed loop tension control are unwinding, winding, and intermediate drive or nip tensioning zones.

● **Functional Description**

The CMGZ 100 controller utilizes a hybrid circuit for tension sensor excitation and amplification of the tension sensor signal. Set-up is done with easily accessible 10-turn trimmers. The controller provides a $\pm 10V$ output for both material tension feedback and control output value. It is enabled utilizing a digital input and offers filtering of the feedback signal. The CMGZ 100 controller can accept a line speed signal overlay to improve control dynamics. In addition, 2 limit switches (relay) corresponding to 2 LEDs on the front of the controller are offered.

CMGZ 100 Series ● Block diagram



CMGZ 100 Series ● Technical Data

Circuit card model	European standard size 19" board
Connector	DIN 41612 type F32 d+z
Sensor supply voltage	5 VDC ± 11 ppm/°F [± 20 ppm/K] max. 30 mA
Offset range	± 9mV
Gain factor range	500...5000
Linearity error	< 0.1 %
Temperature drift offset	< 28 ppm/°F [50ppm/K]
Lowpass cut-off frequency	adjustable, ca. 1...1000 Hz
Analogue output controller	± 10V max. 10 mA short circuit proof
Analogue output feedback	± 10V max. 10 mA short circuit proof
Controller enabling	12...30V AC or DC, galvanically isolated
Limit switch 1 min.	Relay 24 V / 0.5 A ¹⁾
Limit switch 2 max.	Relay 24 V / 0.5 A ¹⁾
Power supply	24 VDC (18...36 VDC) max. 0.1 A, galvanically isolated
Power consumption	max. 3 W
Temperature range	14...122 °F [-10...+50 °C]

¹⁾ Threshold adjustable with trimmer

Note: The insert card support block EMGZ555959 must be ordered separately.
 Option: Front panel with 12 TE (for 19" rack). Order code: CMGZ100.581749

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