

EMGZ 470/472 PROFIBUS® Tension Measuring Amplifier

Microprocessor controlled
High performance and speed

Functions parameterized via PROFIBUS®
Easy set-up and programming

IP 67 aluminium housing
Can be used in harsh environments

Galvanically isolated
Protected against electrical noise

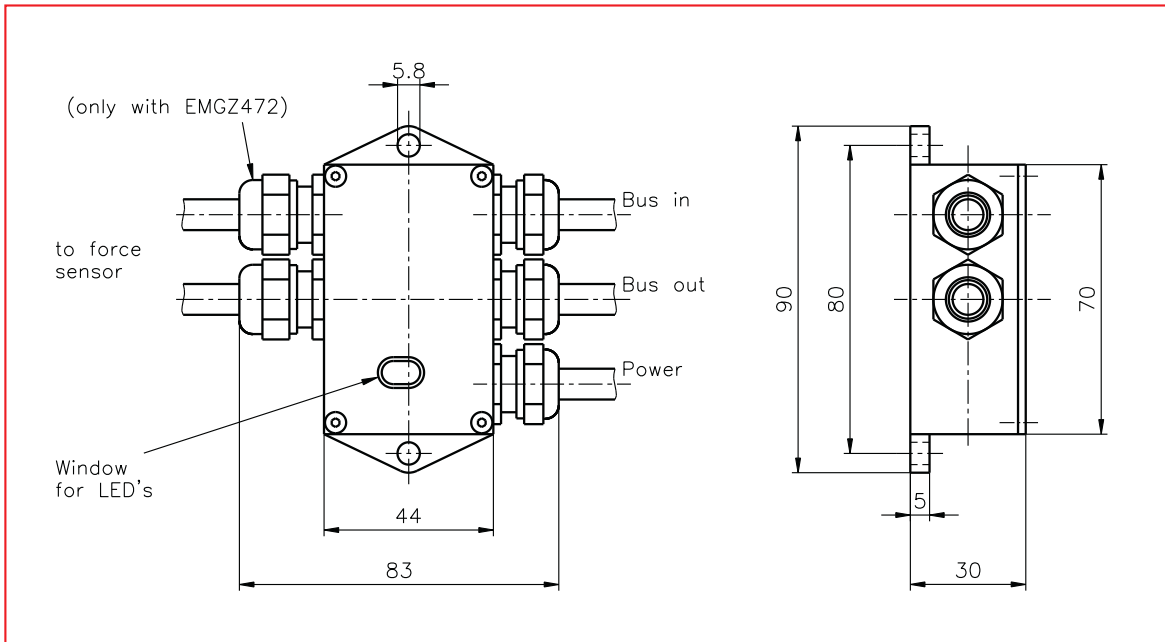


● **Functional description**

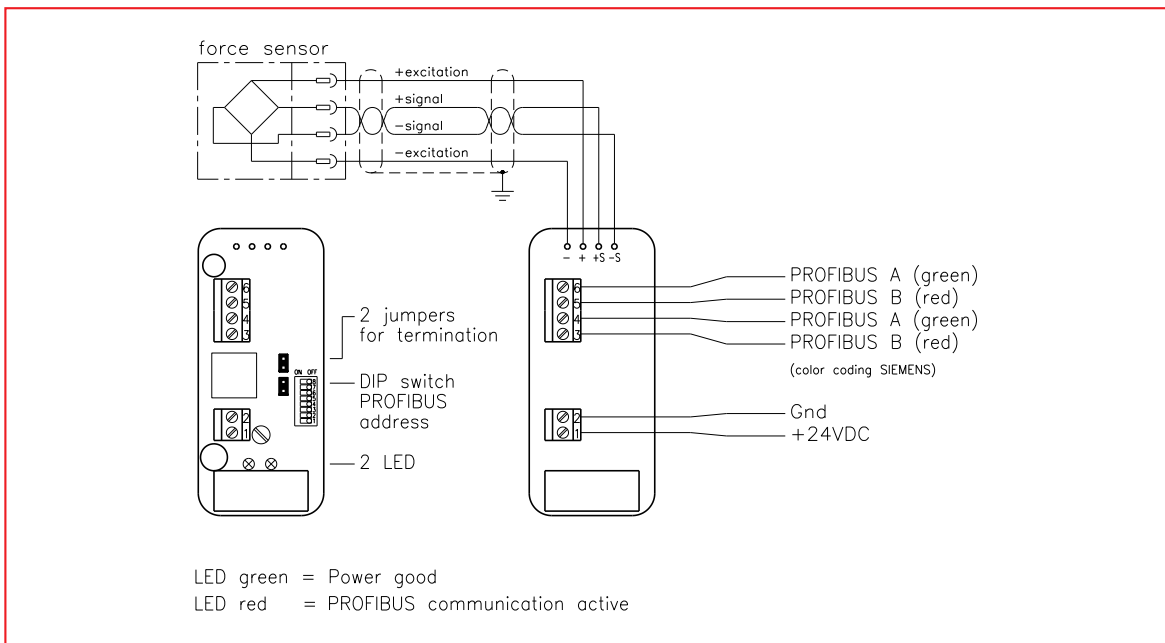
The EMGZ 470/472 digital tension measuring amplifiers are suitable for tension measurement with all FMS force sensors. The complete operation is performed by the integrated PROFIBUS® connection. Design and function are optimized for tension measuring applications. The mV signal of the sensors are pre-amplified with a fixed gain and then fed directly to the A/D converter.

Signal conditioning is done digitally. The PROFIBUS® interface provides flexible signal processing by the control unit. For maximum flexibility, two different PROFIBUS® operating modes are possible:
„Feedback with status“ (3 data bytes)
and „Full Control“ (6 data bytes).

EMGZ 470 / 472 PROFIBUS® • Dimensions in mm



EMGZ 473.W Series • PROFIBUS® and sensor wiring



EMGZ 470 / 472 PROFIBUS® • Technical data	
Force sensors	EMGZ 470.W: For connection of one force sensor (1 x 350 Ω) EMGZ 472.W: For connection of two force sensors (2 x 350 Ω)
Sensor supply voltage	4 VDC
Input signal	0...7.2 mV (max. 9.92 mV)
Resolution A / D converter	± 2048 Digit (12 Bit)
Measuring error	< 0.05 %
Measuring rate	1 ms
Operation	Entirely by PROFIBUS®
Feedback value	Integral number ± 32767
PROFIBUS® protocol	PROFIBUS® DP slave (EN 50 170)
PROFIBUS® data transfer rate	Up to 12 Mbaud
PROFIBUS® address	0...125 (by DIP switch)
PROFIBUS® operating modes	Full control, Feedback with status
Connection	3 cables ø 8...10 mm through PG glands (Bus in, Bus out, Power)
Termination	By 2 jumpers
Required cables	PROFIBUS® cable type A, STP 2 x 0.342
Power supply	24 VDC (18...36 VDC) / 0.1 A
Temperature range	- 10...60 °C
Protection class	IP 67
Weight	0.5 kg

Note:

When implementing a real-time control loop ensure that the application-specific PROFIBUS® protocol is short enough timewise to provide sufficient control dynamics.



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