

## EMGZ 470.D / 472.D Double Channel PROFIBUS® Tension Measuring Amplifier

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**Microprocessor controlled**  
**High performance and speed**

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**Functions parameterized via PROFIBUS®**  
**Easy set-up and programming**

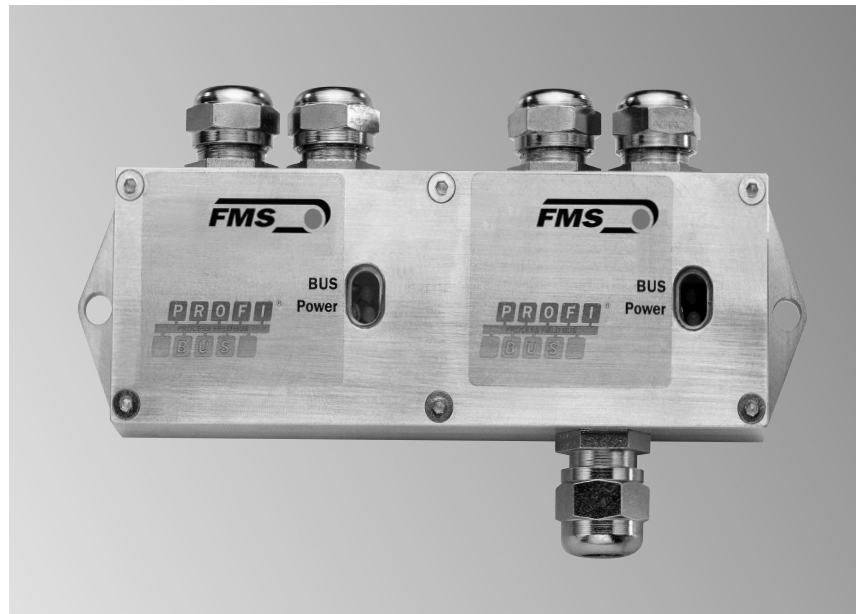
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**IP 67 aluminium housing**  
**Can be used in harsh environments**

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**Galvanically isolated**  
**Protected against electrical noise**

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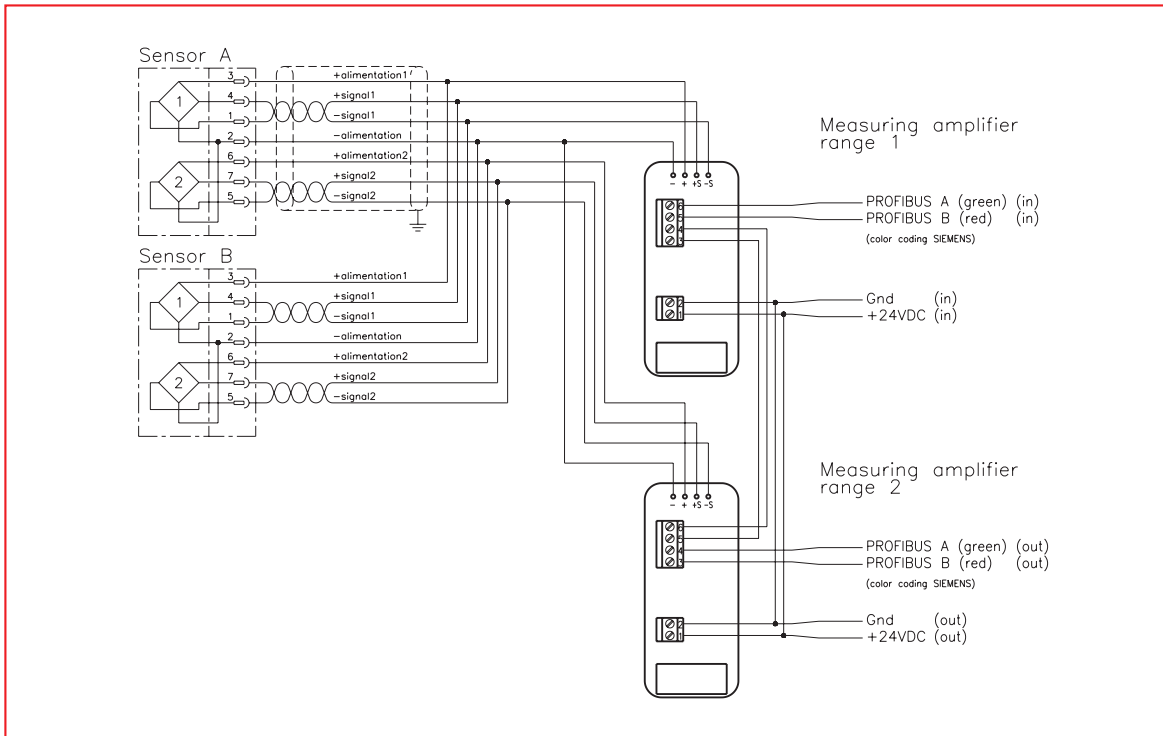
### ● EMGZ 470.D / 472.D

The EMGZ 470.D/472.D digital double channel tension measuring amplifiers are suitable for tension measurement with double range force sensors. The complete operation is performed by the integrated PROFIBUS® connection.

### ● Funktional description

Design and function are optimized for tension measuring applications. The mV signal of the sensors are amplified with a fixed gain and then fed directly to the A/D converter. Signal conditioning is done digitally. Each measuring range has its own PROFIBUS® interface. This enables a 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.D / 472.D • Wiring diagram**

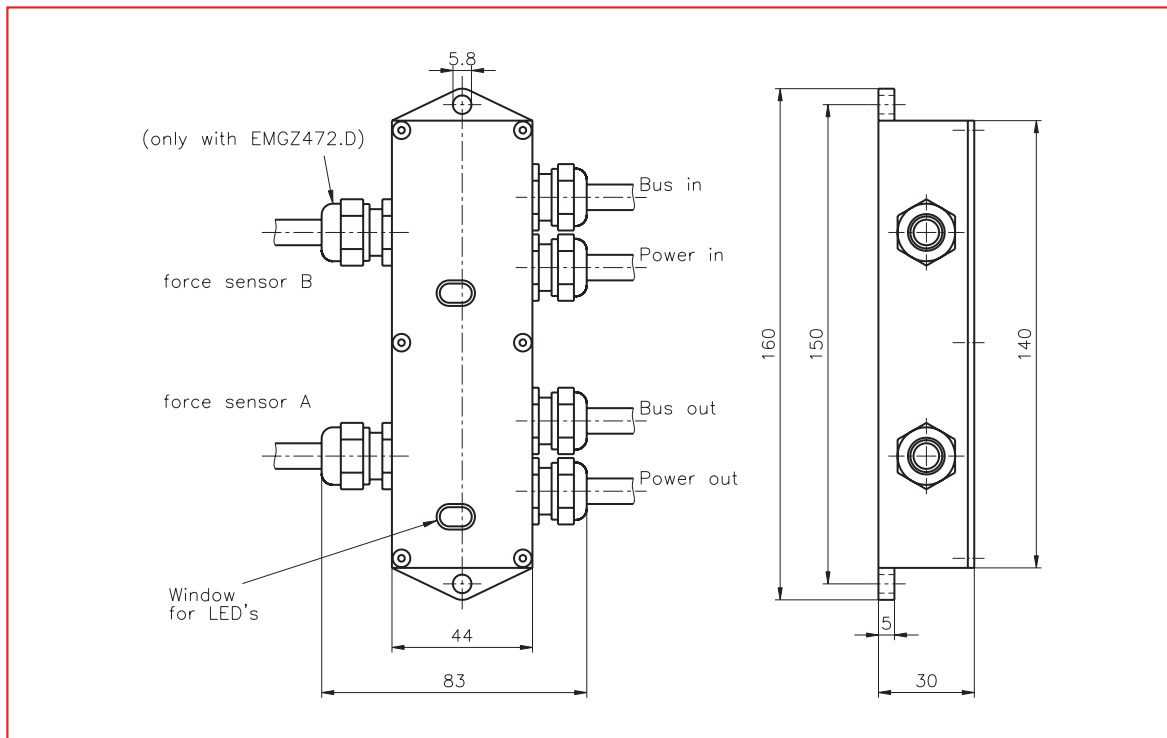


**EMGZ 470.D / 472.D • Technical data**

<b>Force sensors</b>	<b>EMGZ 470.D:</b> 1 x 2 x 350 Ω <b>EMGZ 472.D:</b> 2 x 2 x 350 Ω
<b>Sensor supply voltage</b>	4 VDC
<b>Input signal</b>	0...7.2 mV (max. 9.92 mV)
<b>Resolution A / D converter</b>	± 2048 Digit (12 Bit)
<b>Measuring error</b>	< 0.05 %
<b>Measuring rate</b>	2 ms
<b>Operation</b>	Entirely by PROFIBUS®
<b>Feedback value</b>	Integral number ± 32767
<b>PROFIBUS® protocol</b>	PROFIBUS® DP slave (EN 50 170)
<b>PROFIBUS® data transfer rate</b>	Up to 12 Mbaud
<b>PROFIBUS® address</b>	0...125 (by DIP switch) (each measuring range requires its own address)
<b>PROFIBUS® operating modes</b>	Full control, Feedback with status
<b>Connection</b>	5 cables ø 8...10 mm through PG glands (Bus in, Bus out, Power)
<b>Termination</b>	By 2 jumpers
<b>Required cables</b>	PROFIBUS® cable type A, STP 2 x 0.34 <sup>2</sup>
<b>Power supply</b>	24 VDC (18...36 VDC) / 0.1 A
<b>Temperature range</b>	- 10...60 °C
<b>Protection class</b>	IP 67
<b>Weight</b>	0.25 kg

Note: When implementing a real-time control loop, it has to be ensured that the application-specific PROFIBUS® protocol is short enough timewise to provide sufficient control dynamics.

**EMGZ 470.D / 472.D • Dimensions in mm**



**EMGZ 470.D**

For connection of **one** double range force sensor.

**EMGZ 472.D**

For connection of **two** double range force sensor.

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