

## EMGZ473.W / EMGZ474 Series 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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**Compact design, IP 67 / DIN Rail**  
Low space requirements, easy mounting

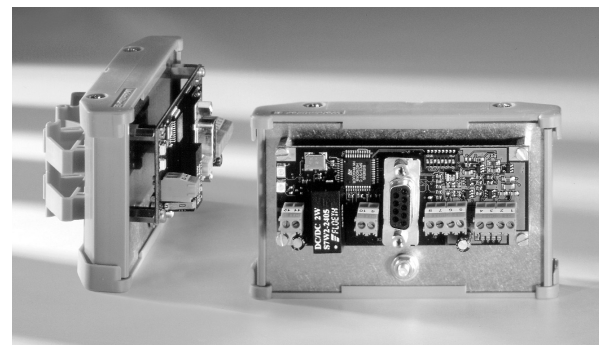
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**Galvanically isolated**  
Protected against electrical noise

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EMGZ473.W



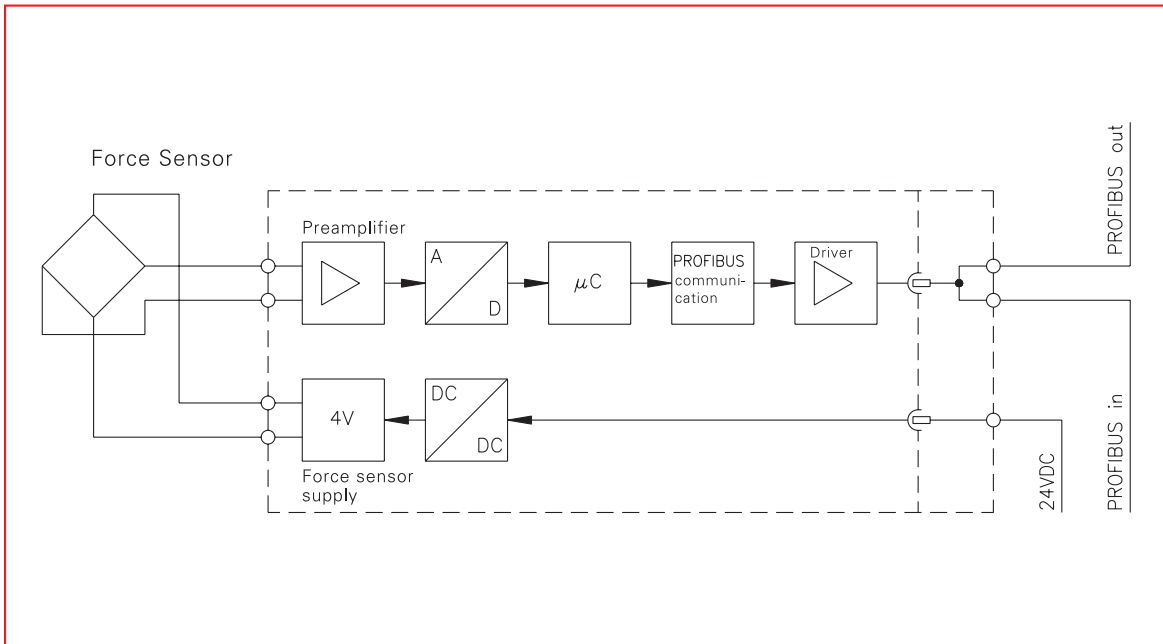
EMGZ474

- **EMGZ 473.W / EMGZ 474 Series**

The digital tension measuring amplifiers EMGZ 473.W / EMGZ 474 are suitable for tension measurement with all FMS force sensors. The complete operation is done by the integrated PROFIBUS® connection. The cover of the EMGZ 473.W housing has an electrical design identical to the PROFIBUS® standard plug on the EMGZ 474. This allows disconnection of the measuring amplifier from PROFIBUS® without disrupting the bus line.

The mV signal of the sensors is 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“ (4 data byte) and „Full Control“ (6 data byte).

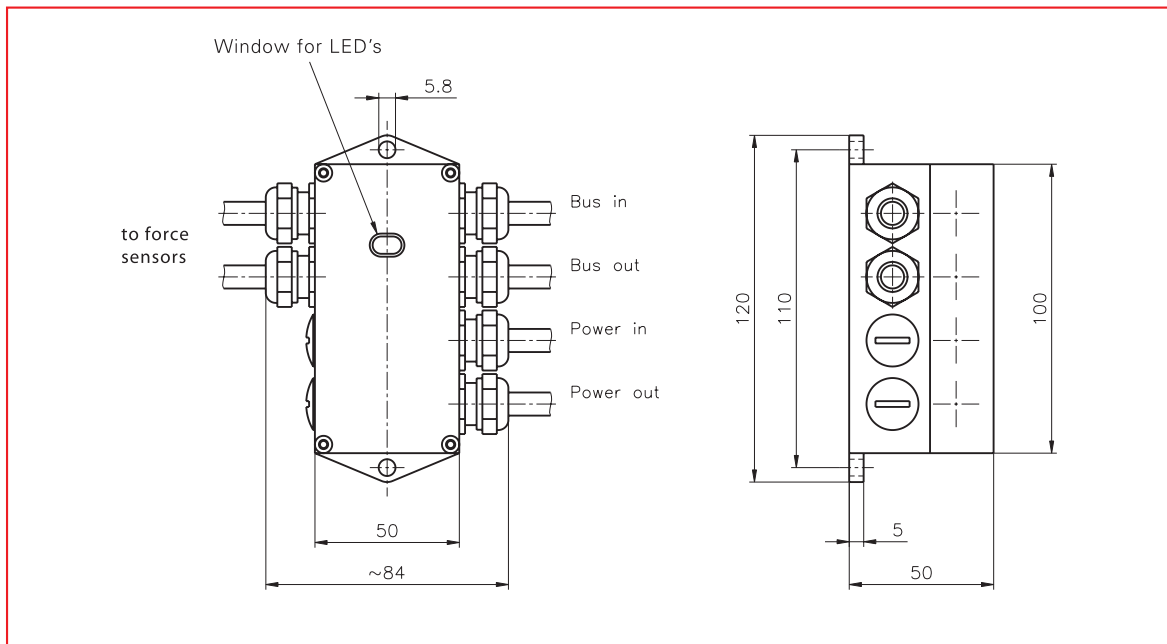
**EMGZ 473.W / EMGZ 474 Series • Block diagram**



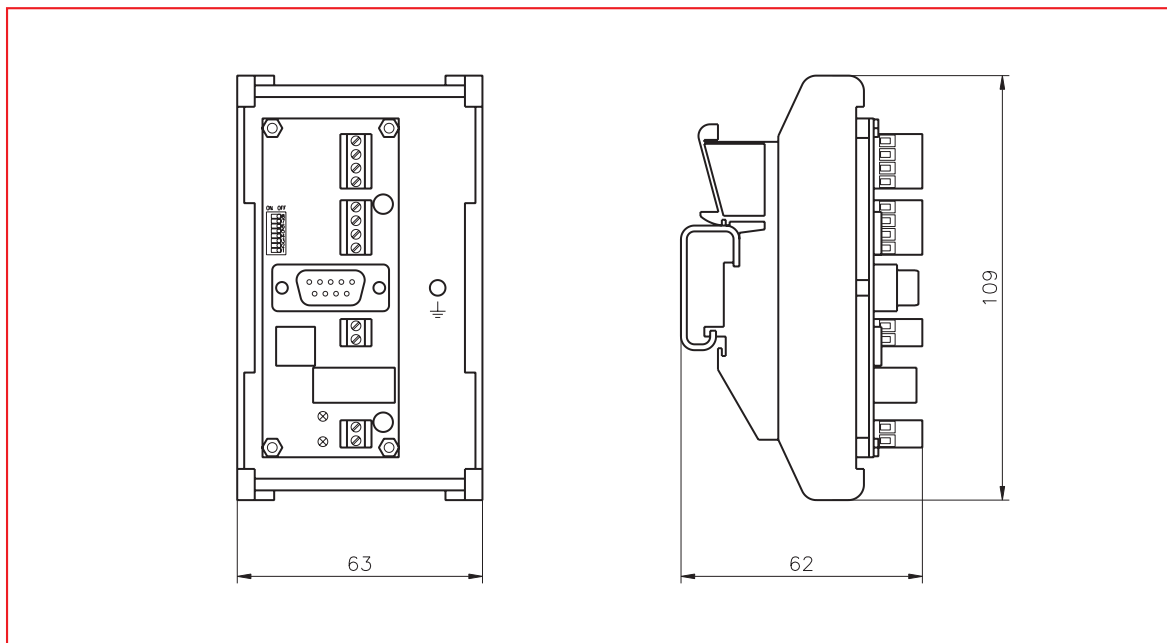
**EMGZ 473.W / EMGZ 474 Series • Technical data**

<b>Force sensors</b>	1...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>	10.000 at nominal load of force sensor (7.2 mV)
<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)
<b>PROFIBUS® operating modes</b>	Full control, Feedback with status
<b>Connection</b>	EMGZ 473.W: 4 cables ø 8...10 mm through PG glands EMGZ 474: PROFIBUS® plug D-Sub-9
<b>Termination</b>	EMGZ 473.W: by 2 jumpers EMGZ 474: in side PROFIBUS® plug
<b>Required cables</b>	PROFIBUS® cable type A, STP 2 x 0.342
<b>Power supply</b>	24 VDC (18...36 VDC) / 0.1 A, galvanically isolated
<b>Temperature range</b>	- 10...60 °C
<b>Protection class</b>	EMGZ 473.W: IP 67 EMGZ 474: IP 00
<b>Weight</b>	EMGZ 473.W: 0.3 kg EMGZ 474: 0.2 kg

**EMGZ 473.W Series • Dimensions in mm**



**EMGZ 474 Series • Dimensions in mm**



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