

EMGZ 480 Measuring Amplifier with CAN-BUS® Interface

Microprocessor controlled

Top performance at high machine speed

Data transfer and parameter setting via CAN-BUS®

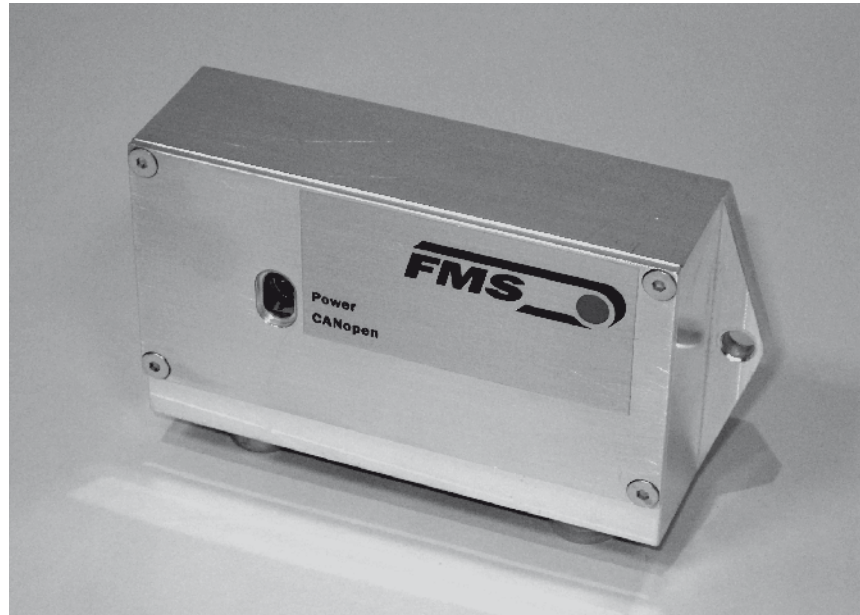
Easy set-up and programming

Compact design, protection class IP 67

Low space requirements, easy mounting

Galvanically isolated

Protected against electrical noise



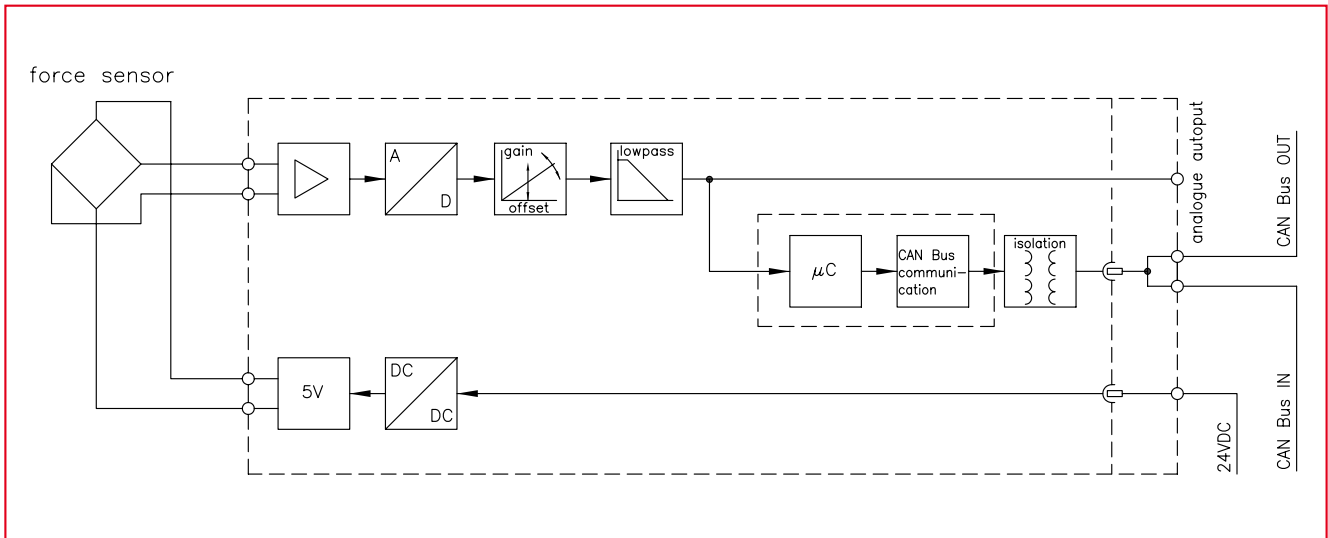
● EMGZ 480

The digital tension measuring amplifiers EMGZ 480 are suitable for tension measurement with all FMS force sensors. Parameter setting of the amplifier as well as data transmission is performed via an integrated CAN-BUS® interface using the Open CAN CiA-DS 301® protocol. EMGZ 480 amplifiers come in rugged, resilient aluminium housings. They were designed for dependable operation in the most demanding environments. The sealed housing is rated for a protection class of IP 67.

● Functional Description

The force measuring sensor gathers the tension force in the material and transmits the value as a mV signal to the electronic unit. There the mV signal is amplified and conditioned depending on the chosen configuration. Data is transferred via the CAN-BUS® to the CAN-BUS® master. The application dependent calculations are done by the CAN-BUS® master. The system allows a fast and very flexible operation.

EMGZ 480 • Block diagram



EMGZ 480 • Technical data

Number of Channels	1 channel for 1 or 2 force sensors @ 350 Ω
Sensor supply voltage	5.00 VDC
Input signal	0...9 mV (max. 12.5 mV)
Resolution A/D converter	± 8192 Digjt (14 Bit)
Max. measuring error	< 0.05 % FS
Processor cycle time	2 ms
Operation interface	CAN CiA-DS 301 Slave
Analogue output	1 x 0...10 VDC, min. impedance 1000 Ω
Power supply	24 VDC (18...36 VDC) / max. 50 mA
Temperature range	- 10...60 °C
Weight	ca. 300 g
Protection class	EMGZ 480 (IP 67); EMGZ 480.M16 (IP 40)

Option:

M16 = Version with Amphenol 5-pole connector for rotating applications

Order code (example):

EMGZ480.M16

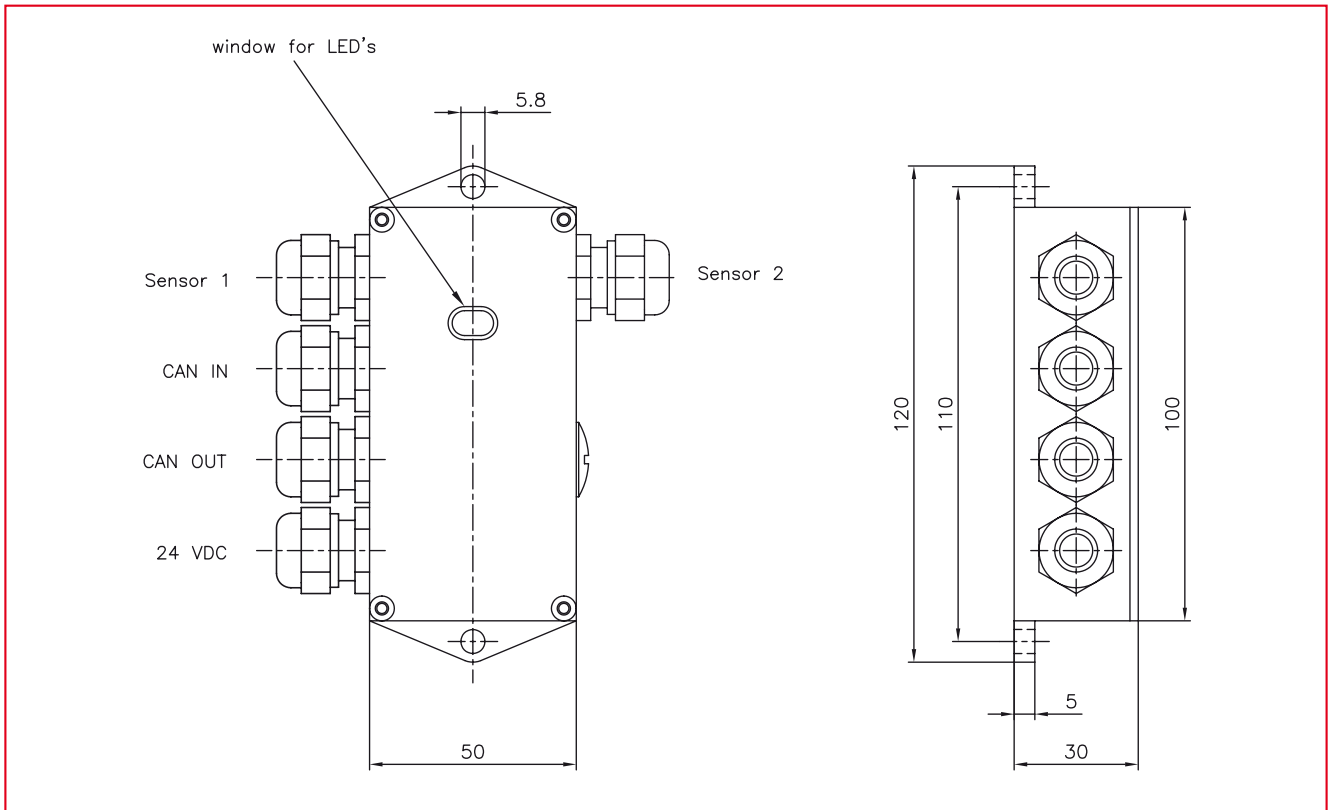
Sensor series ————

Connector option ————

Scope of delivery:

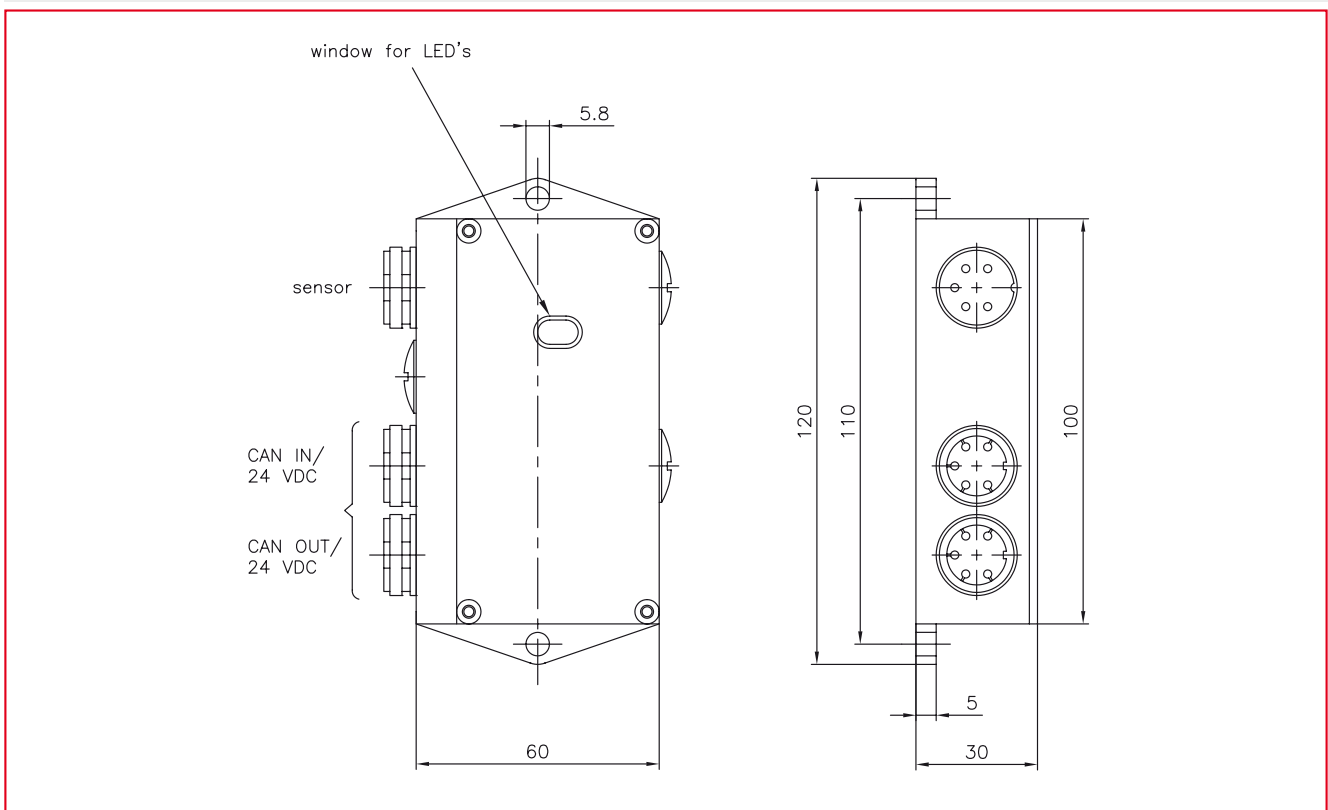
Force measuring amplifier,
operation manual

EMGZ 480 • Dimensions in mm



PG-Gland cable connector (protection class IP 67).

EMGZ 480.M16 • Dimensions in mm



EMGZ 480.M16 with connectors suited for rotating applications e.g. cage strander.

FMS' Product Portfolio and System Solutions



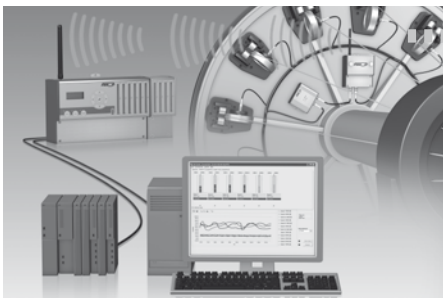
The product line **Force Sensors** provides products, solutions and related services that increase industrial productivity, energy efficiency and high quality output. Its force sensors, tension measuring rollers and pillow block based designs are of premium quality and ultra durable.



The product line **Electronics** facilitates tension monitoring, close loop tension control and web guiding systems. Key technologies include high-performance tension amplifiers and PID-controllers, as well as products to accurately and consistently control material position in continuously manufactured products.



The main focus of the **FMS Web Guiding business** is to provide customers with products and solutions for web detection and web positioning. Its steering frames, drives, controllers and material sensors provide an excellent coverage of the most important applications. The industries served include converting, printing, label processing and packaging.



RTM (Radio Transmitted Tension Monitoring) delivers system solutions across the cable production value chain. These innovative systems utilise force measuring rollers to capture the tension of individual wires or strands, and then securely transmit this data from the rotating to the static part of the machine. The systems are designed with fully compatible components. Production rates and product quality on rotating strand-handling machinery are significantly improved.



Special Application Fields facilitates solutions in **vacuum** applications or in potentially explosive atmospheres. A sophisticated range of interface options including systems such as **PROFINET, Ethernet/IP, Profibus** and **CAN-bus** provide quick and efficient integration of FMS products into the existing communication and control infrastructure of your company.

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