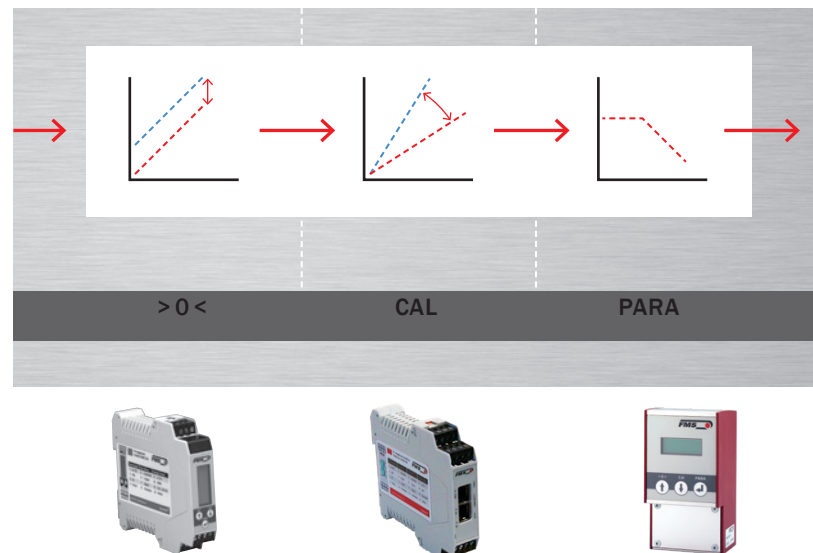


Overview

FMS Tension Control Measuring Amplifiers

- Full Range of Technologies**
 Analog, digital and use with fieldbus networks
- Easy Operation and Configuration**
 Optional via keypad, web browser, mobile device, or fieldbus protocol
- Versatile Installation Options**
 Available in DIN rail, panel, and wall mount versions depending on requirements
- Full compatibility with all FMS force sensors**
 Optimum performance with FMS force sensors and suitable in many cases for retrofit with other make force sensors



FMS Measuring Amplifiers

Dynamic application requirements, economic pressures and technological innovation have all influenced our developments to provide quality, cost effective solutions to industry. From the first analog amplifier (EMGZ306 which is still in production) to the newest models with full network compatibility, we have delivered tens of thousands of amplifiers. Each project has its own challenges, and with our wide range of products we are typically able to provide a solution. As a technological leader in the market, FMS strives to integrate the latest performance features into the products. The close cooperation we maintain with our customers, drove the development of our first digital amplifier models, and later led to the wide range of network compatible products now available.

Functional description

The mV signal from the sensor is amplified and processed using either analog or digital technology. The Offset >0< Function will compensate for roller weight, and the Calibration CAL Function will scale the amplifier to provide a signal that is proportional to an actual force value. The output signal from the device is then fed into a PLC or other process controller. The wide range of amplifier products ensures that the required features (e.g. communication format, display type, mounting configuration, IP rating, etc.) will be available for your project. References for FMS tension measuring amplifiers can be found in the Converting, Pulp & Paper, Metals, Textiles and Wire & Cable industries.

Series	EMGZ 306	EMGZ 310	EMGZ 310.ComACT	EMGZ 309	EMGZ 321	EMGZ 491.PNET	EMGZ 492.PNET	EMGZ 491.EIP	EMGZ 492.EIP	EMGZ 491.ECAT	EMGZ 492.ECAT	EMGZ 474
Interface												
Versions for DIN rail mount												
Type	EMGZ 306	EMGZ 310.R	EMGZ310.R.ComACT	EMGZ 309.R	EMGZ 321.R	EMGZ 491.R.PNET	EMGZ 492.R.PNET	EMGZ 491.R.EIP	EMGZ 492.R.EIP	EMGZ 491.R.ECAT	EMGZ 492.R.ECAT	EMGZ 474
IP protection rating	IP 20	IP 20	IP 20	IP 50	IP 40	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Housing Wall mount												
Type	EMGZ 307		EMGZ 310.W.ComACT	EMGZ 309.W	EMGZ 321.W	EMGZ 491.W.PNET	EMGZ 492.W.PNET	EMGZ 491.W.EIP	EMGZ 492.W.EIP	EMGZ 491.W.ECAT	EMGZ 492.W.ECAT	EMGZ 473.W
IP protection rating	IP 67		IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 67
Housing Panel mount												
Type				EMGZ 309.S	EMGZ 321.S							
IP protection rate				IP 50	IP 50							
Input												
Number of channels	1	1	1	1	2	1	2	1	2	1	2	1
Maximum number of force sensors	2	2	2	2	4	2	4	2	4	2	4	2
Digital input	-	-	-	-	2	-	-	-	-	-	-	-
Output												
Voltage output (VDC)	- 10 to + 10	- 10 to + 10	-10 to + 10	0 to + 10	2 x 0 to + 10	0 to + 10	0 to + 10	0 to + 10	0 to + 10	0 to + 10	0 to + 10	-
Current output (mA)	0/4 to 20	0/4 to 20	0/4 to 20	0/4 to 20	0/4 to 20	-	-	-	-	-	-	-
Relay output	-	-	-	-	2	-	-	-	-	-	-	-
Operation and Display												
Digital display	-	●	●	●	●	-	-	-	-	-	-	-
Configuration on device	Potentiometer	Keypad	Keypad	Keypad	Keypad	-	-	-	-	-	-	-
Configuration via web browser	-	-	-	●	●	●	●	●	●	-	-	-
Operation and Display via FMS ComACT™ App	-	-	●	-	-	-	-	-	-	-	-	-
Performance												
Cycle time (ms)	analog	1	1	2	2	1	1	1	1	1	1	2
Options												
.V05	-	●	●	-	-	●	●	●	●	●	●	-

Measuring Amplifiers : Technical data	
Temperature range	0 to 50°C (32 to 122°F)
Power supply	24 VDC (18 to 36 VDC)
Excitation voltage to force sensors	5 VDC, except EMGZ 473/474 with 4 VDC
Status LED	Power present

Measuring Amplifiers : Options	
.V05	Sensor feedback signal ± 2.5 mV

OVERVIEW

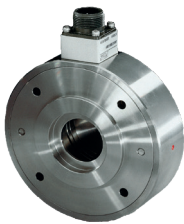
FMS Tension Control | Measuring Amplifiers

EMGZ491-Series : Typical Application

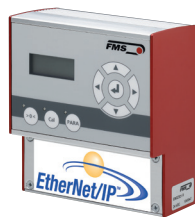


Weitere Produkte : Tension Control

Force Sensors



Tension Controllers



ATEX



About us

FMS Force Measuring Systems AG is the market leader in the field of web tension measurement, control and specialist for web guiding solutions. For the wire industry we are the only manufacturer offering a complete range of technologies for force measurement, data processing and radio transmission of signals.

Our in house developed products are used in the manufacturing industry, converting, metals, paper, textiles, as well as in cable and wire rope production. Utilising the latest technology, high quality components and a firm understanding of customer applications, FMS supports customers worldwide in the effort to maximize the productivity of their machines. Since 1993, our highly qualified employees have been creating high-end solutions for machine builders and plant operators. As an owner-managed company, we pride ourselves on being personal and approachable with the ability to make decisive moves fast.

World Headquarters: FMS Force Measuring Systems AG

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