

CMGZ 309.EIP Tension Controller with EtherNet/IP Interface

Integrated EtherNet/IP Field Bus

Straightforward integration in Ethernet network, possibility of real time control over the field bus

Configurable for brake and drive applications, for unwind and rewind stands

One controller can handle all functions

3 housing / mounting options

DIN Rail, Wall Mount (IP 65), and panel mount



● CMGZ 309.EIP Series

CMGZ 309.EIP tension controllers are an innovative enhancement of the successful CMGZ 309 series. They are available with a built-in field bus based on EtherNet/IP technology (CIP Common Industrial Protocol IEC 61158).

The EtherNet/IP bus offers data transfer with cycle times of down to 2 ms.

The CMGZ 309.EIP series responds to a broad range of missions. Its field of application is in production lines where moving web products are manufactured, processed or finished.

The EIP interface provides an efficient integration and configuration of the controller in a Ethernet network.

● Functional Description

Design und functionality of the CMGZ 309.EIP series is optimised for precise close loop tension control.

It offers selectable control of unwind brake or drive, intermediate drive, or rewinding drive.

Most advanced software algorithms are used for signal processing and controlling tasks. This results in an excellent long term temperature stability and control performance. Its enhanced connectivity, high data speed capability, digital signal filtering, automatic offset calculation, built in taper tension option and automatic start-up ramping function along with a lot of other features creates a very powerful and user-friendly PID tension control system.

The CMGZ 309.EIP series solves even your most demanding control tasks.

• Configuration “Unwind Brake”

Suitable for any electric or pneumatic brakes. As an option a diameter signal can be fed to the controller. The control parameters are continuously adapted to the changing diameter improving the control characteristics of the system considerably.

• Configuration “Unwind Drive”

For torque or speed controlled drives. As an option for torque controlled drives in the “Unwind Drive” configuration also a diameter signal can be fed to the controller improving the control characteristics.

• Configuration “Rewind Drive”

For torque or speed controlled drives a taper function is available. For torque controlled drives a diameter signal can be fed to the controller improving the control characteristics. For this configuration a Taper-Functions is available.

• Configuration “Intermediate Drive”

For torque or speed controlled drives. As an option for speed controlled drives a line speed signal can be fed to the controller. The output values are calculated by the controller and overlaid onto the line speed.

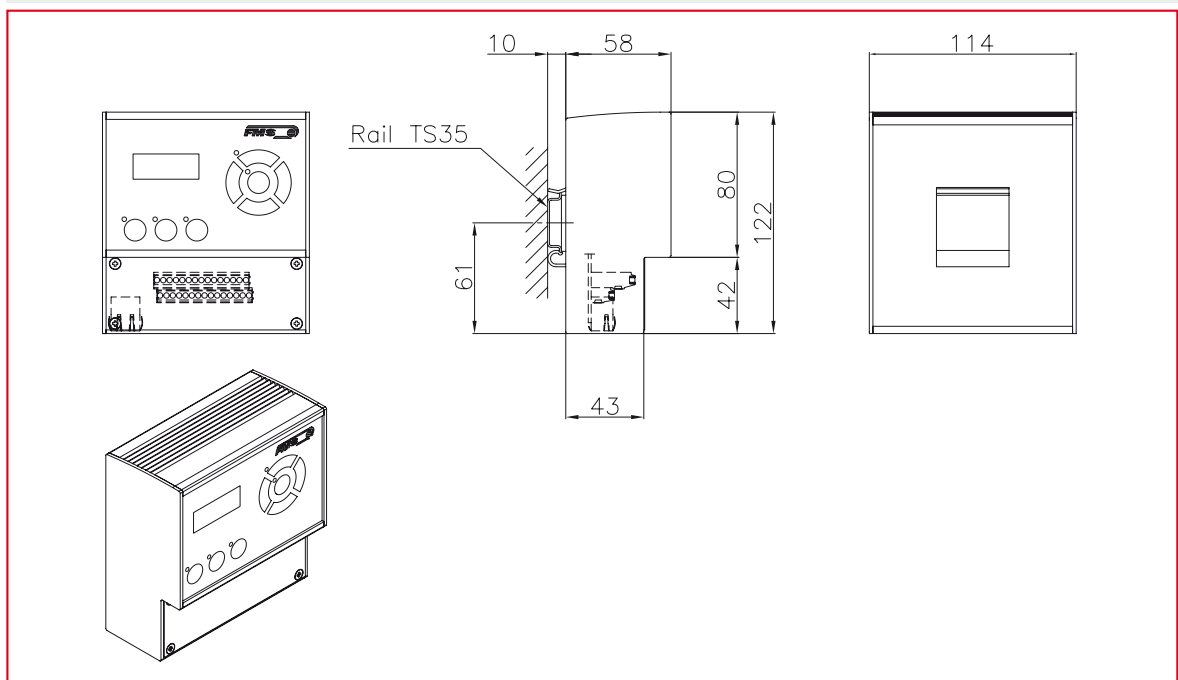
CMGZ 309.EIP Series • Technical Data

Type	CMGZ 309.R	CMGZ 309.S	CMGZ 309.W
Number of channels	1 channel for 1 or 2 sensors with strain gauges @ 350 Ω		
Sensor supply	5.0 VDC, max. 60 mA; high stability		
Input signal range	0...9 mV (max. 12.5 mV)		
Resolution A/D-converter	± 8192 Digit (14 Bit)		
Measuring error	< 0.05 %		
Processor cycle time	1 ms		
Operation	3 buttons, 5 buttons wind rose, LCD-display 2 x 8 characters (size 5 mm)		
Operation interface	EtherNet/IP (CIP Common Industrial Protocol, Standard IEC 61158)		
Temperature range	-10...60 °C (14...140 °F)		
Power supply	24 VDC (18...36 VDC) / 10 W (max. 0.5 A) galvanically isolated supply		
Options	-		
Protection class	IP 40	-	IP 65
Weight	0.57 kg	0.40 kg	0.72 kg

CMGZ 309.EIP Series • Input / Output Configuration

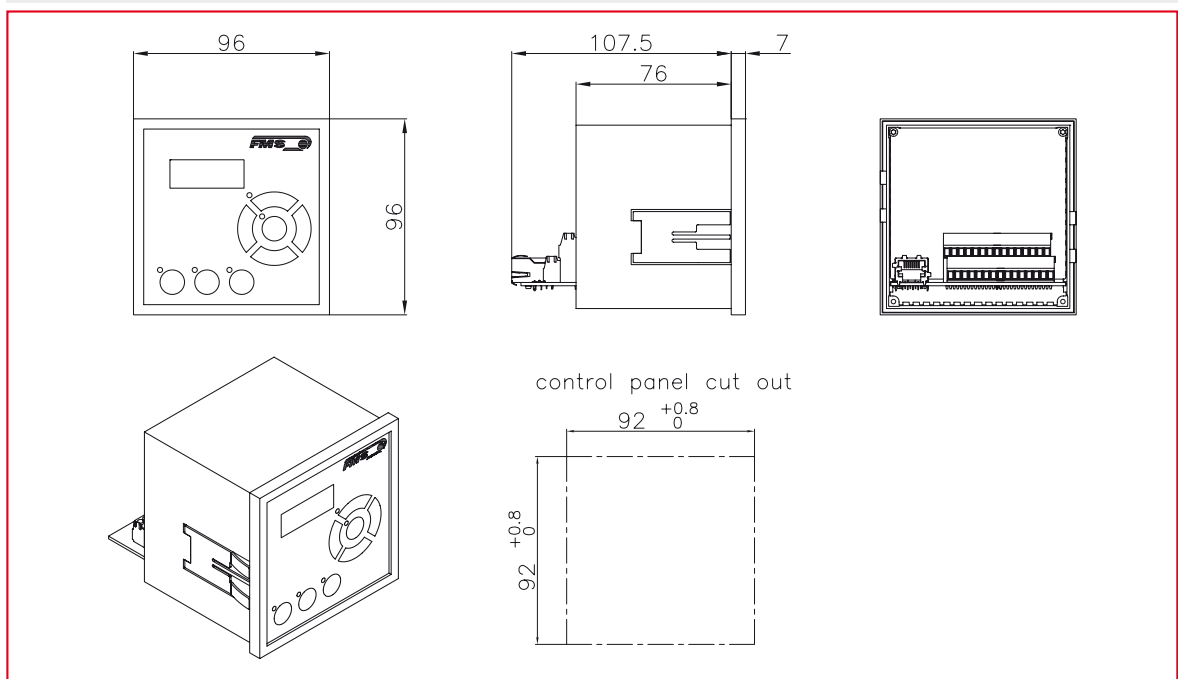
Analogue input 1	1 or 2 sensors with strain gauges @ 350 Ω (0...9 mV, max. 12.5 mV)
Analogue input 2	Reference potentiometer (0...10 VDC)
Analogue input 3	Diameter or line speed overlay (0...10 VDC)
Analogue output 1	Controller output signal (± 10 VDC, 0...10 VDC, 0/4...20 mA)
Analogue output 2	Feedback value output (0...10 VDC)
Digital inputs	2 inputs @ 24 VDC, galvanically isolated
Relay outputs	2 outputs (DC: 220 V / 2 A / 60 W; AC: 250 V / 2 A / 62.5 VA)

CMGZ 309.R.EIP Rail Mount Housing • Dimensions in mm



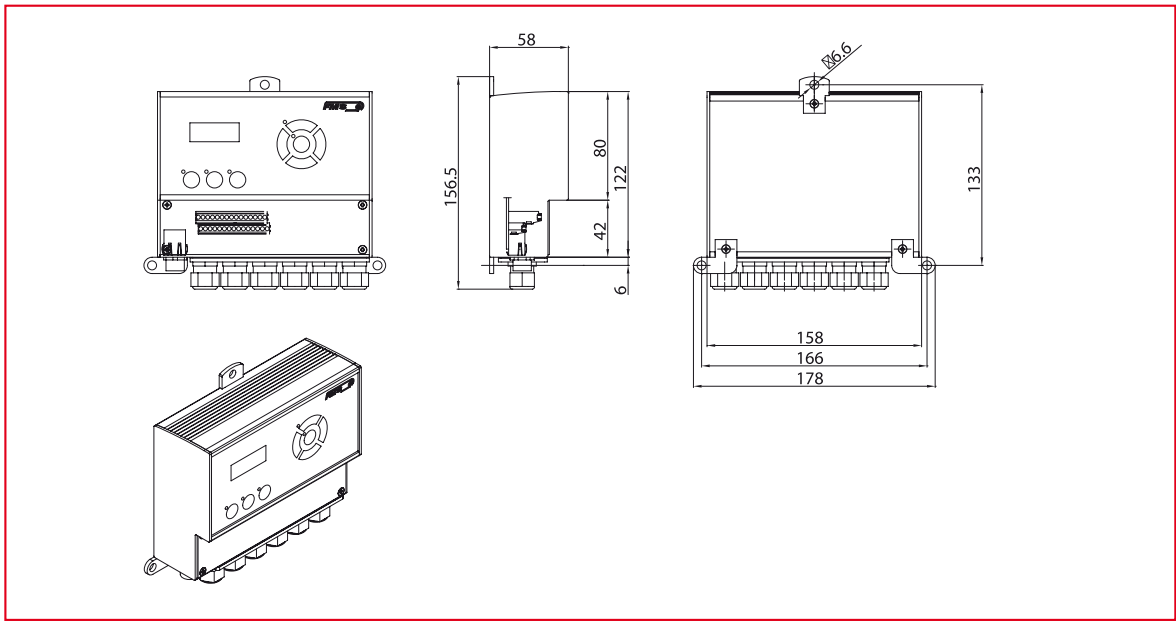
Wiring is realised via cable terminals; EtherNet connection: RJ-45 connector.

CMGZ 309.S.EIP Panel Mount Housing • Dimensions in mm



Wiring is realised via cable terminals; EtherNet connection: RJ-45 connector.

CMGZ309.W.EIP Wall Mount Housing • Dimensions in mm



With PG-Gland cable connector; EtherNet: M 12 4-Pol D-coded connector (IP 65).

World Headquarters:

FMS Force Measuring Systems AG
 Aspstrasse 6
 8154 Oberglatt (Switzerland)
 Phone + 41 44 852 80 80
 Fax + 41 44 850 60 06
 info@fms-technology.com

FMS USA, Inc.
 2155 Stonington Avenue
 Suite 119
 Hoffman Estates, IL 60169
 Phone + 1 847 519 4400
 Fax + 1 847 519 4401
 fmsusa@fms-technology.com

FMS UK
 Highfield, Atch Lench Road
 Church Lench
 Evesham WR 11 4UG
 Phone + 44 1386 871023
 Fax + 44 1386 871021
 fmsuk@fms-technology.com

FMS Italy
 Via Baranzate 67
 20026 Novate Milanese
 Phone + 39 02 39487035
 Fax + 39 02 39487035
 fmsit@fms-technology.com