

General Product Description

Digital Controller Modul DCM

Special Features

- Two independent strain gauge amplifiers
- 6 analog inputs (± 10 V)
- 4 analog outputs with 16-bit resolution
- 2 Relay outputs with short reaction time (max. 1 ms)
- Low cycle time for high speed applications (520 μ s)
- Flexible designation of inputs and outputs
- 8-digit digital display
- Power supply and signal outputs galvanically isolated



Scope of supply

- Amplifier in DIN-Rail Mount Enclosure
- Plug-in terminal blocks
- Standard (Option U): 4 voltage outputs, no current output

Versions

- Option C: 4 voltage outputs, 1 current output, 4...20 mA (for individual use)
- Option CC: 4 voltage outputs, 2 current outputs 4...20 mA (fixed wired)
- Option P: In combination with preamplifier PAM2
- Option V: Customer-specific preferences

Additional Accessories

- Option J: Strain gauge supply voltage 5 V DC
- Option T: Front panel mounting

Ordering Data: **DCM-C**

options
type

Application

The DCM module is a digital multi-function amplifier for two strain gauge sensors and designed for processing of additional analog signals. The system can be used for various tasks occurring in the area of force and web tension measurement. The inputs and outputs can be flexibly assigned to the signals. Process signals are captured and various control signals are generated.

The DCM has been designed for DIN-rail mounting or mounting to plate assembly in electrical cabinets. Front panel mounting is available as an option.

Numerous uses such as:

- 2-channel amplifier
- Amplifier with the following adjustment options
 - External zero adjust
 - Limit force monitoring
 - Press tonnage monitoring
 - Wrap angle correction
 - XY-sensor signal analysis
- Closed loop controller with various programmable control modes
- Adder for several voltage signals

Composition

- DIN-Rail Mount Enclosure with integrated 8-digit display
- Operator panel with 6 keys
- Plug-in terminal blocks
- 6 Status LED's

Dimensions

Incl. terminal blocks Length × Height × Depth
in mm: 100 × 110 × 105



Technical Data		
Amplifier		
Strain gauge excitation supply	Voltage	10 V DC
	Option J	5 V DC
	max. current	160 mA
Zero adjust compensation voltage		entire input voltage range
Total amplification	Adjustment range	100...30.000 V/V
	Standard factory adjustment	667 V/V
Signal outputs	Voltage	- 10...0...+ 10 V
	min. load resistance	5 k Ω
	Signal rising time (10...90 %)	from 1,5 ms to 9999 ms
Voltage/Current Converter		
Signal input	Voltage (V_6)	0...+ 10 V
Signal output	Current (I_1)	4...20 mA
	max. load resistance	600 Ω
Controller		
Signal inputs	6 Voltage inputs	- 10...0...+ 10 V
	4 digital inputs	optocoupler 24 V DC
Signal outputs	4 voltage outputs	- 10...0...+ 10 V
	min. load resistance	5 k Ω
	Reference voltage	10 V \pm 0,02 %
	2 digital outputs	Reed Relay SPNO
Temperature range		0...60 $^{\circ}$ C
Terminal cross section		AWG 22-12
Standard enclosure protection		IP 20
Power supply voltage *)	Voltage	24 V DC, \pm 10 %
	Current consumption (at 24 V):	approx. 200 mA

*) The power supply voltage must be grounded. In the power supply loop the current of the supply voltage should not exceed 500 mA.