

### SSI DISPLAY MODULES MOD 14

Anzeigemodule mit programmierbaren Ausgängen für absolute Winkelcodierer mit SSI-Schnittstelle

*Module avec sortie programmer par Codeur optique absolu avec SSI-interface*

Display modules with programmable outputs for Absolut-Encoder with SSI-Interface



**MOD 14 - a programmable multifunctional display module for absolute encoders with SSI-Interface. Single-turn or multi-turn encoders with a resolution up to 25 bit and Gray-Code are suitable for operation. Display parameters are fully programmable. MOD 14 has the usual standardfunction of a display modul, but additional four control outputs, which can be programmed separately as comparator, cam switch or pulse switch. Easy programming by four front-panel keys.**

#### SSI-Interface

For operation of absolute single- or multiturn-encoders with resolution up to 25 bit with serial SSI-Interface .

#### Display-Scaling

Scale factor, adjustment values and counting direction are free programmable.

#### Control-Inputs

Optically insulated control-inputs for electronic adjustment and storage of indicated value.

#### Control-Outputs

4 optically insulated control-outputs, which can be programmed separately as a comparator, cam switch or pulse switch.

#### Analogue-Outputs

2 optically insulated programmable analogue-outputs with resolution of 14 bit.

#### Parallel-Interface

Optically insulated in- and outputs for parallel data in/out in Binary-, Gray or BCD-code.

Through parallel inputs values for electronic adjustments or set off against the indicated value can be read in. Parallel outputs are useful for data output of the indicated value.

#### RS 485-Interface

Serial interface RS 485 for external control of all function of display modules MOD 14.

#### Product description MOD 14

	SSI-Interface	Display-Scaling	Control-Inputs	Control-Outputs	Analogue-Outputs	Parallel-Interface	RS 485-Interface
MOD 14-1				•	•	•	•
MOD 14-2				•	•	•	•
MOD 14-3		•		•	•	•	•
MOD 14-4		•	•	•	•	•	•
MOD 14-5	•			•	•	•	•
MOD 14-6	•		•	•	•	•	•
MOD 14-7	•	•		•	•	•	•
MOD 14-8	•	•	•	•	•	•	•

## Technical Data

Supply Voltage	+10 ... 35 VDC
Power Consumption	<250 mA (<150 mA at 24 VDC)
Cycle time	5 ms
Display range	-9999999 ... 99999999
Display	8 digit 7-segment red LED
	14 mm high
Datamemory	EEPROM
Operating temperature	0 ... +50°C
Connections	Terminal block, max. 1,5 mm <sup>2</sup>
	Sub-D-Connector
Weight	< 0,6 kg
Protection	front IP 50
	with protective cover IP 54
	rear IP 20

## SSI-Interface

Clock frequency	125 kHz
Clock-Output	RS485
Clock-Input	Optocoupler RS485

## Control-Inputs

Circuit	Optocoupler
Input-Level Low	0 ... +5 VDC
Input-Level High	+10 ... 35 VDC
Input-Resistance	1,8 kΩ at 24 VDC

## Control-Outputs

Circuit	Optocoupler
Power supply	max. +35 VDC
Output -voltage	min. Vcc - 3,5 V at 50 mA
Output-current	max. 50 mA

## Analogue Voltage-Output

Voltage Range	-10 ... +10 VDC
Resolution	1,22 mV = 14 Bit
Offset-Error	max. 1 mV at 25°C
Output-current	max. 10 mA, short-circuit proof

## Analogue Current-Output

Current Range	-20 ... +20 mA
Resolution	2,44 μA = 14 Bit
Offset-Error	max. 2 μA at 25°C
Burden	max. 550 Ω

## Parallel-Inputs

Circuit	Optocoupler
Input-Level Low	0 ... +5 VDC
Input-Level High	+10 ... 35 VDC
Input-Resistance	6,8 kΩ at 24 VDC

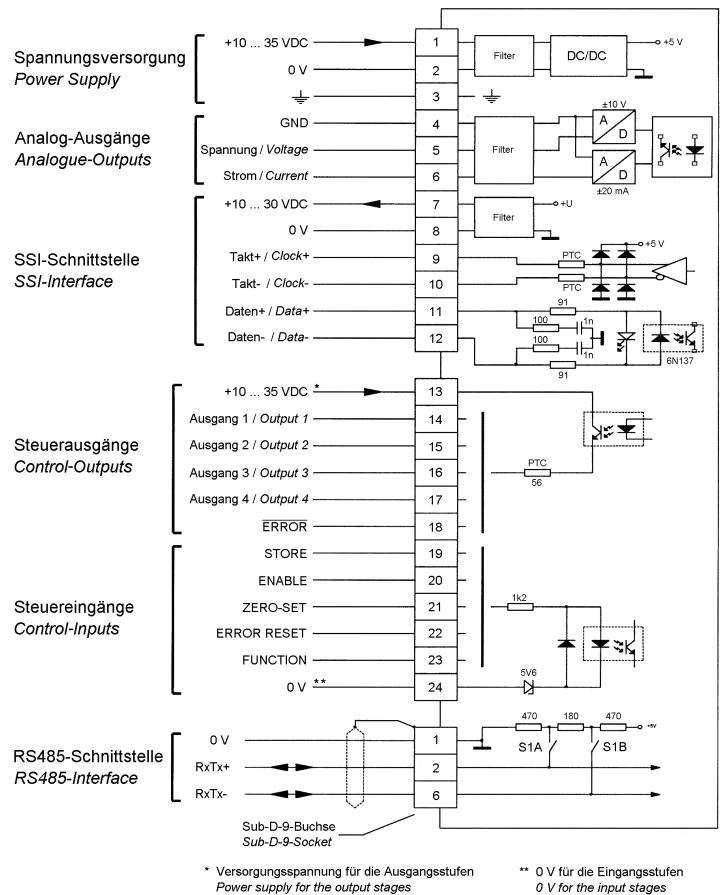
## Parallel-Outputs

Circuit	Optocoupler, NPN-Transistor
	Open-Emitter with PTC
Supply Voltage	max. +35 VDC
Output Voltage	min. Vcc - 3,5 V at 50 mA
Output Current	max. 50 mA

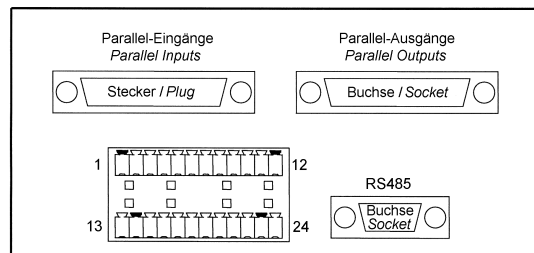
## RS 485-Interface

Circuit	RS485
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## Electrical connection diagram



## Electrical connection - Rear panel



## Outline drawing

