

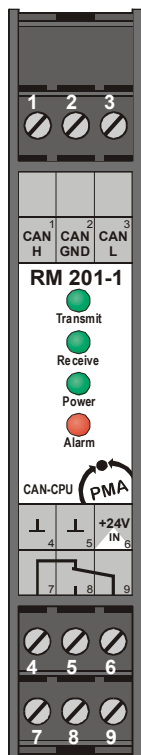


# CANopen Coupler Module RM 201-1

## Safety Instructions

<b>ESD !</b> <ul style="list-style-type: none"> <li>contains electrostatically sensitive components</li> <li>Original packing protects against electrostatic discharge (ESD)</li> <li>Transporting only in the original packing</li> <li>during mounting rules for protection against ESD must be followed</li> </ul>	<b>Connections</b> <ul style="list-style-type: none"> <li>Wiring must conform to local standards (e.g. VDE 0100 in Germany) !</li> <li>Input leads must be kept separate from signal and mains leads !</li> <li>The protective earth must be connected to the relevant terminal (in the instrument carrier) !</li> <li>The cable screening must be connected to the terminal for grounded measurement !</li> <li>Usage of twisted and screened input leads prevent stray electric interference !</li> <li>Connections must be made according to the connecting diagrams !</li> </ul>	<b>Maintenance / Repair</b> <p>Instrument needs no particular maintenance.</p> <p> When opening the instrument live parts or terminals can be exposed. Before carrying out the instrument must be disconnected from all voltage sources. The instrument contains electrostatically sensitive components. The following work may be carried out only by trained, authorized persons.</p> <p><b>Fuse tripped:</b></p> <ul style="list-style-type: none"> <li>Cause must be determined and removed !</li> <li>Only fuses of the same type and current rating as the original fuse must be used.</li> <li>Using repaired fuses or short-circuiting the fuse socket is inadmissible !</li> </ul>
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## Pin Assignment



Pin	Assignment	
	NC	
	NC	
	NC	
1	CAN H	CAN-Bus
2	CAN GND	
3	CAN L	
4	GND	Power supply
5	GND	
6	+24 V IN	
7	Alarm relay	
8		
9		
Art.-No.	9407-738-20111	

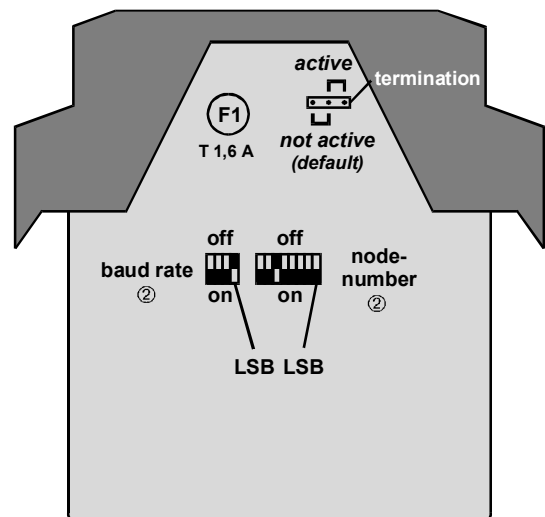
## DIP switches / Jumper

### 4 Bit DIP switch

DIP ①	Baud rate
0000	10 kBit
0001	20 kBit ②
0010	50 kBit
0011	100 kBit
0100	125 kBit
0101	250 kBit
0110	500 kBit
0111	800 kBit
1000	1000 kBit
1001	Auto Scan
4321	Switch-Pos.

### 8 Bit DIP switch


DIP ①	Node-No.
0000 0000	invalid
0000 0001	1
0000 0010	2
0000 0011	3
...	...
0010 0000	32 ②
...	...
0111 1110	126
0111 1111	127
8765 4321	Switch-Pos.



① The positions of the switches are shown in binary-code. The number at the right position corresponds to the LSB (DIP-switch-position 1), the number at the left position corresponds to the MSB (DIP-switch-position 4 or 8). To use the default-mapping of the modular fieldbus-system in full effect a node number  $\leq 42$  should be chosen.

② Factory settings

## Technical Data RM 201-1

<b>Application:</b>	Central unit of the modular fieldbus system The coupler supports the strain gage modul RM 225 instead of temperature modules.
<b>Power supply:</b>	+24 V DC ( $\pm 10\%$ ), max. power consumption 1750 mW (only RM 201-1) The GND ( $\perp$ ) of the 24 V DC supply has to be connected to the protective earth(PE). The module supplies all I/O modules with the required voltages; the max. current consumption is 1.5 A (depending on the I/O modules used).
<b>Microprocessor:</b>	SAB-C505C with 20 MHz
<b>Memory:</b>	<ul style="list-style-type: none"><li>● 32 kByte static RAM</li><li>● 64 kByte EPROM</li><li>● 8 kByte EEPROM</li></ul>
<b>CAN-Bus:</b>	<ul style="list-style-type: none"><li>● Full-CAN-Controller according to CAN-specification V2.0 A (CAN-specification V2.0 B on request)</li><li>● physical connection according to ISO 11898</li><li>● galvanic isolation via High-Speed-Opto-coupler</li><li>● Transmission data rate: 10, 20, 50, 100, 125, 250, 500, 800 and 1000 kBaud</li><li>● automatic baud rate scanning</li><li>● Range of node numbers: 0...127 (1...42 in use of default mappings)</li><li>● switchable termination resistor</li><li>● Process-Data-Objects (PDOs):<ul style="list-style-type: none"><li>- Receive <math>\leq 5</math></li><li>- Transmit <math>\leq 10</math>, max. 5 requestable per 'Remote Transmit Request'</li></ul></li></ul>
<b>CAN-Protocol:</b>	The device operates according to the regulations DS301 and parts of DSP404 passed by the CiA as a CANopen slave.
<b>Protection:</b>	The noise immunity of the CAN bus is considerably improved by a current-compensated choke. The power supply connection is protected against external interferences such as voltage peaks by different EMC sources.
<b>Alarm output:</b>	The module has an alarm relay output to release for example an emergency stop in case of defined events. These events can be parameterized via CANopen. Alarm relay: max. working voltage for a safe protective insulation according to EN61010-1 with pollution degree 2 and overvoltage category II: 150 V change-over-contact rating: AC: Pmax = 750 W, 5 A DC: Pmax = 120 W, 120 V, 5 A
<b>LED displays:</b>	<ul style="list-style-type: none"><li>● 1x 'Transmit' (yellow): transmission of a message via CANopen</li><li>● 1x 'Receive' (yellow): receipt of a CANopen message</li><li>● 1x 'Power' (green): state of the supply voltage</li><li>● 1x 'Alarm' (red): state of the alarm relay</li></ul>
<b>Galvanic isolation:</b>	The power supply, CAN bus and logic areas are galvanically isolated from each other (isolation voltage 500 V DC).
<b>Temperature range:</b>	<ul style="list-style-type: none"><li>● Storage temperature: -20 ... +70 °C</li><li>● Ambient temperature: 0 ... +50 °C</li></ul>
<b>Humidity:</b>	$\leq 75\%$ rel. humidity, no condensation
<b>Shock sensitivity:</b>	DIN 40046 IEC68-2-69
<b>EMC:</b>	<ul style="list-style-type: none"><li>● DIN EN 50081 Part 2</li><li>● DIN EN 50082 Part 2</li><li>● DIN EN 61326</li></ul> 
<b>Electrical connections:</b>	screw-/plug-in-terminals, line cross-section max. 2.5 mm <sup>2</sup>
<b>Class of protection:</b>	IP 20
<b>Dimensions:</b>	99 x 17.5 x 114.5 mm (h x w x d)
<b>Weight:</b>	100 g
<b>Housing:</b>	Polyamid PA 6.6, combustibility class V0 according to UL 94
<b>Assembly:</b>	plugged-in and locked in front of base module
<b>Usage position:</b>	vertical

Subject to technical alterations !