

DADCM-08 | DIN RAIL MOUNTED ANALOGUE TO DIGITAL (MODBUS RTU) CONVERTER

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS					
		Data type	Description	Raw data range	Values
1	Analogue / digital sensor type (Ai1)	unsigned integer	Analogue / digital sensor type (Ai1)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM
2	Analogue / digital input level (Ai1)	signed integer	Analogue / digital input level (Ai1)	0–1.000	300 = 3,0 VDC = 6 mA = 30 %
3	PWM frequency (Ai1)	unsigned integer	PWM frequency (Ai1) (If Ai1 type is PWM)	1.000–5.000	1.000 = 1.000 Hz
4	Analogue / digital sensor type (Ai2)	unsigned integer	Analogue / digital sensor type (Ai2)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM
5	Analogue / digital input level (Ai2)	signed integer	Analogue / digital input level (Ai2)	0–1.000	300 = 3,0 VDC = 6 mA = 30 %
6	PWM frequency (Ai2)	unsigned integer	PWM frequency (Ai2) (If Ai2 type is PWM)	1.000–5.000	1.000 = 1.000 Hz
7	Analogue / digital sensor type (Ai3)	unsigned integer	Analogue / digital sensor type (Ai3)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM
8	Analogue / digital input level (Ai3)	signed integer	Analogue / digital input level (Ai3)	0–1.000	300 = 3,0 VDC = 6 mA = 30 %
9	PWM frequency (Ai3)	unsigned integer	PWM frequency (Ai3) (If Ai3 type is PWM)	1.000–5.000	1.000 = 1.000 Hz
10	Analogue / digital sensor type (Ai4)	unsigned integer	Analogue / digital sensor type (Ai4)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM

INPUT REGISTERS					
		Data type	Description	Raw data range	Values
11	Analogue / digital input level (Ai4)	signed integer	Analogue / digital input level (Ai4)	0–1.000	300 = 3,0 VDC = 6 mA = 30 %
12	PWM frequency (Ai4)	unsigned integer	PWM frequency (Ai4) (If Ai4 type is PWM)	1.000 - 5.000	1.000 = 1.000 Hz
13	Analogue sensor type (Ai5)		Analogue sensor type (Ai5)	0–2	0 = Not in use 1 = Voltage 2 = Current
14	Analogue input level (Ai5)	signed integer	Analogue input level (Ai5)	0–1.000	300 = 3,0 VDC = 6 mA
15			Reserved. Returns 0		
16	Analogue sensor type (Ai6)	unsigned integer	Analogue sensor type (Ai6)	0–2	0 = Not in use 1 = Voltage 2 = Current
17	Analogue input level (Ai6)	signed integer	Analogue input level (Ai6)	0–1.000	300 = 3,0 VDC = 6 mA
18			Reserved. Returns 0		
19	Analogue sensor type (Ai7)	unsigned integer	Analogue sensor type (Ai7)	0 - 2	0 = Not in use 1 = Voltage 2 = Current
20	Analogue input level (Ai7)	signed integer	Analogue input level (Ai7)	0–1.000	300 = 3,0 VDC = 6 mA
21			Reserved. Returns 0		

INPUT REGISTERS						
		Data type	Description	Raw data range	Values	
22	Analogue sensor type (Ai8)	unsigned integer	Analogue sensor type (Ai8)	0–2	0 = Not in use 1 = Voltage 2 = Current	
23	Analogue input level (Ai8)	signed integer	Analogue input level (Ai8)	0–1.000	300 = 3,0 VDC = 6 mA	
24–30			Reserved. Return 0			

Note: The input registers can be read via the Modbus command: "Read input registers".

HOLDING REGISTERS						
		Data type	Description	Raw data range	Values	Factory default values
1	Device slave address	unsigned integer	Modbus device address	1–247		1
2	Modbus baud rate	unsigned integer	Modbus communication baud rate	0–6	0 = 4.800 3 = 38.400 6 = 230.400 1 = 9.600 4 = 57.600 2 = 19.200 5 = 115.200	2
3	Modbus parity	unsigned integer	Parity check mode	0–2	0 = None 1 = Even 2 = Odd	1
4	Device type	unsigned integer	Device type. Read only	2.401	DADCM/08 = 2.401	
5	HW version	unsigned integer	Hardware version of the device. Read only	XXXX	0x0100 = HW version 1.0	
6	FW version	unsigned integer	Firmware version of the device. Read only	XXXX	0x0100 = FW version 1.0	
7–10			Reserved, return 0			

HOLDING REGISTERS						
		Data type	Description	Raw data range	Values	Factory default values
11	Analogue / Digital input type (Ai1)	unsigned integer	Disable or select analogue / digital input type for (Ai1)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM	1
12	Analogue / Digital input type (Ai2)	unsigned integer	Disable or select analogue / digital input type for (Ai2)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM	1
13	Analogue / Digital input type (Ai3)	unsigned integer	Disable or select analogue / digital input type for (Ai3)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM	1
14	Analogue / Digital input type (Ai4)	unsigned integer	Disable or select analogue / digital input type for (Ai4)	0–3	0 = Not in use 1 = Voltage 2 = Current 3 = PWM	1
15–18			Reserved. Return 0			
19	Modbus registers reset	unsigned integer	Resets Modbus Holding registers to default values. When finished this register is automatically reset to '0'	0, 1	0 = Idle 1 = Reset Modbus registers	1
20	Modbus network resistor termination (NBT)	unsigned integer	Set device as end device of the line / or not by connecting NBT	0, 1	0 = NBT disconnected 1 = NBT connected	0

Note: The holding registers can be managed via the following Modbus commands: “Read Holding Registers”, “Write Single Register” or “Write Multiple Registers”.

The free Sentera configuration and monitoring software 3SModbus can be downloaded via: <https://www.sentera.eu/en/3SMCenter>