

# VFSC9 | ELECTRONIC SPEED CONTROLLER

## Modbus register map



## MODBUS REGISTER MAP

### INPUT REGISTERS

		Data type	Description	Raw Data Range	Values
30001	Output value	unsigned int.	Output value (PWM duty cycle) in %	0–90	80 = 80%
30002	Minimum value of PWM duty cycle	unsigned int.	Minimum value of PWM duty cycle in %	20–65	145 = 45 %
30003	Maximum value of PWM duty cycle	unsigned int.	Maximum value of PWM duty cycle in %	70–90	80 = 80%h
30004	Input mode	unsigned int.	Active input	1–2	1 = Analog input 2 = External potentiometer input
30005	Work mode	unsigned int.	Current work mode	0–2	0 = STOP 1 = RUN 2 = ALARM / TK

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
40001	Device slave address	unsigned int.	Modbus device address	1–247		1
40002	Modbus baud rate	unsigned int.	Modbus communication baud rate	0–5	0 = 4.800 bps 1 = 9.600 bps 2 = 19.200 bps 3 = 38.400 bps 4 = 57.600 bps 5 = 115.200 bps	2
40003	Modbus parity mode	unsigned int.	Parity check mode	0 = 8N1 1 = 8E1 2 = 8O1	0 = None 1 = Even 2 = Odd	1
40004	Device type	unsigned int.	Device type (Read only)	3012	3012 = VFSC9-XX	
40005	HW version	unsigned int.	Hardware version of the device (Read only)	XXXX	0 x 0100 = HW version 1.00	
40006	FW version	unsigned int.	Firmware version of the device (Read only)	XXXX	0 x 0200 = FW version 2.00	
40007		unsigned int.	Reserved, returns 0			
40008	Overwrite mode	unsigned int.	Overwrite mode selection	0–1	0 = Inactive 1 = Active	0
40009			Reserved, returns 0			

HOLDING REGISTERS						
		Data type	Description	Raw Data Range	Values	Factory Default Values
40010	Modbus registers reset	unsigned int.	Resets all Modbus registers to default values (except registers 1–3)	0–1	0 = Idle 1 = Reset	0
40011	Minimum value of PWM duty cycle	unsigned int.	Sets minimum PWM duty cycle value in percentage	20–65	45 = 45% PWM	40
40012	Maximum value of PWM duty cycle	unsigned int.	Sets maximum PWM duty cycle value in percentage	70–90	80 = 80% PWM	90
40013	Input mode	unsigned int.	Selects active input	0–2	0 = Auto 1 = Analog input 2 = External potentiometer input	0
40014	Analog input mode	unsigned int.	Selects analog input mode	0–2	0 = Voltage mode (0–10 VDC) 1 = Current mode (0–20 mA) 2 = PWM mode (100%)	0
40015	Off level	unsigned int.	Sets OFF level value	0; 10–40	0 = Without Off level 10 = 10 % of input <input type="checkbox"/> ON	0
40016	Acceleration	unsigned int.	Sets acceleration speed	0–10	1 = minimum acceleration 10 = maximum acceleration	5
40017	Deceleration	unsigned int.	Sets deceleration speed	1–10	1 = minimum deceleration 10 = maximum deceleration	5
40018-40019			Reserved, return 0			
40020	Network bus terminator (NBT)	unsigned int.	Sets unit as first or last unit on the line by connecting the NBT resistor	1–1	0 = Disconnected (NBT open) 1 = Connected (NBT connected)	0
40021	Overwrite value	unsigned int.	PWM duty cycle value (Overwrite mode) in percentage	0; 20–90	50 = 50 % PWM	60

**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/eu/3SMCenter>