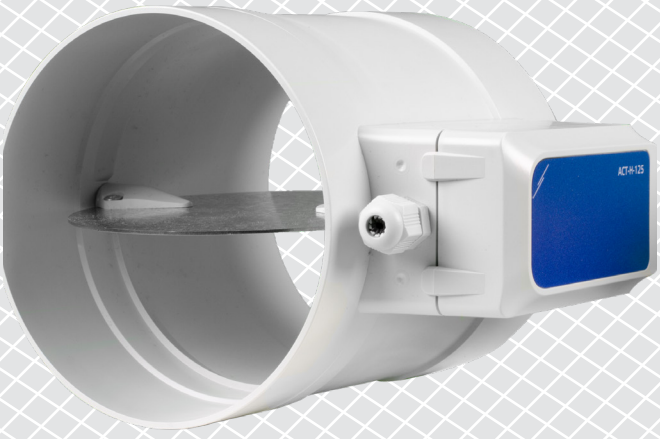
ACT-H-125 | CIRCULAR MOTORISED DAMPER

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS

		Data type	Description	Raw data range	Values
1	Damper position angle	unsigned integer	Actual damper position angle	0—900	900 = 90 °C
2	Analogue / modulating input type (Ai1)	unsigned integer	Analogue / modulation input type (Ai1)	1—3	1 = 0—10 VDC 2 = 0—20 mA 3 = PWM
3	Analogue / modulating input value	unsigned integer	Analogue / modulation input value	0—1.000	100 = 10 %
4	Damper position angle setpoint	unsigned integer	Starting position angle of the damper	0—900	900 = 90,0 °
5	Operating mode	unsigned integer	Operating mode: Standalone mode - damper position is set via analogue/modulating input 1 value - AI1 (0 % = 0 degree, 100 % = 90 degree). Modbus mode - damper position is set via holding register 14	0, 1	0 = Standalone 1 = Modbus Mode
6			Reserved, returns 0		
7	Zero position calibration status	unsigned integer	Indicates a zero position calibration status	0, 1	0 = OK 1 = Problem, zero position calibration recommended
8	Encoder status	unsigned integer	Indicates a problem in the encoder circuit	0, 1	0 = OK 1 = Encoder problem
9	Optical sensor status	unsigned integer	Indicates a problem in the optical sensor circuit	0, 1	0 = OK 1 = Optical sensor problem
10	Actuator status	unsigned integer	Indicates a failure in DC motor driver circuit	0, 1	0 = OK 1 = Problem

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 1 = 9.600 2 = 19.200 3 = 38.400 4 = 57.600 5 = 115.200 6 = 230.400	2
3	Modbus parity	unsigned integer	Parity check mode	0—2	0 = 8N1 1 = 8E1 2 = 8O1	1
4	Device type	unsigned integer	Device type. Read only	7.000	7.000 = ACT-H-125	
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			Reserved, returns 0			
8	Modbus safety timeout	unsigned integer	After time with no Modbus communication, damper position angle is set to minimum damper position angle (HR17)	0—60	0 = no timeout 60 = 60 minutes	0
9	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
10	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	0
11			Reserved, returns 0			
12	Operating mode	unsigned integer	Operating mode: Standalone mode - damper position is set via analogue / modulating input 1 value - AI1 (0 % = 0 degree, 100 % = 90 degrees). Modbus mode - damper position is set via holding register 14	0, 1	0 = Standalone 1 = Modbus Mode	0

HOLDING REGISTERS

		Data type	Description	Raw data range	Values	Factory default values
13	Analogue / modulating input type (Ai1)	unsigned integer	Select analogue / modulating input type for (Ai1) - (Available in Standalone Mode)	1—3	1 = 0—10 VDC 2 = 0—20 mA 3 = PWM	1
14	Damper position angle overwrite	unsigned integer	Damper position angle overwrite (Available in Modbus Mode)	0— 900	900 = 90 °	0
15—16			Reserved, return 0			
17	Minimum damper position angle	unsigned integer	Minimum Damper position	0 —Max. position	300 = 30 °	0
18	Maximum damper position angle	unsigned integer	Maximum Damper position	Min. position—900	900 = 90 °	900
19	Test damper functionality	unsigned integer	Test functionality of actuator damper	0, 1	0 = Idle 1 = Testing functionality	0
20	Reset damper to zero position	unsigned integer	Reset to damper 0° position	0, 1	0 = Idle 1 = Active	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***