

FIMX8 | AIR FILTER MONITOR

Modbus register map



MODBUS REGISTER MAP

INPUT REGISTERS					
		Data type	Description	Raw data	Values
1	Differential Pressure Channel 1	unsigned integer	Measured differential pressure channel 1	0—1.000	100 = 100 Pa
2	Filter Warning Status Channel 1	unsigned integer	Status of the filter according to the measured pressure	0—1	0 = OK 1 = Filter warning
3	Filter Alarm Status Channel 1	unsigned integer	Status of the filter according to the measured pressure	0—1	0 = OK 1 = Filter alarm
4	Sensor Fault Channel 1	unsigned integer	Indicates a failure in pressure sensor 1	0—1	0 = Sensor OK 1 = Sensor Fault
5	Differential Pressure Channel 2	unsigned integer	Measured differential pressure channel 2 (only available in FIM28-1K0-XX)	0 – 1.000	100 = 100 Pa
6	Filter Warning Status Channel 2	unsigned integer	Status of the filter according to the measured pressure of channel 2 (only available in FIM28-1K0-XX)	0—1	0 = OK 1 = Filter warning
7	Filter Alarm Status Channel 2	unsigned integer	Status of the filter according to the measured pressure of channel 2 (only available in FIM28-1K0-XX)	0—1	0 = OK 1 = Filter alarm
8	Sensor Fault Channel 2	unsigned integer	Indicates a failure in pressure sensor 2 (only available in FIM28-1K0-XX)	0—1	0 = Sensor OK 1 = Sensor Fault
9—10			Reserved, return 0		

HOLDING REGISTERS						
		Data type	Description	Raw data	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 1 = 9.600 4 = 57.600 2 = 19.200 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	1.120—1.124	1.120 = FIM18-1K0-WF 1.121 = FIM18-1K0-EW 1.122 = N/A 1.123 = FIM28-1K0-WF 1.124 = FIM28-1K0-EW	
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—9			Reserved, return 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	Filter Warning Pressure channel 1	unsigned integer	Pressure level in Pa which alerts that the filter starts to clog	0—Filter Alarm Pressure channel 1	100 = 100 Pa	50
12	Filter Alarm Pressure channel 1	unsigned integer	Pressure level in Pa which alerts that the filter is clogged and needs cleaning/replacement	Filter Warning Pressure channel 1—1.000	100 = 100 Pa	100
13—19			Reserved, return 0			
20	Recalibrate Sensor Channel 1	unsigned integer	Recalibrate sensor 1	0—1	0 = Idle 1 = Recalibrate	0

HOLDING REGISTERS						
		Data type	Description	Raw data	Values	Factory default values
21	Filter Warning Pressure channel 2	unsigned integer	Pressure level in Pa which alerts that the filter starts to clog (only available in FIM28-1K0-XX)	0—Filter Alarm Pressure channel 2	100 = 100 Pa	50
22	Filter Alarm Pressure channel 2	unsigned integer	Pressure level in Pa which alerts that the filter is clogged and needs cleaning/replacement (only available in FIM28-1K0-XX)	Filter Warning Pressure channel 2—1.000	100 = 100 Pa	100
23—29			Reserved, return 0			
30	Recalibrate Sensor Channel 2	unsigned integer	Recalibrate sensor 2 (only available in FIM28-1K0-XX)	0—1	0 = Idle 1 = Recalibrate	0
31	LEDs Brightness	unsigned integer	Brightness of the LEDs	0 – 10	0 = OFF 1 = 10 % 2 = 20 % 3 = 30 % 4 = 40 % 5 = 50 % 6 = 60 % 7 = 70 % 8 = 80 % 9 = 90 % 10 = Full brightness	5
32—40			Reserved, return 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						