

# **Model JQBW-8**

# Wall Mount Dust Sensors

# WALLS STATE

# **DESCRIPTION**

The wall-mounted JQBW-8 series dust sensors are low profile, unobtrusive, and designed for installation in any space or conference room. It takes count of the dust number in a liter of air automatically. The transmitter controller includes analog output (0-5V or 4-20mA), a mounting/wiring sub-base, and a Lifetime Calibration Guarantee. All JQBW-8 series sensors offer a SPDT relay (normally open or closed) and can be custom programmed to a specific measurement and output range using the software interface or on-board keypad (display units).

#### PERFORMANCE SPECIFICATIONS

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Supply voltage	24VDC (18-30V)			
Power	Normal 42mA, maxim 100mA			
Range	0-8.8K/L, or 7.1-9.0 Cleanliness (ISO14644-1 standard)			
Accuracy (25°C)	±10%			
Dust diameter	>1\mum >2\mum >2.5\mum			
Output	Current: 4 to 20mA ( Load $< 500\Omega$ ) Voltage: 0-5V/10VDC ( Load $> 1K\Omega$ ) Communication: RS-485/RS-232 Relay: 2 (2A/30VDC, 0.4A/125VAC)			
Response time	<1min (0-90% RH)			
Long-term stability	Temperature: <0.1°C/year			
Operating environment	0-50℃, 5%RH~95%RH			
Display dimension	54mm x 45mm (128x64 dot LCD)			
Mounting dimension	180mm x 130mm x53mm (White Color ABS)			

#### **FEATURES**

- user setup 3 dust diameter (1µm, 2µm or 2.5µm)
- ±10% accuracy
- 128x64 dot LCD display with blue back
- wall-mounted installation easily
- 4-20mA, 0-5Vdc, RS-232/485 and relay outputs

#### **ORDER CODES**

JQBW-8				
	I1	Current 4ma to 20mA		
	V1	Voltage three-wire 0 - 5VDC		
	V2	Volta	ige th	ree-wire 0 - 10VDC
	W1	RS-485(max 127 nodes, 1.2km)		
	W2	RS-232		
		S1	S1 >1 µm	
		S2	>2µm	
		S3	>2.5µm	
			R1 1 relay output	
			R2 2 relay output	

## **ELECTRICAL CONNECTION**

## Supply and analog outputs connection

Code	Red	Yellow	Black
I1	+24V	signal	GND
V1	+24V	signal	GND

#### **Communication connection**

Code	TX	RX
W1	485+(A)	485-(B)
W2	232Tx	232Rx

# **Relay output connection**

Code	NC	COM	NO
H-alarm	Normal close	Commonality	Normal open
L-alarm	Normal close	Commonality	Normal open

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# **COMMUNICATION SPECIFICATIONS**

#### **Protocol**

**Data Format:** 1 start bit, 8 data bit and 2 end bit. **Protocol type:** MODBUS RTU (Hex data)

-	mobbes it e (new data)							
	Addr	03	00	00	00	01	CRCH	CRCL

Example: If Addr=1 then

# Command:

	01	03	00	00	00	01	31	CA
R	esponse:							

#### Response

# Setting baud rate and communication address:

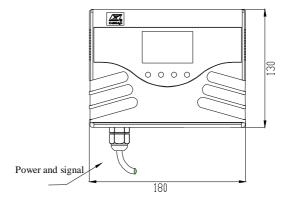
Please read the user manual of product.

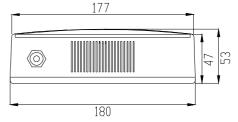
# **NOTES**

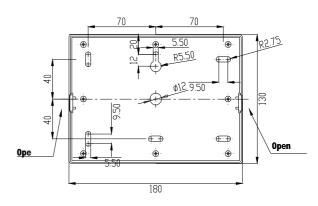
Level	Dust number (K/Liter)
ISO7.1	0.1
ISO7.5	0.3
ISO8	0.7, 0.8,
ISO8.1	0.9~1.0
ISO8.2	1.1~1.3
ISO8.3	1.4~1.6
ISO8.4	1.7~2.1
ISO8.5	2.2~2.6
ISO8.6	2.7~3.4
ISO8.7	3.5~4.3
ISO8.8	4.4~5.3
ISO8.9	5.4~6.7
ISO9	6.8~8.8

- The transmitter should be installed in a steady area, avoid from direct sunshine, kept away from windows, air conditioning and central heating system etc. And it should not be installed on the wall which opposite the window or door in the room.
- The transmitter must be preventing from the chemical agent, oil, dust and dew, ice condition. And you must avoid using the product in the condition that temperature acuity.

# **MOUNTING DIMENSION**







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