

XW-DW101-5R

Five-channel non-locating leak detector

Product Specification



- ◆ RS - 485 communication
- ◆ Dual RJ45 ports
- ◆ Five-channel detection
- ◆ Stable & Reliable
- ◆ Simple & Pretty

Product Overview

XW-DW101-5 Five-channel non-locating leak detector is a simple and cost-effective liquid leakage detection equipment, with 5 groups of channels independent detection function. It can not only connect to leak detection cable for detection, but also can be used with other detection probes for different detection environment requirements. The 485 signal output by the detector can be integrated with various monitoring systems to achieve remote monitoring.

Application & Features

Application

- IDC
- Data Centre
- Intelligent Building
- Museum
- Warehouse

Features

- Using industrial grade electronic components, can not only ensure high sensitivity, but also reduce the false alarm caused by various external factors. Adopt electromagnetic compatibility design, anti-surge, anti-static, anti-EFT and other protection functions.
- With spring screw for installation. When leakage occurs, the leakage indicator lights up, and returns

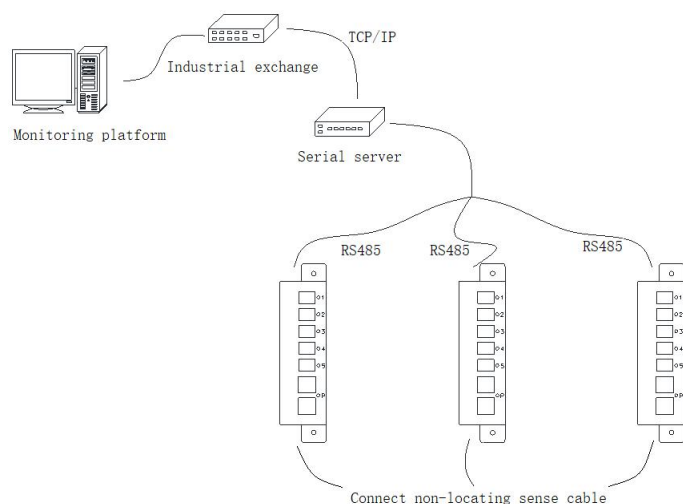
to normal state automatically after danger elimination, no need manual operation.

- With five groups of independent detection channels, can connect five leakage detection cables as the same time. A single channels can connect 500 meter leak detection cable to monitor the leakage status of each area which suitable for multiple leak detection areas.
- Can output RS485 signal and connect with monitoring platform, the maximum serial 128 devices, using the standard MODBUS protocol, easy to integrate the remote monitoring system.
- Dual RJ45 interface. Power supply and communication are integrated into the RJ45 interface, and the devices can be connected in series through the dual RJ45 interface.

Technical Data

Sensing performance	Response time	≤2s
	Detection distance	Single channel 500m, total detection range 2500m
Environmental rating	Operating Temperature	-20°C~70°C
	Operating humidity	0~95%RH(No condensation)
Power supply	Supply voltage	DC 9~30V(recommend 12V DC)
	Power Consumption	≤0.5W
RS485 interface	Communication protocol	MODBUS-RTU
	Bus address	1~254(default 1)
	Baud rate	1200, 2400, 4800, 9600(default), 19200bps
	Data format	N,8,1
EMC protection grade	ESD	Contact discharge±8KV, Air discharge±15KV
	EFT	±2KV

Operation Principle

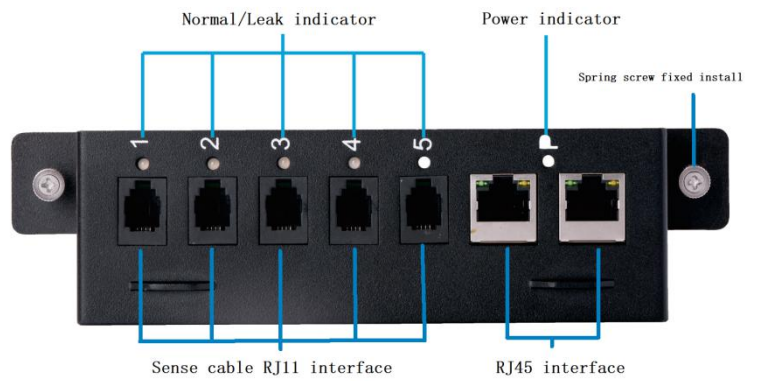
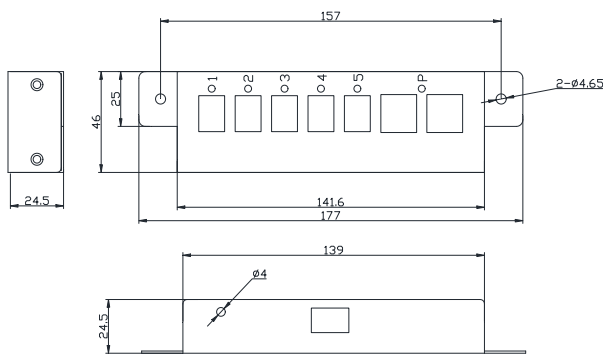


Detection system topology diagram

Five-channel non-locating leak detector connect to non-locating sense cable and install in the detection area. Uploaded liquid leak data to upper computer through RS485 signal, and monitor liquid leakage status through monitoring platform.

Installation

- ◆ With 2 sets of RJ45 interfaces which integrates power supply and communication. Only 1 set of interface is required for power supply and communication, other interface is to cascade other temperature-humidity devices.
- ◆ DC 9~30V power input (DC12V is recommended to ensure long-term working stability). All operations are under power-off. Power on only after all components are properly connected.
- ◆ Connect the power cable according to the terminal identifier. "+12V" connects to the positive power supply, and "GND" connects to the negative power supply.
- ◆ Please connect the power cable according to the terminal identifier. "+12V" connects to the positive power supply, and "GND" connects to the negative power supply.
- ◆ Please connect the communication cable according to the terminal identifier. 485A is positive and 485B is negative. If the positive and negative terminals are incorrectly connected, the communication fails. With five groups of RJ11 sense cable interface, connect RJ11 plug PIN.1 and PIN.2, can connect the sense cable according to the requirements.



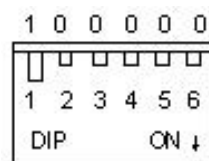
RJ45 Interface defines							
1-orange&white	2-orange	3-green&white	4-blue	5-bule&white	6-green	7-brown&white	8-brown
+12V	+12V	/	GND	GND	/	485A	485B

Debug Instructions

- ◆ Power on the controller and the power indicator is steady on. Otherwise, the power supply or controller is faulty.
- ◆ Take a some water (non-purified water) and soak the sense cable in water. After one second, the relay will act and LEAK's indicator be red. After drying the water on cable, LEAK's indicator went off.
- ◆ Adjust the detection sensitivity by adjusting the knob, clockwise adjustment means lower sensitivity, counterclockwise adjustment means higher sensitivity.

Address Setting Instructions

Dip switch(DIP6 to DIP1) is used to set the sensor address, and communicate with the upper device though Modbus-RTU protocol. DIP6 was upper bit and DIP1 was lower bit. Combine DIP6 to DIP1 in descending order and add 1 to obtain the actual IP address. For example, if the IP address is 2, set the IP address as shown in the following figure:



Note :

1. Toggle the dip switch to ON, indicates 1
2. Default is OFF, indicates address 1

The setting of dip switches(DIP1 to DIP6) are as follows:

DIP6~DIP1	Address	DIP6~DIP1	Address	DIP6~DIP1	Address
0 0 0 0 0 0	1	0 0 0 1 1 0	7		..
0 0 0 0 0 1	2	0 0 0 1 1 1	8	1 1 1 0 1 1	60
0 0 0 0 1 0	3	0 0 1 0 0 0	9	1 1 1 1 0 0	61
0 0 0 0 1 1	4	0 0 1 0 0 1	10	1 1 1 1 0 1	62
0 0 0 1 0 0	5	0 0 1 0 1 0	11	1 1 1 1 1 0	63
0 0 0 1 0 1	6	0 0 1 0 1 1	12	1 1 1 1 1 1	64

Notices

- ◆ Please don't touch the detector with wet hands.
- ◆ Please don't modify or disassemble the detector.
- ◆ Please connect cables when the detector when power-off.
- ◆ Check the load capacity of the power supply when connecting multiple devices.
- ◆ Avoid contact with metal files, grease, pipe paint and other contaminants.
- ◆ Before installation, confirm the rated voltage of detector and the power supply voltage.
- ◆ During regular inspection and maintenance, avoid using organic solvents and wipe with dry cotton yarn.

Certificates



We recommend that you use this manual under the guidance of professional personnel. If the product is damaged by violation operation or a third party force majeure such as fire, flood, lightning and natural disaster, Xiangwei will not assume any responsibility.

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