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**FLD-902D EHV CABLE
SHEATH FAULT PINPOINTING GENERATOR**

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Transmitter

1.Introduction:

Overview:

Good solution of the pinpointing of single phase to earth fault as signal transmitter and it can also matched with FLD-903P EHV cable sheath fault pinpointer to do sheath fault pinpointing.

1.1 Feather

- Built-in high voltage constant current source, the output voltage and current can be adjusted continuously, allowing long-term short-circuit operation.
- With ground locking, high voltage zero start and other multiple safety protection functions
- Provide signal source for the fault point of the EHV cable sheath.
- The transmitter can be powered by mains and generators, and the sensor and receiver can be powered by dry batteries
- Light weight and easy to portable.

1.2 Specification

- Accuracy : 0.2m
- Output frequency:1Hz
Open circuit voltage: effective value of fundamental wave 0~2800V
Pulsating DC: peak 8kV, amount to 10kV phase voltage peak
Short circuit DC: effective value of fundamental wave 0~35mA (pulsating DC, peak 100mA)
- Transmitter power supply: AC 220V mains, can be connected to generator (output power $\geq 1500W$)

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- Max. Power:900W
- Dimension: transmitter 417mmx234mmx318mm
- Weight: transmitter 16.8kg
- Conditions of use: Temperature :-10°C-40°C, humidity: 5-90% RH, altitude <4500m

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2.Equipment Composition

The transmitter panel as below:

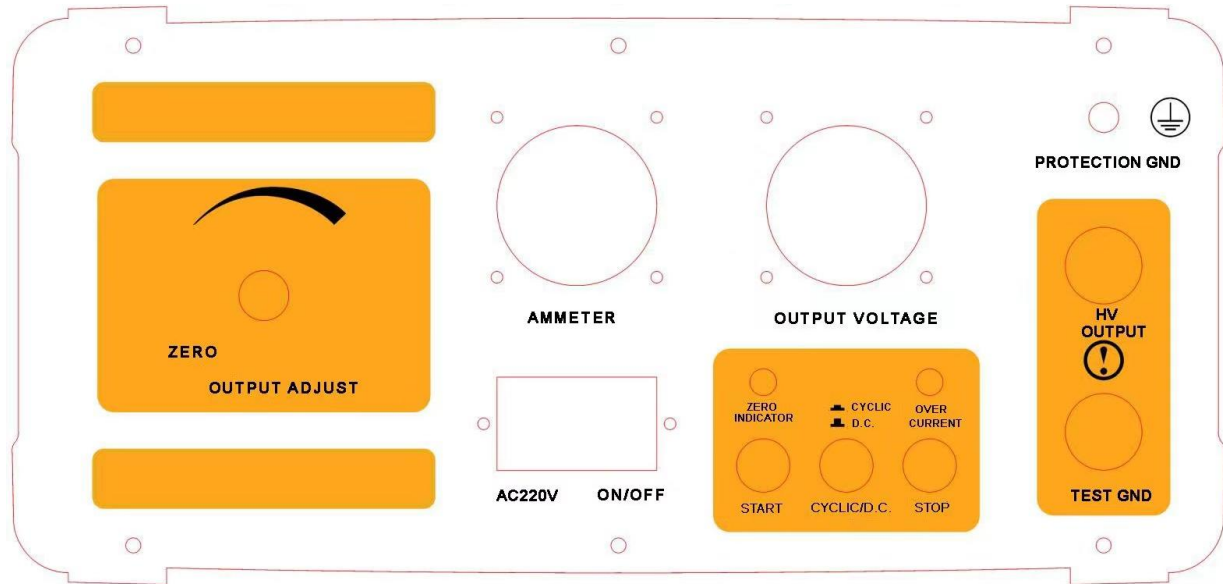


Fig.1 transmitter panel

Power socket: contact with 220V power

Protective tube: change protective tube if needed

Power switch: turn on/off the device

HV on: when turn on the device, press this button when output adjustment on the ZERO position to output HV signal.

HV off: Stop HV output

Zero: indicate that the output voltage on the zero position

Protect: when the device become protect mode, this indicator will be bright to show the device is in protect blocking state. Adjust the Output adjust button to Zero position to reset the indicator.

Output adjust: adjust the output current and voltage. When it on the Zero position, to press HV on button to start the transmitter signal output function.

Protect current: indicate the input current value. If current is over default max. 4A,the device will be stopped. Then it is needed to zero the output adjustment button to set protective circuit to readjustment the current.

Output voltage: indicate the value of output voltage

Earth: earth terminal to contact with the earth line to connect the earth mat.

HV out: Used to indicate the output voltage of the device

Protection ground terminal: Used to connect the PGND cable to the earth network

Test ground socket: connected to the working ground wire, connected to the earth network.

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3.Equipment Composition

Operating principle

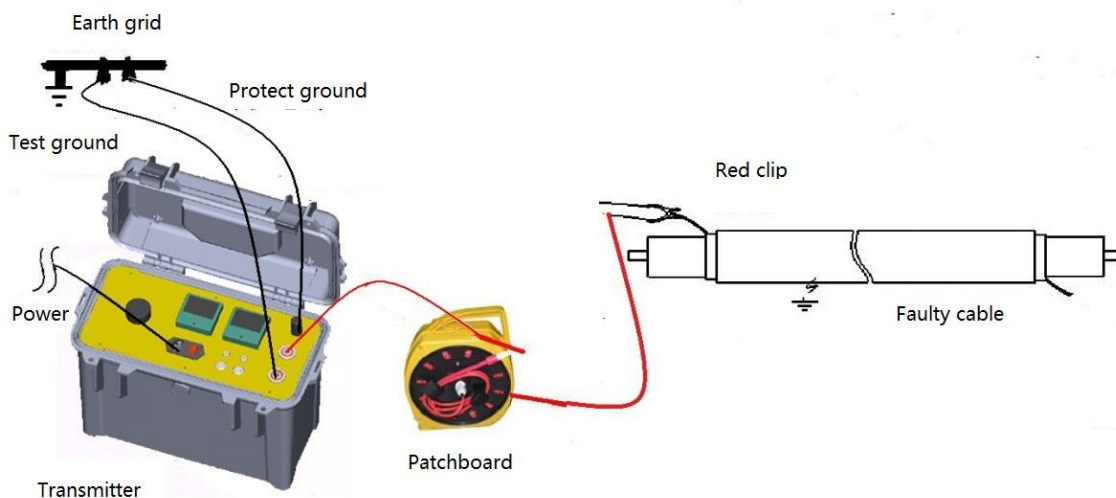
After the fault line is out of service, the transmitter first applies voltage to the line to reproduce the fault. The current is emitted by the transmitter, flows through the fault line, enters the ground at the ground point and returns to the transmitter through the ground. After the fault line is out of service, the transmitter first applies voltage to the line to reproduce the fault. The current is emitted by the transmitter, flows through the fault line, enters the ground at the ground point and returns to the transmitter through the ground.

The output of the transmitter is pulsating DC signal with an ultra-low frequency of 1Hz. The lower the frequency is, the less it is affected by the distributed capacitance of the system. Theoretically, pure DC signal has the strongest ability to resist the influence of distributed capacitance, but it is difficult to avoid the influence of geomagnetic field by using pure DC signal. Through theoretical calculation and practical verification, 1Hz signal can meet most of the field test requirements.

Sheath fault pinpointing

EHV cable sheath fault locator has high voltage pulse output function, can be used for EHV cable sheath fault point signal source.

3.1 Wiring of pinpointing



Connect the power line and the high-voltage output line of the EHV cable sheath fault signal generator, and then connect the red clamp to the fault phase sheath; The black clamp and the ground clamp are

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connected with the ground body; The "protected area" is connected to the ground. Perform safety monitoring on the other end of the faulty cable.

3.2 Grounding checking

Turn on the power switch and the power indicator is on, indicating that the rangefinder is well grounded. If the power indicator is blinking, the resistance between the test ground and the protection ground is too high. Turn off the power supply and check whether the protection grounding and working grounding are reliable. There may be an oxide layer between the clamp and the grounding body. Use the clamp to hold the grounding body and remove the oxide layer by rubbing to ensure reliable connection.

3.3 HV power adjustment

Verify that the distance finder is connected correctly and that safety measures are taken at the peer end. Turn on the power switch and the power indicator lights up, but there is no signal output from the transmitter at this time.

Start-up output:

To "output adjustment knob to" zero, "zero indicator lights, and then press" high pressure close "button, slowly adjust the" output adjustment knob clockwise, "zero indicator lights, transmitter output, continue to adjust" output adjustment knob, make the input current is the largest, and protect the light is not bright, if protection, when the indicator lamp light show line fault resistance is small, The input current is too large. At this time, you need to adjust the "output adjustment" knob counterclockwise to zero, and then adjust it to the appropriate position.

To stop output:

To stop the output, press the "High Pressure" button.

After the work is finished, turn off the power and remove the wiring.

3.4 Fault pinpointing

The cable fault step voltage point meter is used to point near the fault location results. Refer to the user manual for the usage of cable fault step voltage point meter.

After the completion of the test, the power supply of the instrument should be turned off. After fully discharging all the protective layers with the discharge rod, the instrument wiring should be removed, and the wires should be closed for next use.

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4.Matters need attention

The instrument is high voltage equipment, use should be operated according to the rules, at the same time, there should be corresponding monitoring measures. After the instrument is used, be sure to fully discharge the cable to ensure personal safety.

It is forbidden to disassemble the instrument. Some circuits inside the instrument have high voltage energy storage.

If there is a problem with the instrument, please do not try to repair it by yourself, so as to avoid the danger of electric shock. Please contact our company immediately for professional handling.

Safety Warning:

The maximum output voltage of the instrument is 10kV, Be safe!

Stay away from the output clamp while the instrument works!

Do not insert metal objects into the instrument!

Do not disassemble the instrument! In case of electric shock!

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