



HIOKI

2001

3930 HIGH VOLTAGE SCANNER

Safety Standards
Measuring Instruments



Automatic insulation testing and AC/DC voltage endurance testing

Multi-point Automatic Testing for High Voltages

Max. 32 ch



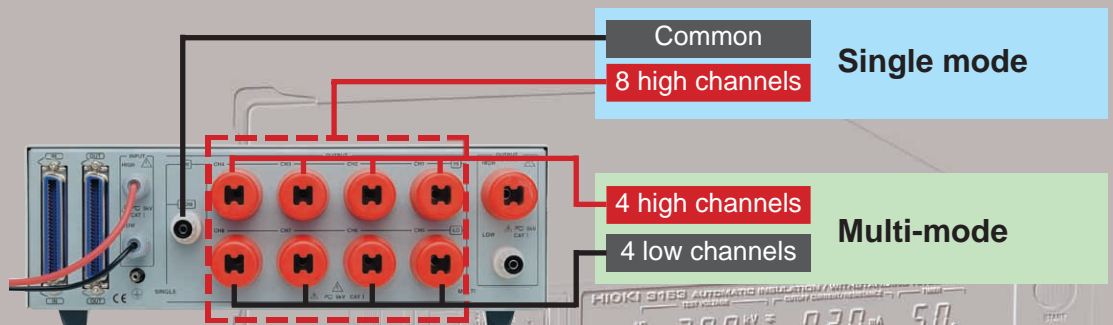
The 3930 is a high voltage scanner that allows high voltage inputs to be output from any channel. A single unit is equipped with 8 channels (using single mode), and up to four units can be connected to give a total of 32 channels. In addition, the 3930 can be used in combination with the 3153 AUTOMATIC INSULATION/WITHSTANDING HiTESTER, displaying its capabilities as an unattended automatic testing device for multiple point insulation and AC/DC voltage endurance testing.

● Emphasis on Safety

The 3930 features isolated high voltage input and output, as well as insulated control signal lines and an insulated power cord. Further, when multiple units are connected, the 3930 can detect wrongly set (duplicated) IDs and stop all output.

2 modes

The 3930 has two operation modes, single mode and multi-mode. The single mode has a common channel with eight high channels, while the multi-mode has four high and four low channels, and the 3930 can scan any point on these channels.



ISO14001
JQA-E-90091



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Control the 3930 using a multi-purpose sequencer

In addition its control using the 3153's program function, the 3930 is a multi-purpose high voltage scanner that can be controlled using general logic and a sequencer.

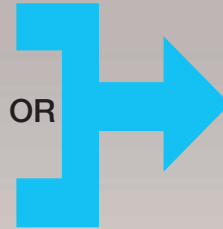
A maximum of four units can be connected at any one time.

- When using the 3930 in combination with the 3153, a separate power source is not necessary, since power is supplied from the control signal input connector.



Sequencer

OR



■ Functions

- Operation modes** : Multi- and single modes
- Mode setting method** : External switch
- Number of channels** : Multi-mode; 4 high channels and 4 low channels
Single mode; 8 high channels and a common channel
- Rated voltage used** : AC 5 kV/DC 5 kV
- Operation display** : The lamp lights when power is supplied to the unit
The lamp lights when the specified channels are used
- Control method** : General-purpose control

■ Relay area

- Maximum open and closed voltage** : 5000 V DC, 5000 V AC
- Maximum open and closed current** : 1.0 A (open and closed capacity: 50 W)
- Contact point indirect contact resistance** : 500 mΩ or less, with 1 mA AC
- Contact point maximum capacity** : 50 W
- Operation time** : 6 ms or less
- Recovery time** : 6 ms or less

■ Control signal

- ID authentication signal** : ID_XE_OUT: ID exists (X; 0 to 3)
ID_XE_OUT: ID overlapping (X; 0 to 3)
- Signal level** : The signal level voltage (V_{iso_v}) is input externally, and the voltage (V_{iso_v}) must be within the range 5 to 24 V
- Input signal level** : Hi; V_{iso_v} + 1.0 V max., V_{iso_v} - 1.5 V min.
Lo; V_{iso_v} - 4.0 V max., V_{iso_com} - 0.5 V min.
- Output signal level (with no load)** : Open collector output
Hi; V_{iso_v} max, V_{iso_v} - 0.5 V min.
Lo; V_{iso_com} + 0.5 V max., V_{iso_com} - 0.5 V min.

■ General specifications

- Degree of Accuracy** : Standards for current leakage when applying voltage
Single mode, no output cable, and all output relays turned on for both AC and DC.
When applying DC (1000 V); 0.1 μA or less/unit
When applying AC (5 kV, 50/60 Hz only); 0.4 mA or less/unit
(Differs depending on the status of the connection cable)
- Operation temperature range** : 0°C to 40°C, 80% rh or less (no condensation)
- Storage temperature range** : -10°C to 50°C, 90% rh or less (no condensation)
- Operation environment** : Indoors, altitude of 2000 m or less
- Withstand voltage** : High voltage terminal - between the chassis:
AC 10 kV, 10 mA, 1 min
- Power** : V_{scv} 24 V DC, ±10%
(applied using the control signal input connector)
- Maximum rated power** : 12 VA
- Measurements** : Approx. 316 (W) × 100 (H) × 350 (D) mm
- Mass** : Approx. 4.2 kg
- Standard accessories** : Connection cables
9615-01 H.V. TEST LEAD (red: high voltage side) × 8
9615-02 H.V. TEST LEAD (black: return side) × 1
- Conformance tandards** : EMC; EN61326-1:1997+A1:1998 CLASS A
Safety; EN61010-1:1993+A2:1995
Power supply unit
Degree of pollution: 2, overvoltage category I
(anticipated overvoltage category: 330 V)
- Other** : Output prevention protection circuit using the ID authentication signal
Output prevention protection circuit using the mode authentication signal
LED display of the terminal being output



9615-01 H.V. TEST LEAD (red: high voltage side)
9615-02 H.V. TEST LEAD (black: return side)

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