Manufacturing and development of engines, motors and other products and the measurement of vibration of devices installed in power generating facilities or manufacturing plants

The UV-16 is a 2-channel charge amplifier that is compatible with the input of piezoelectric accelerometers and accelerometers with built-in preamplifier. A multi-channel charge amplifier can be configured by coupling together a maximum of 16 units and 32 channels.

- Equipped with LCD display, overload indicator LED, operating switch, input/output terminals, power input terminals and coupling connectors
- It can be mounted on JIS standard racks even with a small number of channels (max. 12 units, 24 channels)
- AC adapter or battery unit BP-17 can be used as the power source
Specifications

Input
- Channels: 2
- Connector: Microdot connector
- Types: Piezoelectric accelerometer
- Accelerometer with built-in preamplifier: 24 V, 4 mA

Measurement modes and units
- ACC (acceleration): m/s², VEL (velocity): mm/s, DISP (displacement): mm
- Sensitivity setting:
  - Setting range:
    - 0.100 to 0.999 in 0.001 intervals
    - 1.00 to 9.99 in 0.01 intervals
    - 10.0 to 99.9 in 0.1 intervals
- Units:
  - pC/mV (piezoelectric accelerometer)
  - mV/mm² (piezoelectric accelerometer with built-in preamplifier)
- Range:
  - 1 stage (selected value range differs with the sensitivity setting)

Ambient conditions for operation
- HPF: off, LPF: off, minimum range
- Inherent noise:
  - When input capacitance: 1 000 pF, sensitivity: 5.00, piezoelectric accelerometer

Output (current output)
- Calibration
- Output signal for Sine wave, 80 Hz ± 5 %, output signal 1 V (peak) ± 2 %
- Overload indication: red (by channel)
- Warning display LED×2
- Display Segment LCD with backlight

Filter
- Settable to HPF or LPF by channel
- HPF:
  - OFF, 10 Hz, 20 Hz, 50 Hz
- LPF:
  - 1 kHz, 3 kHz, 10 kHz, OFF
- Display content:
  - Settings, bar graph (100 ms cycles)

Warning display
- LED×2
- Overload indication: red (by channel)

Output signal for calibration
- Sine wave, 80 Hz ± 5 %, output signal 1 V (peak) ± 2 %

Output current output
- Output terminals: BNC connector × 2
- Output impedance: 50 MΩ (load resistance 10 kΩ or more)
- Output voltage precision:
  - 80 Hz full scale
  - 1 V (Peak) ± 2 %
  - VEL (velocity): 1 V (Peak) ± 3 %
  - DISP (displacement): 1 V (Peak) ± 5 %
- Max. output voltage:
  - ±10 V (Peak) or more

Crosstalk between channels
- ±80 dB or less

Inherent noise
- When input capacitance: 1 000 pF (peak), sensitivity: 5.00, piezoelectric accelerometer
- HPF: off, LPF: off, minimum range
- ACC (acceleration):
  - 0.01 m/s² (RMS)
- VEL (velocity):
  - 0.1 mm/s (RMS)
- DISP (displacement):
  - 0.015 mm/s (RMS) or less

Power requirements
- DC IN: 9-15V
- Compatible AC adapters: NC-99
- Special battery unit: BP-17

Resume function:
- Settings are retained in memory when the power requirement is turned off and are restored when the power requirement is turned on again

Ambient conditions for operations:
- 5 °C to 40 °C, 90 % RH or less (no condensation)

Dimensions and weight
- 150 (H) × 36 (W) × 179 (D) mm, Approx. 500 g

Options

Battery unit
- BP-17:
  - Using by connecting to UV-16
  - When using dry batteries, the BP-17 can power three UV-16 units.
  - (for one unit up to sixteen UV-16 units can be powered by using the BP-17 and AC adapter)
- IEC R14 (size C) batteries × 8
- Operating time:
  - 17 hours (LR14 Alkaline batteries), 5 hours (R14PU Manganese batteries)
  - CHARGE-setting, normal operating conditions, 25 °C
  - 8 hours (LR14 Alkaline batteries), 2.5 hours (R14PU Manganese batteries)
  - CCLD-setting, normal operating conditions, 25 °C

AC adapter
- NC-99:
  - Using when operating the unit with AC electrical power
  - NC-99: AC100 V to 240 V, 12 V DC, 5 A (for max. 16 units)

Optional accessories

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Specifications subject to change without notice.