Highly Reliable welding by “Visualizing” welding process

QC-450 High Performance Welding Monitor

- Analysis and comparison of accumulated transition data help to comprehend:
  - Variation among batches
  - Feedback to pre-process for improvement
  - Variation among facilities
  - Common quality control worldwide

- 10 I/O output (Any 7 points), 6 process control output (Any 6 points)

- Feedbacks support standardized quality by weldistop by displacement control, etc.

- Condition Setting
  - Measure
    - Easy Setting
    - Current waveform
    - Voltage waveform
    - Analog waveform (Temperature)
    - Displacement waveform

- Max. sampling frequency: 50kHz (Min. resolution: 0.02ms)
- Max. welding time: 3 sec
- Simultaneous measurement of 2 stage welding by one unit
- Measurement Items:
  - Voltage, Current, Power, Resistance, Conduction angle, Displacement, Pressure, Weld time, 2 external analog input (Thermocouple, Radiometer, etc.)

- 5.7” Color Touch Panel
- Visualize
- Via Ethernet
- Data Transfer
- IoT
- Integrated Printer
- Record
- Easy data saving
- Display Max. 10 items (Measured/Calculated/Counted)
- Run Chart display visualizes the transition
- Analog Measurement Item: 11 Types (Unit: 22 kinds)

- Visualization of the transition helps to estimate and comprehend:
  - Timing of electrode exchange
  - Timing of switching welding parameter
  - Degradation of equipment
  - Maintain quality by timely maintenance

- Thermal printer
- CF card

Nippon Avionics Co., Ltd.
**QC-450**

**High Performance Welding Monitor**

### Item Specification
- Measurement Current (RMS/PEAK), Voltage (RMS/PEAK), Weld time (Weld cycle), Displacement, Pressure, Conduction angle, External analog X2

### Monitor Display
- Current (RMS/PEAK), Voltage (RMS/PEAK), Weld time (Weld cycle), Displacement, External analog X2, Pressure, Conduction angle, Power, Resistance, Calculated value

### Waveform Display
- REAL Current, AVE Current, REAL Current, AVE Current, Power, Resistance, Displacement, Pressure, External analog X2, Calculated value, Time

### Run Chart Display
- PEAK Current, RMS Current, PEAK Voltage, RMS Voltage, Power, Resistance, Displacement, Pressure, External analog X2, Calculated value, Time

### Current Measurement Range
- 50~2,000A, 100~20,000A, 1,000~100,000A

### Time Measurement Range
- 0.00~3000.00ms, 0.0~300.0 CYC

### Display
- 5.7" color LCD touch panel

### Number of Conditions
- 255

### Printer
- Thermal printer

### Interface
- **I/O**
  - DC24V NPN, PNP, and external power
  - Judgment output: 10 lines
  - Process control output: 6 lines
- **Communication**
  - Ethernet
- **Memory Card**
  - CF Card

### Input Power
- AC100 to 240V ±10% 50/60Hz

### Weight
- 5.6kg

### Dimension
- W170 x H256 x D338mm

- *Optional board is required for measurement of displacement and pressure. Also, sensors are separately sold.*

### Option
- Toroidal Coil
- Toroidal Coil (x10)
- AC Cable

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The appearance and specification are subject to change without notice.