

Product Specification SheetModel: MS3920Chassis-Mount CT Transmitter with Isolated Dual Output(RMS Calculation Type)

DESCRIPTION

The MS3920 is a chassis-mount CT transmitter that measures a load current flowing through power equipment and converts it into mutually isolated dual channel DC output signals.

- ∇ A multi-slot chassis provides ease of maintenance and high-density mounting.
- ∇ Input, output 1, output 2, and power circuits are all isolated from each other.
- ∇ Equipped with a fuse on the DC power line as standard.

ORDERING INFORMATION

Ordering Code

SPECIFICATIONS

POWER SECTION

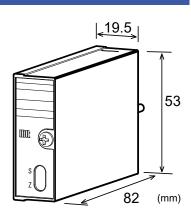
| Power | 24V DC±10% |
|-----------------|---|
| Requirement | |
| Power | Better than $\pm 0.1\%$ of span per 10% |
| Sensitivity | change in supply voltage |
| Power Line Fuse | 300mA fuse |
| Current | 55mA max. at 24V DC |
| Consumption | |

INPUT SECTION

| Input | ■ 0–1A AC, 50/60Hz ······ M1 | | | |
|--------------------|---|--|--|--|
| (Specify a code in | ■ 0–5A AC, 50/60Hz ······ M2 | | | |
| the field [1].) | | | | |
| Input Resistance | | | | |
| | 1A AC input: $25m\Omega$ (shunt resistor) | | | |
| Allowable Input | Continuous: 120% of the rated input value | | | |
| Current | Instantaneous: 10 times the rated input | | | |
| | value (within 3 seconds) | | | |
| Crest Factor | 3 max. | | | |
| |)N | | | |

OUTPUT SECTION

| Output | Output 1 / Output 2 ······Code |
|--------------------|--|
| (Specify a code in | ■ 1–5V DC / 1–5V DC ······V1 |
| the field [2].) | ■ 0–5V DC / 0–5V DC ······V5 |
| | ■ 0–10V DC / 0–10V DC ······V6 |
| | $= \pm 5 \text{V DC} / \pm 5 \text{V DC} \cdots \text{W5}$ |
| | $= \pm 10 \text{V DC} / \pm 10 \text{V DC} \cdots \text{W6}$ |
| | ■ 1–5V DC / 4–20mA DC ······C1 |
| | Note: Combinations of two outputs are |
| | only available as shown above. |
| Allowable | Voltage output: 2mA max. |
| Output Load | Current output: 300Ω max. |



MS3900

| Zero Adjustment | Approx. $\pm 2\%$ of span. | | | |
|-----------------|--|--|--|--|
| | (Adjustable by front-accessible trimmer) | | | |
| Span Adjustment | Approx. ±2% of span. | | | |
| | (Adjustable by front-accessible trimmer) | | | |
| ADDITIONAL | | | | |
| Option [3] | ■ Polyurethane conformal coating ···· /H | | | |
| PERFORMANCE | | | | |
| Accuracy Rating | Better than $\pm 0.25\%$ of span with at least | | | |
| | 10% input (at 25°C±5°C). | | | |
| Temperature | Better than $\pm 0.2\%$ of span per 10°C | | | |
| Effect | change in ambient. | | | |
| Response Time | 0.4s max. (0 to 90%) with a step input at | | | |
| • | 100% | | | |
| CMRR | 100dB min. (500V AC, 50/60Hz) | | | |
| Isolation | 4-way isolation between input, output 1, | | | |
| | output 2, and power. | | | |
| Insulation | $100M\Omega$ min. ($@, 500V$ DC) between | | | |
| Resistance | input, output 1, output 2, and power. | | | |
| Dielectric | Input / [Output 1, Output 2, Power]: | | | |
| Strength | 1500V AC for 1 minute (Cutoff current: | | | |
| e a en gan | 0.5mA) | | | |
| | Output 1 / Output 2 / Power: 500V AC for | | | |
| | 1 minute (Cutoff current: 0.5mA) | | | |
| Surge Withstand | Tested as per ANSI/IEEE C37.90.1-1989. | | | |
| Capability | | | | |
| Operating | Ambient temperature: 0 to 55°C | | | |
| Environment | Humidity: 5 to 90% RH (non-condensing) | | | |
| Storage | -10 to 60°C | | | |
| Temperature | | | | |
| <u></u> | | | | |
| PHYSICAL | | | | |
| Installation | Mounted in an optional chassis | | | |
| | (RC3900A-□□AI or RS3900-01TB). | | | |
| Wiring | Wired to an optional chassis (RC3900A- | | | |
| Ū | $\Box \Box AI$ or RS3900-01TB). | | | |
| | The supplied shunt resistor should be | | | |
| | connected to the terminal block. (The two | | | |
| | brackets of the resistor should be fixed to | | | |
| | the terminals A and B.) | | | |
| External | W19.5 × H53 × D82 mm | | | |
| Dimensions | | | | |
| Weight | 70g max. | | | |
| | - | | | |

| MATERIAL | |
|----------|--|
| Housing | ABS resin |
| PC Board | Glass fabric, epoxy resin (FR-4: UL 94V-0) |

PIN ASSIGNMENTS

| | PIN | SIGNAL | PIN | SIGNAL | |
|---|-----------------|---------|-----|------------------|--|
| | 1 | N. C. | 0 | + OUTPUT 1 | |
| [| 2 | N. C. | 0 | - OUTPUT 1 | |
| [| 3 | N. C. | 8 | + OUTPUT 2 | |
| [| 4 | N. C. | 4 | - OUTPUT 2 | |
| [| 5 | N INPUT | 6 | + POWER DC24V | |
| | 6 | L INPUT | 6 | - POWER D024V | |
| [| $\overline{}$ | | 0 | N. C. | |
| [| | | 8 | N. C. | |
| [| $\overline{}$ | | 9 | F. G. | |
| [| $\overline{\ }$ | | Ð | N. C. | |

BLOCK DIAGRAM

