

■ Standard Performance

- Accuracy rating: $\pm 0.1\%$ of span; $\pm 1\%$ of span for input from 1% up to 2%; accuracy is not guaranteed for output levels less than 0.5% of the span of a 0 to X mA output range type.
- Response speed: 150 ms, 63% response (10 to 90%)
- Effect of power supply voltage fluctuation: Within the accuracy range of span for power supply voltage fluctuation.
- Effect of ambient temperature change: $\pm 0.15\%$ of span for change of 10 °C

■ Safety and EMC Standards

CE:

EMC directive

- EN 61326-1 Class A Table 2^{*1} compliance
- EN 61326-2-3 compliance
- EN 61000-3-2 compliance
- EN 61000-3-3 compliance
- EN 55011 Class A Group 1 compliance

Low voltage directive:

- EN 61010-1, EN 61010-2-030
- Overvoltage category II^{*2}, Pollution degree 2^{*3}, Measurement category O (other)

CSA: CAN/CSA C22.2 No. 61010-1

- CAN/CSA C22.2 No. 61010-2-030
- Overvoltage category II^{*2}, Pollution degree 2^{*3}, Measurement category O (other)

UL: UL 61010-1 (CSA NRTL/C)

- UL 61010-2-030 (CSA NRTL/C)
- Overvoltage category II^{*2}, Pollution degree 2^{*3}, Measurement category O (other)

RCM: EN 55011 Class A Group 1 compliance

KC: Electromagnetic wave interference prevention standard, electromagnetic wave protection standard compliance

- *1 The instrument continues to operate at a measurement accuracy of within $\pm 20\%$ of the range during testing.
- *2 Overvoltage category II: Describes a number which defines a transient overvoltage condition. Implies the regulation for impulse withstand voltage. "II" applies to electrical equipment which is supplied from the fixed installation like a distribution board.
- *3 Pollution degree 2: Describes the degree to which a solid, liquid, or gas which deteriorates dielectric strength or surface resistivity is adhering. "2" applies to normal indoor atmosphere. Normally, only non-conductive pollution occurs.

However, if optional code /C0 or /FB is specified, the conformity to the safety and EMC standards is excluded.

■ Environment Standard

EU RoHS directive: EN IEC 63000
(However, when option code /C0 or /FB is specified, CE marking is not applicable because the product does not comply with the Safety and EMC standards.)

■ Power Supply and Isolation

- Power supply rated voltage:
100-240 V AC/DC \approx 50/60 Hz or
15-30 V DC \approx
- Power supply input voltage:
100-240 V AC/DC \approx (-15, +10%) 50/60 Hz
or 15-30 V DC \approx ($\pm 20\%$)
- Power consumption:
3.2 W at 24 V DC ; 3.1 W at 110 V DC;
6.1 VA at 100 V AC; 8.3 VA at 200 V AC
- Insulation resistance: 100 M Ω minimum at 500 V DC
between input, output-1, output-2, power
supply and grounding terminals mutually
- Withstanding voltage: 2000 V AC for one minute
between input, (output-1 and output-2),
power supply and grounding terminals
mutually;
1000 V AC for one minute between
output-1 and output-2 terminals

■ Environmental Conditions

Temperature: -10 to 55 °C (45 °C or less for side-by-side close installation*)

- * If the previous model (style S3.xx earlier) is installed together, the ambient temperature is 0 to 40°C.

Humidity: 5 to 90 % RH (no condensation)

Ambient Condition: Avoid installation in such environments as corrosive gas like sulfide hydrogen, dust, sea breeze and direct sunlight.

Magnetic field: 400 A/m or less.

Continuous vibration (at 5 to 9 Hz) Half amplitude of
3 mm or less (at 9 to 150 Hz) 4.9 m/s² or
less, 1 oct/min for 90 minutes each in the
3-axis directions.

Impact: 98 m/s² or less, 11 msec, 3-axis 3 times each
in 6 directions.

Altitude: 2000 m or less.

Installation location: Indoors

Warm-up time: At least 30 minutes after power on.

■ Transport and Storage Conditions

Ambient temperature: -25 to 70 °C

Temperature change rate: 20 °C per hour or less

Ambient humidity: 5 to 95 %RH (no condensation)

■ Mounting and Appearance

Construction: Compact plug-in type

Material: Modified polyphenylene oxide (casing)

Mounting method: Wall, DIN rail or dedicated VJ
mounting base (VJCE) mounting

Connection method: M3 screw terminals

External dimensions:

76 (H) \times 29.5 (W) \times 124.5 (D) mm
(including a socket)

Weight: Main unit; 100 g or less

Socket; 50 g or less

■ Accessories

Tag number label: 1 sheet

■ Customized Signal Specifications

● Output custom specification

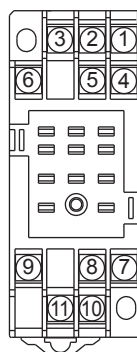
Table 1 Manufacturable Ranges

| | Current Signal | Voltage Signal |
|-------------------|----------------|----------------|
| Output range (DC) | 0 to 24 mA | -10 to +10 V |
| Span (DC) | 1 to 24 mA | 10 mV to 20 V |
| Zero elevation | 0 to 200% | -100 to +200% |

Note: Customized specifications for the output-1 signal within 0 to 20 mA DC or within -10 to +10 V DC comply with safety standards, EMC standards, and environmental standards.

- The above note is limited to the standard specification of output-2.
- Other customized specifications do not conform to these standards.

■ Terminal Assignments

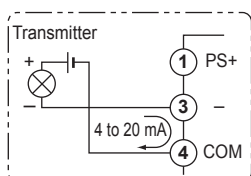


| | | |
|----|------------|-------|
| 1 | Input | (PS+) |
| 2 | Output-2 | (+) |
| 3 | Input | (-) |
| 4 | Input | (COM) |
| 5 | Output-2 | (-) |
| 6 | Do not use | |
| 7 | Output-1 | (+) |
| 8 | GND | |
| 9 | Output-1 | (-) |
| 10 | Supply | (L+) |
| 11 | Supply | (N-) |

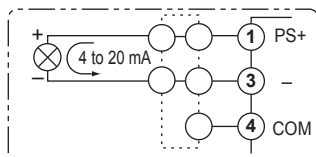
Do not use output-2 for the single-output type.

■ Block Diagrams

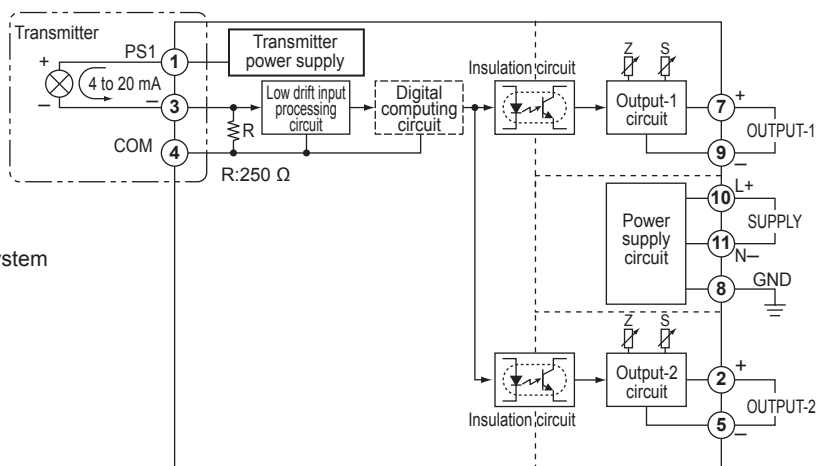
(1) Combination with two-wire type transmitter using external power supply



(2) Example to construct Intrinsically Safe System using Zener Barrier



(3) Combination with two-wire type transmitter using internal power supply



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■ External Dimensions

